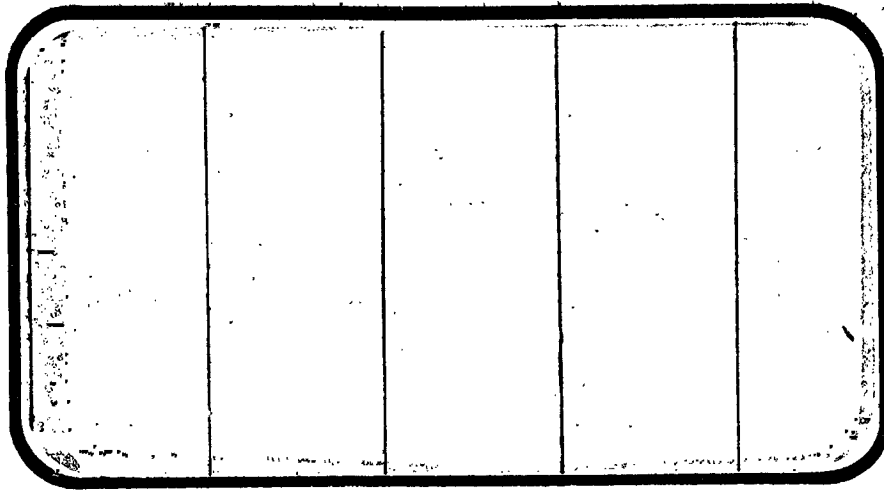


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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION



(NASA-CR-147619) RESULTS OF AN INVESTIGATION TO DETERMINE LOCAL FLOW CHARACTERISTICS AT THE AIR DATA PROBE LOCATIONS USING AN 0.030-SCALE MODEL (45-0) OF THE SPACE SHUTTLE VEHICLE ORBITER

N76-32236
HC # 21.25

63/18 Unclass
05360

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER
HOUSTON, TEXAS

DATA Management services
SPACE DIVISION  CHRYSLER CORPORATION

September 1976

DMS-DR-2245
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VOLUME 2 OF 2

RESULTS OF AN INVESTIGATION TO DETERMINE
LOCAL FLOW CHARACTERISTICS AT THE AIR DATA
PROBE LOCATIONS USING AN 0.030-SCALE MODEL (45-0)
OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION
140A/B (MODIFIED) IN THE NASA AMES RESEARCH CENTER
UNITARY PLAN WIND TUNNEL (0A161, A, B, C)

by

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Prepared under NASA Contract Number NAS9-13247

by

Data Management Services
Chrysler Corporation Space Division
New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: 11-094, 97-094, 87-094
NASA Series Number: OA161 A,B,C
Model Number: 45-0
Test Dates: March 6 through March 31, 1975
Occupancy Hours: 212

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RESULTS OF AN INVESTIGATION TO DETERMINE
LOCAL FLOW CHARACTERISTICS AT THE AIR DATA
PROBE LOCATIONS USING AN 0.030-SCALE MODEL (45-0)
OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION
140/B (MODIFIED) IN THE NASA AMES RESEARCH CENTER
UNITARY PLAN WIND TUNNEL (0A161, A, B, C)

by

M. E. Nichols, Rockwell International Space Division

ABSTRACT

This report documents the results of wind tunnel test 0A161 of a 0.030-scale model 45-0 of the Configuration 140A/B (Modified) Space Shuttle Vehicle Orbiter in the NASA Ames Research Center Unitary Plan Wind Tunnel facilities, conducted March 6, 1975 to March 31, 1975.

The purpose of this test was to determine local total and static pressure environments for the air data probe locations and relative effectiveness of alternate flight-test probe configurations. Testing was done in the Mach number range from 0.30 to 3.5. Angle of attack was varied from -8 to 25 degrees while sideslip varied between -8 and 8 degrees.

This report contains one volume of plotted data figures and a second volume of tabulated data.

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- G) M11, M21, M31, M13, M23, and M33 versus M
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NOMENCLATURE
General

| <u>SYMBOL</u> | <u>PLOT SYMBOL</u> | <u>DEFINITION</u> |
|---|--------------------|---|
| a | | speed of sound; m/sec, ft/sec |
| C _p | CP | pressure coefficient; $(p_1 - p_\infty)/q$ |
| M | MACH | Mach number; V/a |
| p | | pressure; N/m ² , psf |
| q | Q(NSM) Q(PSF) | dynamic pressure; $1/2\rho V^2$, N/m ² , psf |
| RN/L | RN/L | unit Reynolds number; per m, per ft |
| V | | velocity; m/sec, ft/sec |
| α | ALPHA | angle of attack, degrees |
| β | BETA | angle of sideslip, degrees |
| ψ | PSI | angle of yaw, degrees |
| ϕ | PHI | angle of roll, degrees |
| ρ | | mass density; kg/m ³ , slugs/ft ³ |
| <u>Reference & C.G. Definitions</u> | | |
| A _b | | base area; m ² , ft ² |
| b | BREF | wing span or reference span; m, ft |
| c.g. | | center of gravity |
| $\frac{l}{c}$ | LREF | reference length or wing mean aerodynamic chord; m, ft |
| S | SREF | wing area or reference area; m ² , ft ² |
| | MRF | moment reference point |
| | XMRF | moment reference point on X axis |
| | YMRF | moment reference point on Y axis |
| | ZMRF | moment reference point on Z axis |

SUBSCRIPTS

| | |
|----------|-------------------|
| b | base |
| l | local |
| s | static conditions |
| t | total conditions |
| ∞ | free stream |

NOMENCLATURE (Continued)

Body-Axis System

| <u>SYMBOL</u> | <u>PLOT SYMBOL</u> | <u>DEFINITION</u> |
|---------------|--------------------|---|
| C_N | CN | normal-force coefficient; $\frac{\text{normal force}}{qS}$ |
| C_A | CA | axial-force coefficient; $\frac{\text{axial force}}{qS}$ |
| C_Y | CY | side-force coefficient; $\frac{\text{side force}}{qS}$ |
| C_{A_B} | CAB | base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_B - p_\infty)/qS$ |
| C_{A_F} | CAF | forebody axial force coefficient, $C_A - C_{A_B}$ |
| C_m | CLM | pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$ |
| C_n | CYN | yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$ |
| C_l | CLL | rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$ |

Stability-Axis System

| | | |
|-----------|------|--|
| C_L | CL | lift coefficient; $\frac{\text{lift}}{qS}$ |
| C_D | CD | drag coefficient; $\frac{\text{drag}}{qS}$ |
| C_{D_b} | CDB | base-drag coefficient; $\frac{\text{base drag}}{qS}$ |
| C_{D_F} | CDF | forebody drag coefficient; $C_D - C_{D_b}$ |
| C_Y | CY | side-force coefficient; $\frac{\text{side force}}{qS}$ |
| C_m | CLM | pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$ |
| C_n | CLN | yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$ |
| C_l | CLL | rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$ |
| L/D | L/D | lift-to-drag ratio; C_L/C_D |
| L/D_F | L/DF | lift to forebody drag ratio; C_L/C_{D_F} |

NOMENCLATURE
Additions to Standard List

| <u>Symbol</u> | <u>Plot Symbol</u> | <u>Definition</u> |
|------------------------|--------------------|---|
| C_{p_i} | CPI | pressure coefficient at tap i |
| $C_{p_{s_j}}$ | CPSJ | static pressure coefficient at tap j, $(P_{s_j} - P_{s_\infty})/q_\infty$ |
| $C_{p_{T_i}}$ | CPTI | total pressure coefficient at tap i, $(P_{T_i} - P_{s_\infty})/q_\infty$ |
| M_{i_j} | MIJ | local Mach number obtained using Rayleigh-pitot equation with (P_{s_j}/P_{T_i}) |
| P_{s_j} | PSJ | local static pressure at tap j, psfa |
| P_{s_∞} | P | freestream static pressure, psfa |
| P_{T_i} | PTI | local total pressure at tap i, psfa |
| P_{T_∞} | PT | freestream total pressure, psfa |
| P_{T_i}/P_{T_∞} | PTI/PT | ratio of local to freestream total pressures at tap i |
| P_{s_j}/P_{s_∞} | PSJ/P | ratio of local to freestream static pressures at tap j |
| P_{T_i}/q_c | PTI/QC | ratio of local total pressure increment from freestream static to freestream compressible dynamic pressure, $(P_{T_i} - P_{s_\infty})/q_c$ |
| q_∞ | Q | freestream (as measured) dynamic pressure, psfa |
| q_c | QCOMP | freestream compressible dynamic pressure, psfa $P_{T_x} - P_{s_\infty}$ where $P_{T_x} = PT$ for $M \leq 1.0$ $P_{T_x} = P_{s_\infty} \left[\frac{6}{5} M^2 \right]^{7/2} \left[\frac{\delta}{7M^2 - 1} \right]^{5/2}$ for $M > 1.0$ |

NOMENCLATURE (Continued)

| <u>Symbol</u> | <u>Plot Symbol</u> | <u>Definition</u> |
|-----------------------|--------------------|--|
| q_{ij} | QIJ | local compressible dynamic pressure, $(P_{Ti} - P_{Sj})$, p _{sfa} |
| q_{ij}/q_c | QIJ/QC | ratio of local to freestream compressible dynamic pressure |
| $(\Delta P_T/q)_{ij}$ | DPTQIJ | local to freestream total pressure increment ratioed to local compressible dynamic pressure, $(P_{Ti} - P_{T\infty})/(P_{Ti} - P_{Sj})$, total pressure decrement |
| $(\Delta P_s/q)_{ij}$ | DPQIJ | local static pressure increment ratioed to local compressible dynamic pressure, $(P_{Sj} - P_{S\infty})/(P_{Ti} - P_{Sj})$, static pressure decrement |
| δ_a | AILRON | aileron deflection angle, degrees |
| δ_e | ELEVON | elevon deflection angle, degrees |
| δ_f | BDFLAP | bodyflap surface deflection angle, positive deflection trailing edge down, degrees |

Note: All calculations for rakes on datasets requiring P_{Sj} ; P_{Sj} was taken from a rake off dataset.

SUBSCRIPTS

| | | |
|---|---|--------------------------------------|
| i | I | local total pressure at the ith tap |
| j | J | local static pressure at the jth tap |

RAKES ON CONFIGURATION

| J | Static Pressure Tap Locations | Model Station X_0 |
|---|-------------------------------|---------------------|
| 1 | Fuselage Flush Left Side | 8.100 |
| 2 | Fuselage Flush Right Side | 8.100 |
| 3 | Fuselage Flush Left Side | 12.900 |
| 4 | Fuselage Flush Right Side | 12.900 |

NOMENCLATURE (Concluded)

RAKES ON CONFIGURATION
(Concluded)

| I | Total Pressure Tap Locations | Model Station X_0 |
|---|------------------------------|---------------------|
| 1 | Left Rake Outboard | 12.846 |
| 2 | Left Rake Middle | 12.873 |
| 3 | Left Rake Inboard | 12.900 |
| 4 | Right Rake Inboard | 12.900 |
| 5 | Right Rake Middle | 12.873 |
| 6 | Right Rake Outboard | 12.846 |

PROBES ON CONFIGURATION

| J | Static Pressure Locations | Model Station X_0 |
|-------|------------------------------------|---------------------|
| 1 ⇒ 4 | Same as the rakes on Configuration | |
| 5 | Nose Pitot/Static Probe | 0.809 |
| 6 | Left Wing Pitot/Static Probe | 35.025 |
| I | Total Pressure Tap Locations | |
| 6 | Left Wing Pitot/Static Probe | 35.025 |
| 7 | Nose Pitot/Static Probe | 0.809 |

Note: Left wing pitot/static probe was located along W L 9.160 and
B L 14.050

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OF POOR QUALITY**

CONFIGURATIONS INVESTIGATED

The 0.030-scale 45-0 model employed in this test was a representation of the Configuration 140A/B (modified) Space Shuttle Vehicle Orbiter. It was instrumented for measurement of static and total pressures in the region of the proposed Air Data Subsystem probes on the Orbiter forebody, and was provided with alternate nose and left wing-tip flight test probe installations. A wing-off configuration was also tested with and without the total-pressure forebody rakes at transonic conditions. During certain runs, tufts were attached on the right-hand forebody region for flow-visualization studies. Elevon and aileron deflections were variable, while the rudder and speedbrake were maintained at 0 deg. settings and the body-flap at -7.17 deg. See Table II.

Model nomenclature used for this test was as follows:

where: Orb = B₂₆ C₉ E₄₃ F₈ M₁₆ N₂₄ R₅ V₈ W₁₁₆ N₂₈

Component

| | |
|-----------------|--|
| B ₂₆ | Orbiter fuselage per Rockwell International lines: VL70000140A/B (model drawing SS-A01360) |
| C ₉ | Orbiter canopy per Rockwell International lines: VL70000140A/B (model drawing SS-A01360) |
| E ₄₃ | Orbiter full-span, unswept-hingeline 6"-gapped elevons per Rockwell International lines: VL70-000200 (model drawings SS-A1360) |
| F ₈ | Orbiter body flap per Rockwell International lines: VL70000200 (model drawing SS-A1360) |
| M ₁₆ | Orbiter OMS pods per Rockwell International lines: VL700002030A, VL70-008401 (model drawing SS-A1360) |
| N ₂₄ | Orbiter main propulsion system (MPS) nozzles: VL70000140A, VL70-005034 (model drawing SS-A01360) |

CONFIGURATIONS INVESTIGATED (Concluded)

- N₂₈ .. Orbiter OMS nozzles: VL70-000140A (model drawing SS-A01360)
- R₅ Orbiter rudder per Rockwell International lines: VL70000146A
(model drawing SS-A01360)
- V₈ Orbiter vertical tail per Rockwell lines: VL70-000146A (model
drawing SS-A01360)
- W₁₁₆ Orbiter wing per Rockwell International lines: VL70-000200
(model drawing SS-A01360)

See Table III for detailed information on model components.

TEST FACILITY DESCRIPTION

The Ames 11 x 11-Foot Transonic Wind Tunnel is a variable density, closed return, continuous flow type. This tunnel has an adjustable nozzle (two flexible walls) and a slotted test section to permit transonic testing over a Mach number range continuously variable from 0.4 to 1.4.

The Ames 8 x 7-Foot Supersonic Wind Tunnel is a closed-return, variable-density tunnel with a 8- by 7-foot rectangular test section. The nozzle has flexible side walls with fixed upper and lower surfaces. Mach number range is continuously variable from 2.45 to 3.5. Tunnel stagnation pressure can be varied from 0.3 to 2.0 atmospheres and Reynolds number per foot varies from 1.0×10^6 to 5.0×10^6 .

The Ames 9 x 7-Foot Supersonic Wind Tunnel is a variable density, continuous flow type with an adjustable nozzle to permit supersonic testing over a Mach number range continuously variable from 1.5 to 2.5. The nozzle is of the asymmetric, sliding-block type in which the variation of the test section Mach number is achieved by translating, in the stream-wise direction, the fixed-contour block that forms the floor of the nozzle.

DATA REDUCTION

Six-component balance data were reduced, using Ames standard data reduction techniques, to body-axis coefficient form. Angles of attack and sideslip were corrected for balance and sting deflections. Moments were reduced about the Orbiter moment reference center.

No base pressure corrections were applied to the data; however, two base pressure taps were monitored for future reference. Tufts and Schlieren photography were employed to determine local flow and shock-wave patterns, particularly in the transonic regime.

The following reference dimensions and constants were used to reduce the data to coefficient form.

Reference Dimensions and Constants

| <u>Symbol</u> | <u>Definition</u> | <u>Model Scale</u> | <u>Full Scale</u> |
|---------------|--------------------------------------|--------------------|-------------------|
| S | Wing reference area, ft ² | 2.421 | 2690.0 |
| \bar{c} | Wing reference MAC, in | 14.244 | 474.8 |
| b | Wing reference span, in | 28.100 | 936.68 |
| MRP | Moment reference point | | |
| | Fuselage station | 32.300 | 1076.88 |
| | Water plane | 11.250 | 375 |

Probe data were reduced to provide local Mach number, various pressure ratios, and coefficients as defined in the nomenclature section. Mach numbers ($M_{i,j}$) were calculated using the Rayleigh Pitot equation with the appropriate static ($P_{s,j}$) and total ($P_{T,j}$) pressures. Calculations for data sets containing data obtained with the rake installed utilize $P_{s,j}$ from an equivalent data set containing data obtained without the rake installed.

DISCUSSION OF DATA AND RESULTS

Force data were good in nearly all cases. A roll gauge failure between test segments B and C required recalibration measures in the reduction program, but no data were lost. Axial force data were possibly the least accurate during this test due to the interaction effects of the metric-to-nonmetric instrumentation leads running from the model to the supporting sting. However, axial-force corrections to the model angle-of-attack and/or angle-of-sideslip readings were considered insignificant.

Model fidelity to configuration lines was questioned as a result of asymmetrical pressure data in 0° sideslip cases with symmetrical deflection settings. Model dimensional checks will be carried out as necessary to determine compensations to test data.

REFERENCE

SD75-SH-0052, "Pretest Information for Test OA161 A, B and C of the 0.030-Scale Model 45-0 Space Shuttle Orbiter in the Ames Research Center Unitary Plan Wind Tunnels for Determining Local Flow Characteristics at the Air Data Probe Location", By D. E. Thornton and M. E. Nichols, February 14, 1975.

TABLE I

| TEST : OAT61 A.B. C | | DATE : March, 1975 | |
|---------------------|--------------------------------------|---------------------------------------|--|
| TEST CONDITIONS | | | |
| MACH NUMBER | REYNOLDS NUMBER (per unit length) | DYNAMIC PRESSURE (pounds/sq. inch) | STAGNATION TEMPERATURE (degrees Fahrenheit) |
| 0.30 | 4.25 x 10 ⁶ /ft | 1.69 | 116 |
| 0.60 | | 3.57 | |
| 0.70 | | 3.94 | |
| 0.80 | | 4.44 | |
| 0.85 | | 4.76 | |
| 0.90 | | 4.90 | |
| 0.95 | | 5.04 | |
| 0.98 | | 5.22 | |
| 1.05 | | 5.45 | |
| 1.10 | | 5.55 | |
| 1.15 | | 5.66 | |
| 1.20 | | 5.68 | |
| 1.30 | | 5.93 | |
| 1.40 | ↓ | 6.10 | ↓ |
| 1.55 | 3.00 x 10 ⁶ /ft | 4.47 | 85 |
| 1.75 | ↓ | 4.62 | ↓ |

BALANCE UTILIZED: MK XX 2.5"

| | | | |
|----|----------------------|-----------|---------------------------|
| | CAPACITY: | ACCURACY: | COEFFICIENT TOLERANCE: |
| NF | <u>3000 lbs</u> | _____ | _____ |
| SF | <u>1500 lbs</u> | _____ | _____ |
| AF | <u>600 lbs</u> | _____ | _____ |
| PM | <u>27,000 in-lbs</u> | _____ | _____ |
| RM | <u>4000 in-lbs</u> | _____ | _____ |
| YM | <u>10,500 in-lbs</u> | _____ | _____ |

COMMENTS:

TABLE II.

| TEST: 0A161 A,B,C | | DATE: 05/7/57 | | | | | | | | | | | | | | | | | | |
|---|--------------------|--|----|-------------|------------------|------|-----|-----|-----|------|-----|------|------|------|--|--|--|--|--|-----|
| DATA SET / RUN NUMBER COLLATION SUMMARY | | MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) | | | | | | | | | | | | | | | | | | |
| DATA SET IDENTIFIER | CONFIGURATION | SCHD. PARAMETERS/VALUES | | NO. OF RUNS | TEST RUN NUMBERS | | | | | | | | | | | | | | | |
| | | A | B | | 0.3 | 0.50 | 0.6 | 0.7 | 0.8 | 0.85 | 0.9 | 0.95 | 0.98 | 1.05 | | | | | | |
| RETOG1 | ORBITER-WING+RAKES | A | 0 | | | 2 | 3 | 4 | | | 5 | | | | | | | | | |
| 02 | ORBITER-WING | N/A | 0 | | | 282 | | | | | | | | | | | | | | 283 |
| 03 | ORBITER+RAKES | C | -5 | 0 | -6.5 | | | | | | | | | | | | | | | |
| 04 | | C | -2 | | | | | | | | | | | | | | | | | |
| 05 | | C | 0 | | | | | | | | | | | | | | | | | |
| 06 | | C | 2 | | | 21 | | | | | 18* | | | | | | | | | |
| 07 | | F | 5 | | | 22 | | | | | 19* | | | | | | | | | |
| 08 | ORBITER+TUFTS | F | -5 | 0 | -6.5 | 99 | | 100 | 110 | 111 | 120 | 121 | 130 | | | | | | | |
| 09 | | F | -2 | | | 98 | | 101 | 109 | 112 | 119 | 122 | 129 | | | | | | | |
| 10 | | G | 0 | | | 97 | | 102 | 108 | 113 | 118 | 123 | 128 | | | | | | | |
| 11 | | F | 2 | | | 96 | | 103 | 107 | 114 | 117 | 124 | 127 | | | | | | | |
| 12 | | F | 5 | | | 95 | | 104 | 106 | 115 | 116 | 125 | 126 | | | | | | | |
| 13 | ORBITER | C | -5 | 0 | -6.5 | 79 | 34 | 43 | 44 | 54 | 55 | 64 | 65 | | | | | | | |
| 14 | | C | -2 | | | 30 | 35 | 42 | 45 | 53 | 56 | 63 | 66 | | | | | | | |
| 15 | | C | 0 | | | 31 | 36 | 41 | 46 | 52 | 57 | 62 | 67 | | | | | | | |
| 16 | | C | 2 | | | 32 | 37 | 40 | 47 | 50 | 58 | 61 | 68 | | | | | | | |
| 17 | | C | 5 | | | 28 | 38 | 39 | 48 | 49 | 59 | 60 | 69 | | | | | | | |

R BETA... CL... CD... CLM... CM... CA... CB... CC... CD... CE... CF... CG... CH... CI... CJ... CK... CL... CM... CN... CO... CP... CQ... CR... CS... CT... CU... CV... CW... CX... CY... CZ...
 COEFFICIENTS
 X) A = 0, 4, 8, 12, 16, 20, 24
 X) B = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 0
 X) C = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 25, 0
 X) D = 0, 2, 4

TABLE II. - Continued

| TEST: CA/LI 7, 9, C | | DATE: POST TEST | | | | | | | | | | | | | | | | | | |
|---------------------------------------|-----------------------|--|---|-------------------|----|-------------|------------------|-----|-----|-----|------|-----|-----|-----|------|------|-----|------|-----|--|
| DATA SET/RUN NUMBER COLLATION SUMMARY | | MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) | | | | | | | | | | | | | | | | | | |
| DATA SET IDENTIFIER | CG. FIGURATION | SCHED. | | PARAMETERS/VALUES | | NO. OF RUNS | TEST RUN NUMBERS | | | | | | | | | | | | | |
| | | A | B | GE | SA | | GA | 6A | 6B | 1.1 | 1.15 | 1.2 | 1.3 | 1.4 | 1.55 | 1.75 | 2.0 | 2.25 | 2.5 | |
| 27001 | ORBITER - WING FRAMES | A | D | - | - | -6.5 | 7 | | 8 | 9 | | | | | | | | | | |
| 27002 | ORBITER - WING | A/C | O | - | - | -6.5 | 284 | 285 | 17* | | | | | | 305 | 306 | 315 | 316 | 441 | |
| 27003 | ORBITER + RANGES | A/B | S | 0 | 0 | -6.5 | | | | | | | | 304 | 307 | 314 | 317 | 442 | | |
| 27004 | | C | 2 | | | | | | | | | | | | | | | | | |
| 27005 | | C/A | O | | | | | | 16* | | | | | 303 | 308 | 313 | 318 | 443 | | |
| 27006 | | C/B | V | | | | | | 15* | | | | | 302 | 304 | 312 | 315 | 444 | | |
| 27007 | | C/A | S | | | | | | 14 | | | | | 301 | 310 | 311 | 320 | 445 | | |
| 27008 | ORBITER + THUETS | F | 5 | 0 | 0 | -6.5 | 131 | 138 | 141 | 150 | | | | | | | | | | |
| 27009 | | F | 2 | | | | 132 | 137 | 142 | 149 | | | | | | | | | | |
| 27010 | | G | O | | | | 133 | 136 | 143 | 148 | | | | | | | | | | |
| 27011 | | F | 2 | | | | 139 | 134 | 144 | 147 | | | | | | | | | | |
| 27012 | | F | 5 | | | | 140 | 135 | 105 | 146 | | | | | | | | | | |
| 27013 | ORBITER | C | 5 | 0 | 0 | -6.5 | 74 | 75 | 84 | 85 | | | | 321 | 330 | 331 | 349 | 416 | | |
| 27014 | | C | 2 | | | | 73 | 76 | 83 | 86 | | | | 322 | 329 | 332 | 348 | 417 | | |
| 27015 | | C | O | | | | 72 | 77 | 82 | 87 | | | | 323 | 328 | 333 | 347 | 418 | | |
| 27016 | | C/D | V | | | | 71 | 78 | 81 | 88 | | | | 324 | 327 | 334 | 346 | 419 | | |
| 27017 | | C | S | | | | 70 | 79 | 80 | 89 | | | | 325 | 326 | 335 | 345 | 420 | | |

COEFFICIENTS

A BETA... PS1/R, PS2/R, PS3/R, PS4/R, PS5/R, PS6/R, PS7/R, PS8/R, PS9/R, PS10/R, PS11/R, PS12/R, PS13/R, PS14/R, PS15/R, PS16/R, PS17/R, PS18/R, PS19/R, PS20/R, PS21/R, PS22/R, PS23/R, PS24/R, PS25/R

OR B SCHEDULES

X) A = 0.4, 8, 12, 16, 20, 24

X) B = 0.2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 0

X) C = 0.2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 25, 0

X) D = 0.2, 4

X) F = 0.4, 8, 10, 12, 14, 16, 20

X) G = 0.2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25

X) N = 0.4, 8, 12, 16, 20, 24, 0

A BETA... PS1/R, PS2/R, PS3/R, PS4/R, PS5/R, PS6/R, PS7/R, PS8/R, PS9/R, PS10/R, PS11/R, PS12/R, PS13/R, PS14/R, PS15/R, PS16/R, PS17/R, PS18/R, PS19/R, PS20/R, PS21/R, PS22/R, PS23/R, PS24/R, PS25/R

TABLE II. - Continued.

| REST: CARB A, B, C | | | | | | | | | | DATE: POST TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|------------------------|---------------------------------------|---|-------------|--|------|-----|-----|-----|-----------------|-----|-----|-----|-----|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|--|
| TEST: CARB A, B, C | | DATA SET/RUN NUMBER COLLATION SUMMARY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TEST IDENTIF CR | CONFIGURATION | SCHED. PARAMETERS/VALUES | | NO. OF RUNS | MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) | | | | | | | | | | | | | | | 75-76 | | | | | | | | | | | | | | | | | | |
| | | A | B | | 3-0 | 3-5 | 4-0 | 4-1 | 4-2 | 4-3 | 4-4 | 4-5 | 4-6 | 4-7 | 4-8 | 4-9 | 4-10 | 4-11 | 4-12 | | 4-13 | 4-14 | 4-15 | 4-16 | 4-17 | 4-18 | 4-19 | 4-20 | 4-21 | 4-22 | 4-23 | 4-24 | 4-25 | | | | | |
| 02 | ORBITER - WING + RAKES | A | 0 | - | - | -6.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03 | ORBITER - WING | N/A | 0 | - | - | -6.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04 | ORBITER + RAKES | C | 5 | 0 | 0 | -6.5 | | | | 440 | 431 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05 | | C | 2 | | | | | | | 439 | 432 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06 | | C | 0 | | | | | | | 438 | 433 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07 | | C | 2 | | | | | | | 437 | 434 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08 | | C | 5 | | | | | | | 436 | 435 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 09 | ORBITER + TUFTS | F | 5 | 0 | 0 | -6.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | F | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | G | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | F | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | F | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | ORBITER | C | 5 | 0 | 0 | -6.5 | | | | 425 | 426 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | C | 2 | | | | | | | 424 | 427 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | C | 0 | | | | | | | 423 | 428 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | C | 5 | | | | | | | 422 | 429 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | C | 5 | | | | | | | 421 | 430 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

7 13 19 25 31 37 43 49 55 61 67 75 76

BETA (PSE) P1/P1P12/P1P13/P1P14/P1P15/P1P16/P1P17/P1P18, ALPHA, J.O.

COEFFICIENTS

A) A = 0, 4, 8, 12, 16, 20, 24
 B) B = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 0
 C) C = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 25, 0
 D) D = 0, 2, 4

OR SCHEDULES

A) F = 0, 4, 8, 10, 11, 14, 16, 20
 B) G = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25
 C) N = 0, 4, 8, 12, 16, 20, 24, 0

B
DATA
SETS

TABLE II. - Continued

| TEST: 026113C | | DATE: POST TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---------------|--------------------------|---|-------------|-----|--|-----|------|------|-----|-----|------|-----|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| DATA SET RUN NUMBER COLLATION SUMMARY | | TEST RUN NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DATA SET CENTER | CONFIGURATION | SCHED. PARAMETERS/VALUES | | NO. OF RUNS | | MACH. NUMBERS FOR ALTERNATE INTERFERENT SCHEDULE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | A | B | SG | SP | SRF | 0.3 | 0.5G | 0.6 | 0.7 | 0.8 | 0.55 | 0.5 | 0.55 | 0.58 | 1.05 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | 026113C | H | 0 | 2.5 | 6.5 | | | | 160 | | | | | 161 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | H | 0 | | | | | | 157 | | | | | 162 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | H | 0 | | | | | | 158 | | | | | 163 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | | H | 0 | | | | | | 157 | | | | | 164 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | H | 5 | | | | | | 156 | | | | | 165 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | I | 5 | 0 | 5 | -6.5 | | | 201 | | | | | 200 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | I | 2 | | | | | | 202 | | | | | 199 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | I | 0 | | | | | | 203 | | | | | 198 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | | I | 2 | | | | | | 200* | | | | | 197 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | | I | 5 | | | | | | 205 | | | | | 196* | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | | I | 5 | 0 | 7.5 | -6.5 | | | 210 | | | | | 211 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | | I | 2 | | | | | | 209 | | | | | 212* | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | J | 0 | | | | | | 208 | | | | | 213 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | | I | 2 | | | | | | 207 | | | | | 214* | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | I | 5 | | | | | | 206 | | | | | 215* | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| COEFFICIENTS | 75 | 76 |
|---------------------|--|---------------------------|
| α OR β | K = 0, 2, 4, 8, 10, 12, 14, 16, 20, 0 | IDVAR (11) IDVAR (12) NDV |
| SCHEDULES | L = 0, 2, 4, 6, 8, 10, 12, 14, 16, 20, 0 | |
| | M = 0, 4, 6, 8, 10, 12, 14, 16, 20, 0 | |

TABLE II. - Continued

| TEST: OA161 A, B, C | | | | DATE: POST TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---------------|-------|----|-------------------|-----|-------------|--|------|------|------|-----|------------------|------|------|-----|------|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| DATA SET IDENTIFIER | CONFIGURATION | SCHD. | | PARAMETERS/VALUES | | NO. OF RUNS | MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) | | | | | TEST RUN NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | α | β | ε | SA | | SB | 1.1 | 1.15 | 1.2 | 1.3 | 1.4 | 1.55 | 1.75 | 2.0 | 2.25 | 2.5 | | | | | | | | | | | | | | | | | | | | | | |
| RET 018 | ORBITER | 1.0 | -5 | 0 | 2.5 | -6.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | 1.0 | -2 | | | | | 170* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | 1.0 | 0 | | | | | 169* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | | 1.0 | 2 | | | | | 168* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | 1.0 | 5 | | | | | 167* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | 1.0 | -5 | 0 | 5 | -6.5 | | | | 181 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | 1.0 | -2 | | | | | | | 187 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | 1.0 | 0 | | | | | | | 188* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | | 1.0 | 2 | | | | | | | 187 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | | 1.0 | 5 | | | | | | | 186 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | | 1.0 | -5 | 0 | 7.5 | -6.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | | 1.0 | -2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | J | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | | I | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | I | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

COEFFICIENTS

α) H = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 25
 α) I = 0, 2, 4, 6, 8, 10, 12, 14, 16, 20, 0
 α) J = 0, 4, 6, 8, 10, 12, 14, 16, 20, 24, 0

IDVAR (1) IDVAR (2) IDVAR (3) IDV

ORIGINAL PAGE 15
POOR QUALITY

TABLE II. - Continued

| TEST: PA161 A, 3, C | | DATA SET/RUN NUMBER COLLATION SUMMARY | | | | | | DATE: <u>POST TEST</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----------------|---------------------------------------|---|-------------------|-------------|--|-----|------------------------|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| DATA SET IDENTIFIER | CON-FIGURATION | SCHD. | | PARAMETERS/VALUES | NO. OF RUNS | MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | A | B | | | 30 | 35 | 39 | 43 | 47 | 51 | 55 | 59 | 63 | 67 | 71 | 75 | 79 | | | | | | | | | | | | | | | | | | | | |
| 0908 | ORBITER | 1 | 2 | 0 | 0 | 2.5 | 6.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

COEFFICIENTS
 H = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 25
 I = 0, 4, 8, 10, 12, 14, 16, 20, 0
 J = 0, 4, 6, 8, 10, 12, 14, 16, 20, 24, 0

TABLE II. - Continued

| TEST: 09161A.S.C | | DATE: POST 75T | | | | | | | | | | | | | | | | | | |
|---------------------------------------|------------------|--|----|-------------------|----|-------------|------------------|-----|------|-----|-----|-----|------|-----|------|------|------|--|--|-----|
| DATA SET/RUN NUMBER COLLATION SUMMARY | | MACH NUMBERS I OR ALTERNATE INDEPENDENT VARIABLE | | | | | | | | | | | | | | | | | | |
| DATA SET IDENTIFIER | CONFIGURATION | SCHD. | | PARAMETERS/VALUES | | NO. OF RUNS | TEST RUN NUMBERS | | | | | | | | | | | | | |
| | | α | β | SE | SA | | SoF | 0.3 | 0.50 | 0.6 | 0.7 | 0.8 | 0.85 | 0.9 | 0.95 | 0.98 | 1.05 | | | |
| RET033 | ORBITER | I | -5 | 0 | 10 | -6.5 | | | 252 | | | | | | 251 | | | | | 241 |
| 34 | | I | -2 | | | | | | 253 | | | | | | 250 | | | | | 242 |
| 35 | | J | 0 | | | | | | 254 | | | | | | 249 | | | | | 243 |
| 36 | | I | -2 | | | | | | 255 | | | | | | 247 | | | | | 244 |
| 37 | | I | -5 | | | | | | 256 | | | | | | 246 | | | | | 245 |
| 38 | ORBITER + PROBES | C | -8 | 0 | 0 | -6.5 | | 263 | 764 | | | | | | | | | | | |
| 39 | | C | -5 | | | | | 262 | 265 | | | | | | | | | | | |
| 40 | | C | -2 | | | | | 261 | 266 | | | | | | | | | | | |
| 41 | | C | 0 | | | | | 260 | 267 | | | | | | | | | | | |
| 42 | | C | 2 | | | | | 259 | 271 | | | | | | | | | | | |
| 43 | | C | 5 | | | | | 258 | 269 | | | | | | | | | | | |
| 44 | | C | 8 | | | | | 257 | 270 | | | | | | | | | | | |
| 45 | | C | -5 | 15 | 0 | -6.5 | | 276 | 277 | | | | | | | | | | | |
| 46 | | C | -2 | | | | | 275 | 278 | | | | | | | | | | | |
| 47 | | C | 0 | | | | | 274 | 279 | | | | | | | | | | | |
| 48 | | C | 2 | | | | | 273 | 280 | | | | | | | | | | | |
| 49 | | C | 5 | | | | | 272 | 281 | | | | | | | | | | | |

α OR β: C = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 25, 0
 SCHEDULES: I = 0, 4, 8, 10, 12, 14, 16, 20, 0

NO. OF RUNS: J = 0, 4, 6, 8, 10, 12, 14, 16, 20, 24, 0

TABLE II. - Continued

| TEST: CA-161 A,B,C | | DATA SET/RUN NUMBER COLLATION SUMMARY | | | | | | | | | | | | DATE: POST TEST | | | | | |
|---------------------|----------------|---------------------------------------|----|----|------|-------------------|----|----|----|-------------|---|------|-----|-----------------|------------------|------|------|-----|------|
| DATA SET IDENTIFIER | CONFIGURATION | SCHD. | | | | PARAMETERS/VALUES | | | | NO. OF RUNS | MACH NUMBERS 1 OR ALTERNATE INDEPENDENT VARIABLES | | | | TEST RUN NUMBERS | | | | |
| | | A | B | C | D | SA | SB | SC | SD | | 7-1 | 1-15 | 1-2 | 1-3 | 1-4 | 1-55 | 1-75 | 2-0 | 2-25 |
| 43 | ORBITER | I-5 | 0 | 10 | -6.5 | | | | | 240 | | | | | | | | | |
| 34 | | I-2 | | | | | | | | 249 | | | | | 230 | | | | |
| 35 | | J-0 | | | | | | | | 238 | | | | | 229 | | | | |
| 36 | | I-2 | | | | | | | | 237 | | | | | 228 | | | | |
| 37 | | I-5 | | | | | | | | 236 | | | | | 227 | | | | |
| 38 | ORBITER PROBES | C-8 | 0 | 0 | -6.5 | | | | | | | | | | 226 | | | | |
| 39 | | C-5 | | | | | | | | | | | | | | | | | |
| 40 | | C-2 | | | | | | | | | | | | | | | | | |
| 41 | | C-0 | | | | | | | | | | | | | | | | | |
| 42 | | C-2 | | | | | | | | | | | | | | | | | |
| 43 | | C-5 | | | | | | | | | | | | | | | | | |
| 44 | | C-8 | | | | | | | | | | | | | | | | | |
| 45 | | C-5 | 15 | 0 | -6.5 | | | | | | | | | | | | | | |
| 46 | | C-2 | | | | | | | | | | | | | | | | | |
| 47 | | C-0 | | | | | | | | | | | | | | | | | |
| 48 | | C-2 | | | | | | | | | | | | | | | | | |
| 49 | | C-5 | | | | | | | | | | | | | | | | | |

A OR B SCHEDULES

COEFFICIENTS

K/C = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 25, 0

K/I = 0, 4, 6, 8, 10, 12, 14, 16, 20, 0

IOVAR (1) : IOVAR (2) : IOVAR (3) : IOVAR (4) : IOVAR (5) : IOVAR (6) : IOVAR (7) : IOVAR (8) : IOVAR (9) : IOVAR (10) : IOVAR (11) : IOVAR (12) : IOVAR (13) : IOVAR (14) : IOVAR (15) : IOVAR (16) : IOVAR (17) : IOVAR (18) : IOVAR (19) : IOVAR (20) : IOVAR (21) : IOVAR (22) : IOVAR (23) : IOVAR (24) : IOVAR (25) : IOVAR (26) : IOVAR (27) : IOVAR (28) : IOVAR (29) : IOVAR (30) : IOVAR (31) : IOVAR (32) : IOVAR (33) : IOVAR (34) : IOVAR (35) : IOVAR (36) : IOVAR (37) : IOVAR (38) : IOVAR (39) : IOVAR (40) : IOVAR (41) : IOVAR (42) : IOVAR (43) : IOVAR (44) : IOVAR (45) : IOVAR (46) : IOVAR (47) : IOVAR (48) : IOVAR (49) : IOVAR (50) : IOVAR (51) : IOVAR (52) : IOVAR (53) : IOVAR (54) : IOVAR (55) : IOVAR (56) : IOVAR (57) : IOVAR (58) : IOVAR (59) : IOVAR (60) : IOVAR (61) : IOVAR (62) : IOVAR (63) : IOVAR (64) : IOVAR (65) : IOVAR (66) : IOVAR (67) : IOVAR (68) : IOVAR (69) : IOVAR (70) : IOVAR (71) : IOVAR (72) : IOVAR (73) : IOVAR (74) : IOVAR (75) : IOVAR (76)

TABLE II. - Continued

| TEST: CA161 A, B, C | | DATA SET RUN NUMBER COLLECTION SUMMARY | | | | | | | | | | | | DATE: POST TEST | | | | |
|---------------------|-----------------|--|----|-------------------|----|------|-------------|--|------|-----|-----|-----|------|------------------|-----|------|-----|-----|
| DATA SET IDENTIFIER | CONFIGURATION | SCHD. | | PARAMETERS/VALUES | | | NO. OF RUNS | MACA NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) | | | | | | TEST RUN NUMBERS | | | | |
| | | A | B | SE | SA | SBE | | 1.1 | 1.15 | 1.2 | 1.3 | 1.4 | 1.55 | 1.75 | 2.0 | 2.25 | 2.5 | |
| REF 050 | ORBITER + RARES | C | -5 | 0 | 0 | -6.5 | | | | | | | | | | | | 411 |
| 51 | | C | -2 | | | | | | | | | | | | | | | 412 |
| 52 | | C | 0 | | | | | | | | | | | | | | | 413 |
| 53 | | C | 2 | | | | | | | | | | | | | | | 414 |
| 54 | | C | 5 | | | | | | | | | | | | | | | 415 |
| 55 | ORBITER | C | -5 | 0 | 0 | -6.5 | | | | | | | | | 337 | | | 340 |
| 56 | | C | -2 | | | | | | | | | | | | 338 | | | 341 |
| 57 | | C | 0 | | | | | | | | | | | | | | | 342 |
| 58 | | C | 2 | | | | | | | | | | | | | | | 343 |
| 59 | | C | -5 | | | | | | | | | | | | 339 | | | 344 |
| | | | | | | | | | | | | | | | | | | 336 |

COEFFICIENTS
 C = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28
 E = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28

TABLE II. - Concluded

| TEST: OAI61A.B.C | | DATA SET/RUN NUMBER COLLATION SUMMARY | | | | | | | | | | DATE: <u>FIRST TEST</u> | | | | | | | | | | | | | | | | | | | |
|---------------------|------------------|---------------------------------------|--------------|----|----|-------------|--|-----|-----|-----|-----|-------------------------|------------------|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|
| DATA SBT IDENTIFIER | CONFIGURATION | SCHD. PARAMETERS/VALUES | | | | NO. OF RUNS | MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) | | | | | | TEST RUN NUMBERS | | | | | | | | | | | | | | | | | | |
| | | α | β | SE | SA | | SPC | 310 | 401 | 402 | 403 | 404 | 405 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | | | | | | | | |
| R07050 | EXHAUST + INLETS | C | 5 | 0 | 0 | -6.5 | 410 | 401 | | | | | | | | | | | | | | | | | | | | | | | |
| S1 | | C | 2 | | | | 409 | 402 | | | | | | | | | | | | | | | | | | | | | | | |
| S2 | | C | 0 | | | | 408 | 403 | | | | | | | | | | | | | | | | | | | | | | | |
| S3 | | C | 2 | | | | 407 | 404 | | | | | | | | | | | | | | | | | | | | | | | |
| S4 | | C | 5 | | | | 406 | 405 | | | | | | | | | | | | | | | | | | | | | | | |
| S5 | ORBITER | C | 5 | 0 | 0 | -6.5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| S6 | | C | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S7 | | C | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S8 | | C | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S9 | | C | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

COEFFICIENTS
 SCHEDULES
 α OR β
 α : C = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40
 β : E = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40
 IDVAR (1) IDVAR (2) NDV
 X/H = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26

TABLE III MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B26

GENERAL DESCRIPTION : Continuation 140A/B Orbiter fuselage.

NOTE: B₂₆ is identical to B₂₄, except underside of fuselage has been
repaired to accept W₁₁₂.

MODEL SCALE: 0.030

DRAWING NUMBER : VL70-000143B -000200 -000205 -004089 -000145,
VL70-000140A -000140B

| DIMENSIONS : | FULL SCALE | MODEL SCALE |
|--|-----------------------------|-----------------------------|
| Length (OML: Fwd. Sta. $X_0=235$) In. | <u>1293.3</u> | <u>38.799</u> |
| Length (IML: Fwd. Sta. $X_0=238$) In. | <u>1290.3</u> | <u>38.709</u> |
| Max Width (@ $X_0 = 1528.3$) In. | <u>264.0</u> | <u>7.920</u> |
| Max Depth (@ $X_0 = 1564$) In. | <u>250.00</u> | <u>7.500</u> |
| Fineness Ratio | <u>0.264</u> | <u>0.264</u> |
| Area - Ft ² | <u> </u> | <u> </u> |
| Max. Cross-Sectional | <u>740.88</u> | <u>0.3068</u> |
| Planform | <u> </u> | <u> </u> |
| Wetted | <u> </u> | <u> </u> |
| Base | <u> </u> | <u> </u> |

TABLE III (Cont'd)

MODEL COMPONENT: CANOPY - C₉

GENERAL DESCRIPTION: Configuration 3A. Canopy used with fuselage

B26.

MODEL SCALE: 0.030.

DRAWING NUMBER: VL70-000143A

| <u>DIMENSION:</u> | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--------------------------------------|-----------------------------|-----------------------------|
| Length (X_0 - 434.643 to 578) In. | <u>143.357</u> | <u>4.301</u> |
| Max Width (@ $X_0 = 513.127$). In. | <u>152.412</u> | <u>4.572</u> |
| Max Depth (@ $X_0 = 185.0$), In. | <u>25.000</u> | <u>0.750</u> |
| Fineness Ratio | <u> </u> | <u> </u> |
| Area | <u> </u> | <u> </u> |
| Max Cross-Sectional | <u> </u> | <u> </u> |
| Platform | <u> </u> | <u> </u> |
| Wetted | <u> </u> | <u> </u> |
| Base | <u> </u> | <u> </u> |

TABLE III (Cont'd)

MODEL COMPONENT: SLOTTED ELEVON (6-INCH GAP) - E_{4,2}

GENERAL DESCRIPTION: Configuration 140A 'B Orbiter elevon.

NOTE: E_{4,2} is a slotted version of E_{4,1}. Data are for one side.

MODEL SCALE: 0.030

DRAWING NUMBER: VI70-000200 -006089. -006092

| <u>DIMENSIONS:</u> | <u>FULL-SCALE</u> | <u>MODEL SCALE</u> |
|---|-------------------|--------------------|
| Area - Ft. ² | <u>210.00</u> | <u>0.189</u> |
| Span (equivalent), In. | <u>349.2</u> | <u>10.476</u> |
| Inb'd equivalent chord, In. | <u>118.004</u> | <u>3.540</u> |
| Outb'd equivalent chord, In. | <u>55.192</u> | <u>1.656</u> |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | <u>0.2096</u> | <u>0.2096</u> |
| At Outb'd equiv. chord | <u>0.4004</u> | <u>0.4004</u> |
| Sweep Back Angles, degrees | | |
| Leading Edge | <u>0.00</u> | <u>0.00</u> |
| Tailing Edge | <u>-10.056</u> | <u>-10.056</u> |
| Hingeline | <u>0.00</u> | <u>0.00</u> |
| (Product of Area & \bar{c}) | | |
| Area Moment (Normal to hingeline), Ft. ³ | <u>1587.25</u> | <u>0.043</u> |
| Mean Aerodynamic Chord, In. | <u>90.7</u> | <u>2.721</u> |

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OF POOR QUALITY

TABLE III (Cont'd)

MODEL COMPONENT: BODY FLAP - F_B

GENERAL DESCRIPTION: Confirmation 140A 'B' orbiter body flap.

Hingeline located at X₀ = 1524.3. Z₀ = 284.3

MODEL SCALE: 0.030.

DRAWING NUMBER: VL70-0001A, -0001A5

| <u>DIMENSION:</u> | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--|-------------------|--------------------|
| Length (X ₀ = 1520 to X ₀ = 1613). In. | 93.00 | 2.79 |
| Max Width (In.) | 262.00 | 7.86 |
| Max Depth (@ X = 1520) In.. | 23.00 | 0.69 |
| Fineness Ratio | | |
| Area - Ft ² | | |
| Max Cross-Sectional | | |
| Platform | 150.525 | .1355 |
| Wetted | | |
| Base | 11.847 | .0377 |

TABLE III (Cont'd)

MODEL COMPONENT: OMS POD - M16

GENERAL DESCRIPTION: Configuration 140C orbiter OMS pod - short pod.

MODEL SCALE: 0.030

DRAWING NUMBER VI70-008401, -008410

| <u>DIMENSION:</u> | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--|-------------------|--------------------|
| Length (OMS Fwd Sta. $X_0 = 1310.5$). In. | <u>258.50</u> | <u>7.755</u> |
| Max Width (@ $X_0 = 1511$). In. | <u>136.8</u> | <u>4.104</u> |
| Max Depth (@ $X_0 = 1511$). In. | <u>74.70</u> | <u>2.241</u> |
| Fineness Ratio | <u>2.484</u> | <u>2.484</u> |
| Area - Ft ² | | |
| Max Cross-Sectional | <u>58.864</u> | <u>0.053</u> |
| Platform | <u> </u> | <u> </u> |
| Wetted | <u> </u> | <u> </u> |
| Base | <u> </u> | <u> </u> |

TABLE III (Cont'd)

MODEL COMPONENT: MPJ NOZZLES - N₂

GENERAL DESCRIPTION: Configuration 1/0A 'B Orbiter MPS Nozzles

MODEL SCALE: 0.030

DRAWING NUMBER: VL70-005030A, -000140A

| DIMENSIONS: | FULL SCALE | MODEL SCALE |
|------------------------------|-------------------|-------------------|
| MACH NO. | | |
| Length - In. | | |
| Gimbal Point to Exit Plane | <u>157.0</u> | <u>4.71</u> |
| Throat to Exit Plane | <u>99.2</u> | <u>2.976</u> |
| Diameter - In. | | |
| Exit | <u>91.00</u> | <u>2.73</u> |
| Throat | <u> </u> | <u> </u> |
| Inlet | <u> </u> | <u> </u> |
| Area - ft ² | | |
| Exit | <u>45.17</u> | <u>0.0407</u> |
| Throat | <u> </u> | <u> </u> |
| Gimbal Point (Station) - In. | | |
| Upper Nozzle | | |
| X | <u>1445.</u> | <u>43.35</u> |
| Y | <u>0</u> | <u>0</u> |
| Z | <u>443.00</u> | <u>13.29</u> |
| Lower Nozzles | | |
| X | <u>1468.17</u> | <u>44.045</u> |
| Y | <u>± 53.00</u> | <u>± 1.59</u> |
| Z | <u>342.64</u> | <u>10.279</u> |
| Null Position - Deg. | | |
| Upper Nozzle | | |
| Pitch | <u>16</u> | <u>16</u> |
| Yaw | <u>0</u> | <u>0</u> |
| Lower Nozzle | | |
| Pitch | <u>10</u> | <u>10</u> |
| Yaw | <u>3.5</u> | <u>3.5</u> |

TABLE III (Cont'd)

MODEL COMPONENT: CMS NOZZLES - N28

GENERAL DESCRIPTION: Configuration 140A 'B Orbiter OMS Nozzles.

MODEL SCALE: 0.030

DRAWING NUMBER: V170-000140A (Location)

| DIMENSIONS: | FULL SCALE | MODEL SCALE |
|--------------------------------|------------|-------------|
| MACH NO. | | |
| Length - In. | | |
| Gimbal Point to Exit Plane | | |
| Throat to Exit Plane | | |
| Diameter - In. | | |
| Exit | | |
| Throat | | |
| Inlet | | |
| Area - ft ² | | |
| Exit | | |
| Throat | | |
| Gimbal Point (Station) - In. | | |
| Left Upper Nozzle | | |
| X ₀ | 1518.0 | 45.54 |
| Y ₀ | 88.0 | 2.65 |
| Z ₀ | 492.0 | 14.76 |
| Right Upper Nozzles | | |
| X ₀ | 1518.0 | 45.54 |
| Y ₀ | 88.0 | 2.64 |
| Z ₀ | 492.0 | 14.76 |
| Null Position - Deg. | | |
| Left Upper Nozzle | | |
| Pitch | 15° 49' | 15° 49' |
| Yaw | 12° 17' | 12° 17' |
| Right Upper Nozzle | | |
| Pitch | 15° 49' | 15° 49' |
| Yaw | 12° 17' | 12° 17' |

TABLE III (Cont'd)

MODEL COMPONENT: RUDDER - R₂

GENERAL DESCRIPTION: Configuration 140C orbiter rudder (identical to
Configuration 140A/B rudder).

MODEL SCALE: 0.030

DRAWING NUMBER: VL70-000146B. --000095

| <u>DIMENSIONS:</u> | <u>FULL-SCALE</u> | <u>MODEL SCALE</u> |
|---|-------------------|--------------------|
| Area - Ft ² | <u>100.15</u> | <u>0.090</u> |
| Span (equivalent), In. | <u>201.00</u> | <u>6.030</u> |
| Inb'd equivalent chord, In. | <u>91.985</u> | <u>2.748</u> |
| Outb'd equivalent chord, In. | <u>50.831</u> | <u>1.525</u> |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | <u>0.400</u> | <u>0.400</u> |
| At Outb'd equiv. chord | <u>0.400</u> | <u>0.400</u> |
| Sweep Back Angles, degrees | | |
| Leading Edge | <u>34.83</u> | <u>34.83</u> |
| Tailing Edge | <u>26.25</u> | <u>26.25</u> |
| Hingeline | <u>34.83</u> | <u>34.83</u> |
| Area Moment (Normal to hingeline) Ft ³ (Product of area & \bar{c}) | <u>610.92</u> | <u>0.0165</u> |
| Mean Aerodynamic Chord, In. | <u>73.2</u> | <u>2.196</u> |

TABLE III (Cont'd)

MODEL COMPONENT: VERTICAL - Vg

GENERAL DESCRIPTION: Configuration 1/0C orbiter vertical tail

(Identical to configuration 1/0A 'B vertical tail).

MODEL SCALE: 0.030

DRAWING NUMBER: VL70-0001/0C, -0001/6B

DIMENSIONS:

FULL SCALE

MODEL SCALE

TOTAL DATA

Area (Theo) - Ft²

Planform

413.253

0.372

Span (Theo) - In.

315.72

9.472

Aspect Ratio

1.675

1.675

Rate of Taper

0.507

0.507

Taper Ratio

0.404

0.404

Sweep-Back Angles, Degrees.

Leading Edge

45.000

45.000

Trailing Edge

26.25

26.25

0.25 Element Line

41.13

41.13

Chords:

Root (Theo) WP

268.50

8.055

Tip (Theo) WP

108.47

3.254

MAC

199.81

5.994

Fus. Sta. of .25 MAC

1463.35

43.901

W.P. of .25 MAC

635.92

19.066

B.L. of .25 MAC

0.0

0.0

Airfoil Section

Leading Wedge angle - Deg.

10.00

10.00

Trailing Wedge Angle - Deg.

14.92

14.92

Leading Edge Radius

3.00

0.060

Void Area

13.17

0.0019

Blanketed Area

TABLE III (Con'd)

MODEL COMPONENT: WING-W₁₁₄

GENERAL DESCRIPTION: Configuration 4

NOTE: Identical to W₁₁₁, except airfoil thickness. Dihedral angle is
along trailing edge of wing.

MODEL SCALE: 0.030

TEST NO.

DWG. NO. VL70-0001A, -000200

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

| | FULL-SCALE | MODEL SCALE |
|----------------------------|------------|-------------|
| Area (Theo.) ft^2 | | |
| Planform | 2690.00 | 2.421 |
| Span (Theo) in. | 936.68 | 28.10 |
| Aspect Ratio | 2.265 | 2.265 |
| Rate of Taper | 1.177 | 1.177 |
| Taper Ratio | 0.200 | 0.200 |
| Dihedral Angle, degrees | 3.500 | 3.500 |
| Incidence Angle, degrees | 0.500 | 0.500 |
| Aerodynamic Twist, degrees | 3.000 | 3.000 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 45.000 | 45.000 |
| Trailing Edge | 10.056 | 10.056 |
| 0.25 Element Line | 35.209 | 35.209 |
| Chords: | | |
| Root (Theo) B.P.O.O. | 689.81 | 20.627 |
| Tip, (Theo) B.P. | 137.85 | 4.136 |
| MAC | 474.81 | 14.244 |
| Fus. Sta. of .25 MAC | 1136.81 | 34.105 |
| W.P. of .25 MAC | 290.58 | 8.717 |
| B.L. of .25 MAC | 182.13 | 5.464 |

EXPOSED DATA

| | FULL-SCALE | MODEL SCALE |
|--|------------|-------------|
| Area (Theo) ft^2 | 1751.90 | 1.576 |
| Span, (Theo) in. BP108 | 720.68 | 21.620 |
| Aspect Ratio | 2.059 | 2.059 |
| Taper Ratio | 0.215 | 0.215 |
| Chords | | |
| Root BP108 | 562.09 | 16.863 |
| Tip 1.00 $\frac{b}{2}$ | 137.85 | 4.136 |
| MAC | 392.81 | 11.785 |
| Fus. Sta. of .25 MAC | 1185.98 | 35.579 |
| W.P. of .25 MAC | 294.30 | 8.829 |
| B.L. of .25 MAC | 251.72 | 7.553 |
| Airfoil Section (Rockwell Mod NASA) XXXX-64 | | |
| Root $\frac{b}{2}$ | 0.113 | 0.113 |
| Tip $\frac{b}{2}$ | 0.120 | 0.120 |

Data for (1) of (2) Sides

| | FULL-SCALE | MODEL SCALE |
|---|------------|-------------|
| Leading Edge Cuff ft^2 | 113.18 | 0.347 |
| Planform Area ft^2 | 500.00 | 1.576 |
| Leading Edge Intersects Fus M. L. @ Sta | 1024.00 | 31.412 |
| Leading Edge Intersects Wing @ Sta | 1024.00 | 31.412 |

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OF POOR QUALITY

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

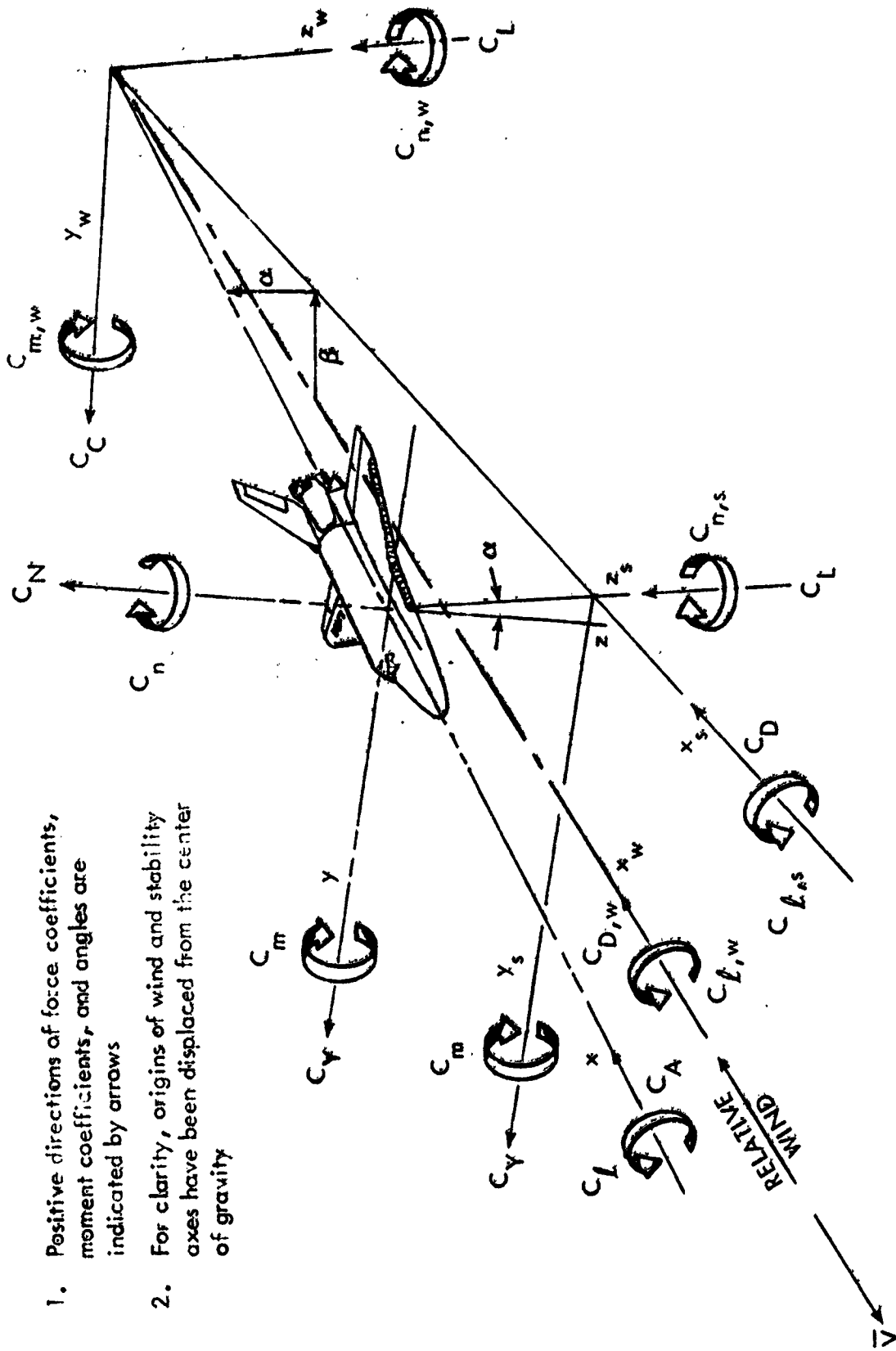
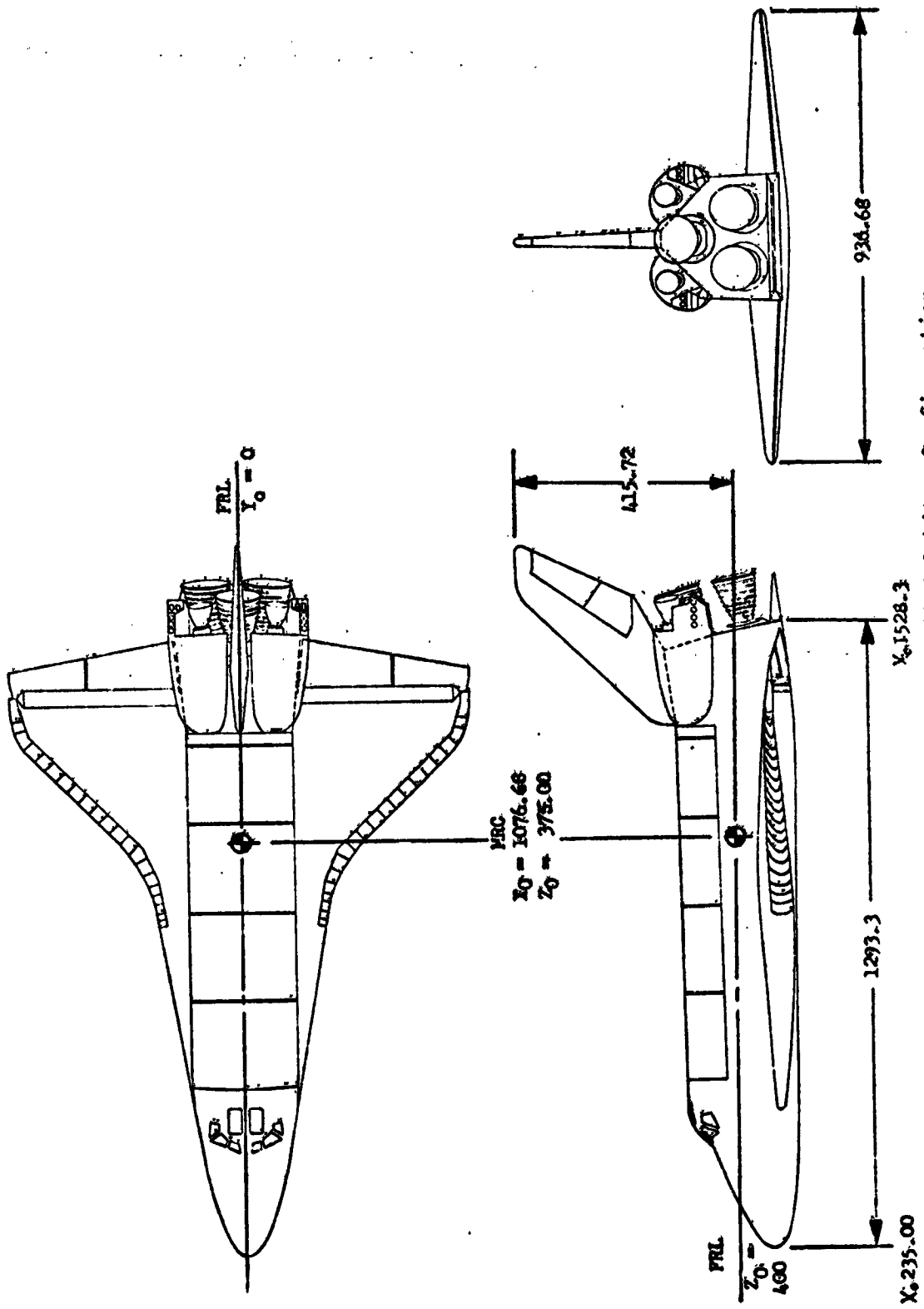
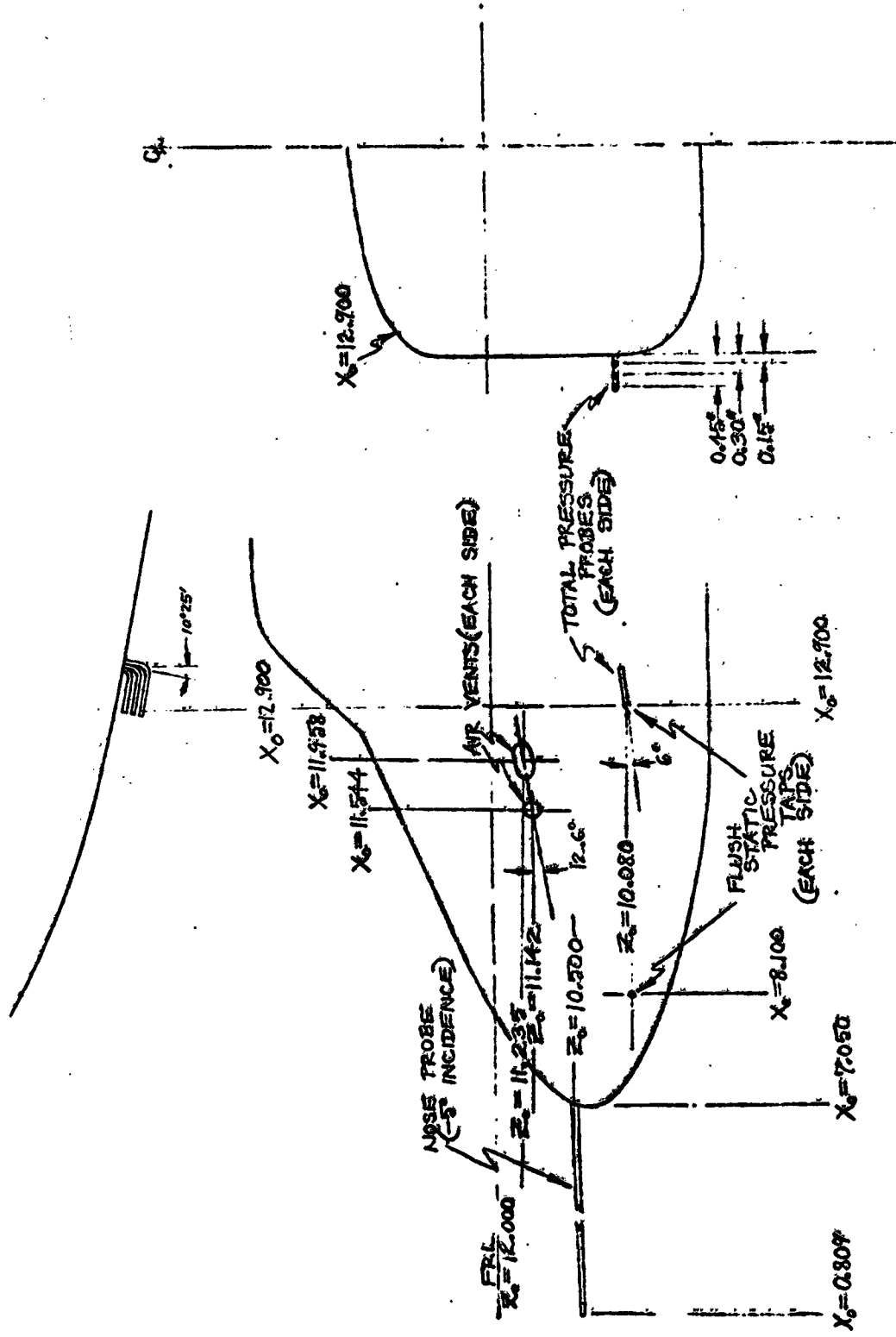


Figure 1. - Axis systems



a. Three-View of Modified Orbiter Configuration

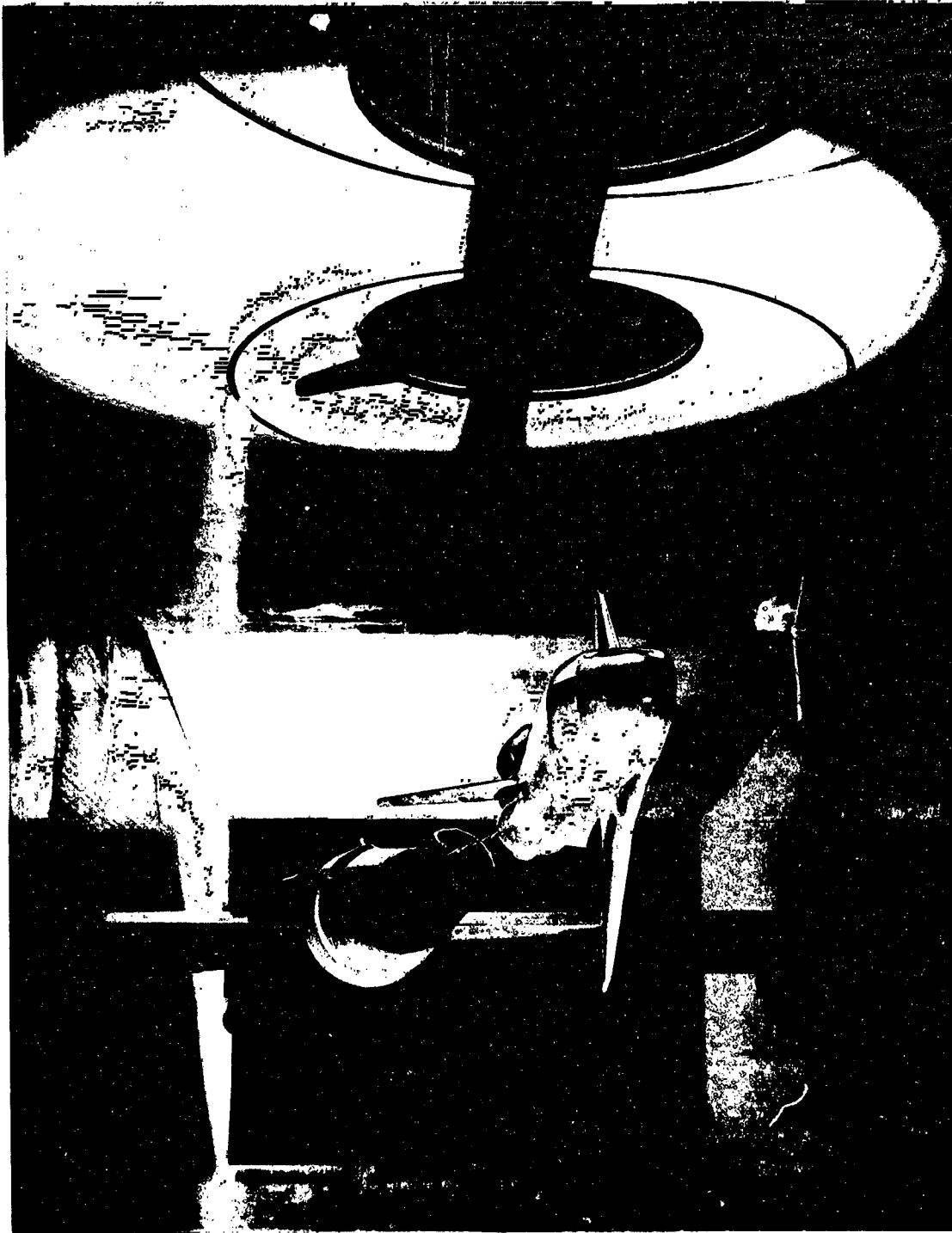
Figure 2. - Model sketches.



b. Pitot/Static Instrumentation for Model

Figure 2. - Concluded.

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a. Three-Quarter Front View of Model Mounted Upright in the 8 x 7 Foot Tunnel

Figure 3. - Model Photographs.

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b. Rear View of Model Mounted Sideways in the 8 x 7 Foot Tunnel

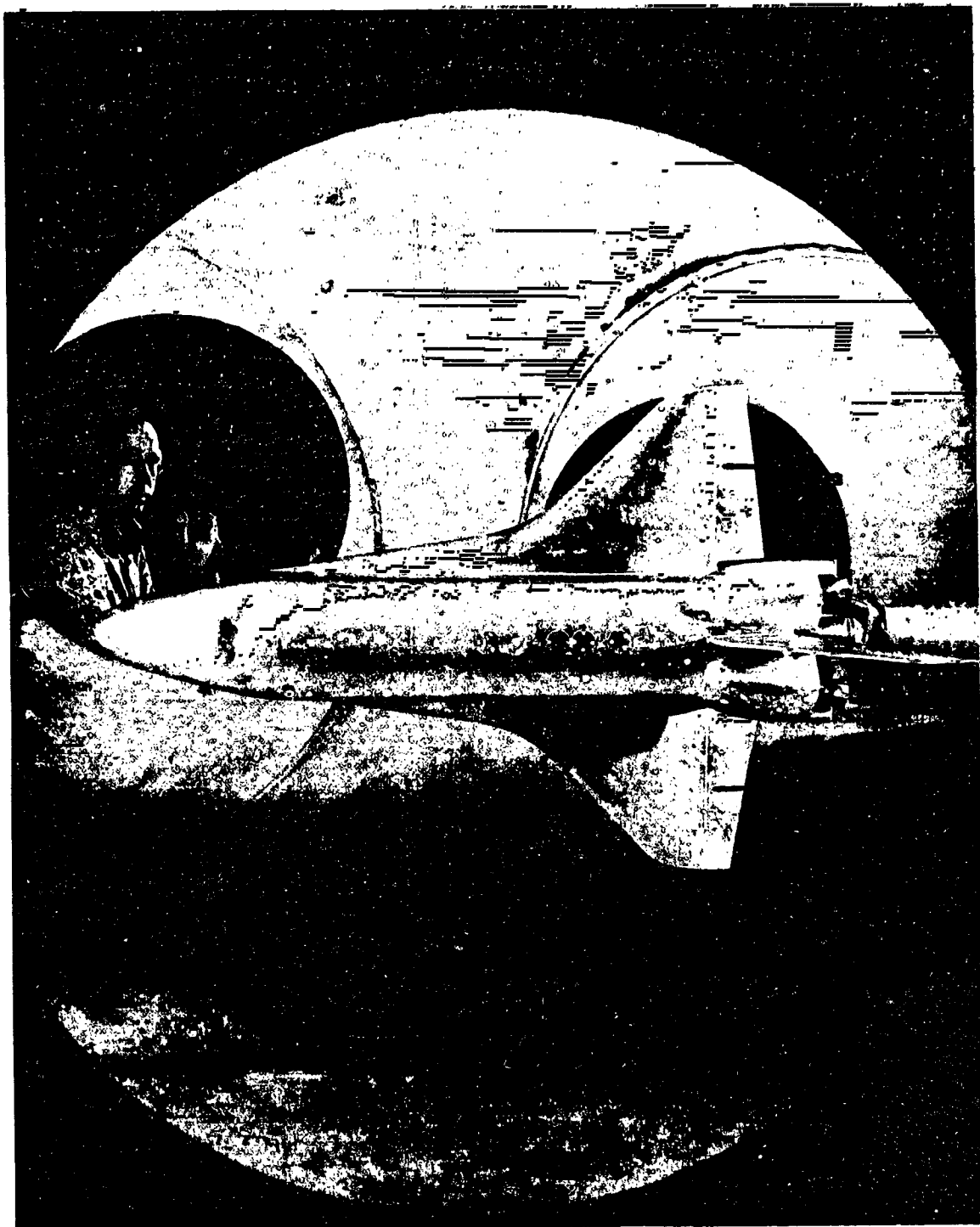
Figure 3. - Continued.



c. Front View of Model Mounted Sideways in the 9 x 7 Foot Tunnel

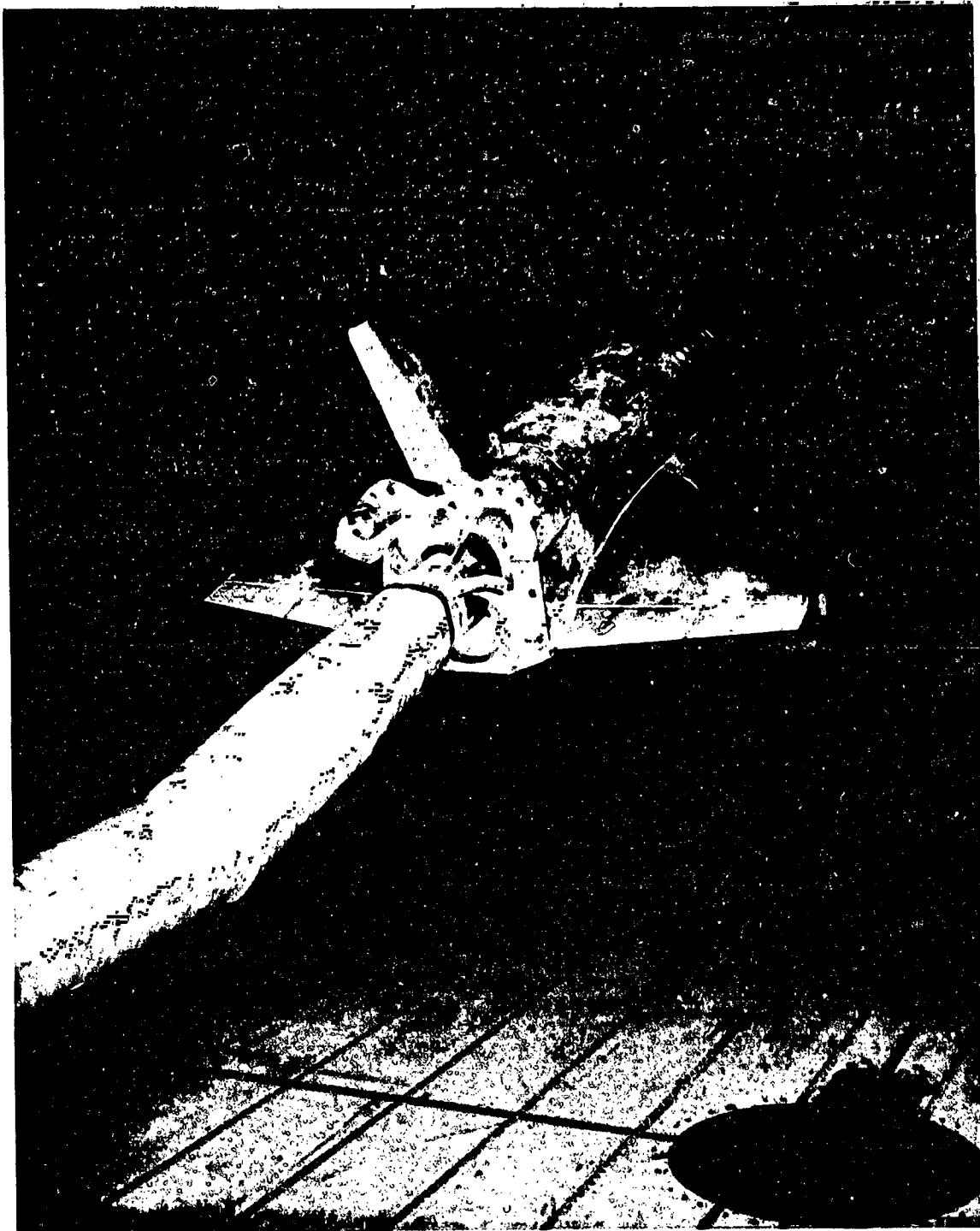
Figure 3. - Continued.

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d. Top View of Model Mounted Sideways in the 9 x 7 Foot Tunnel

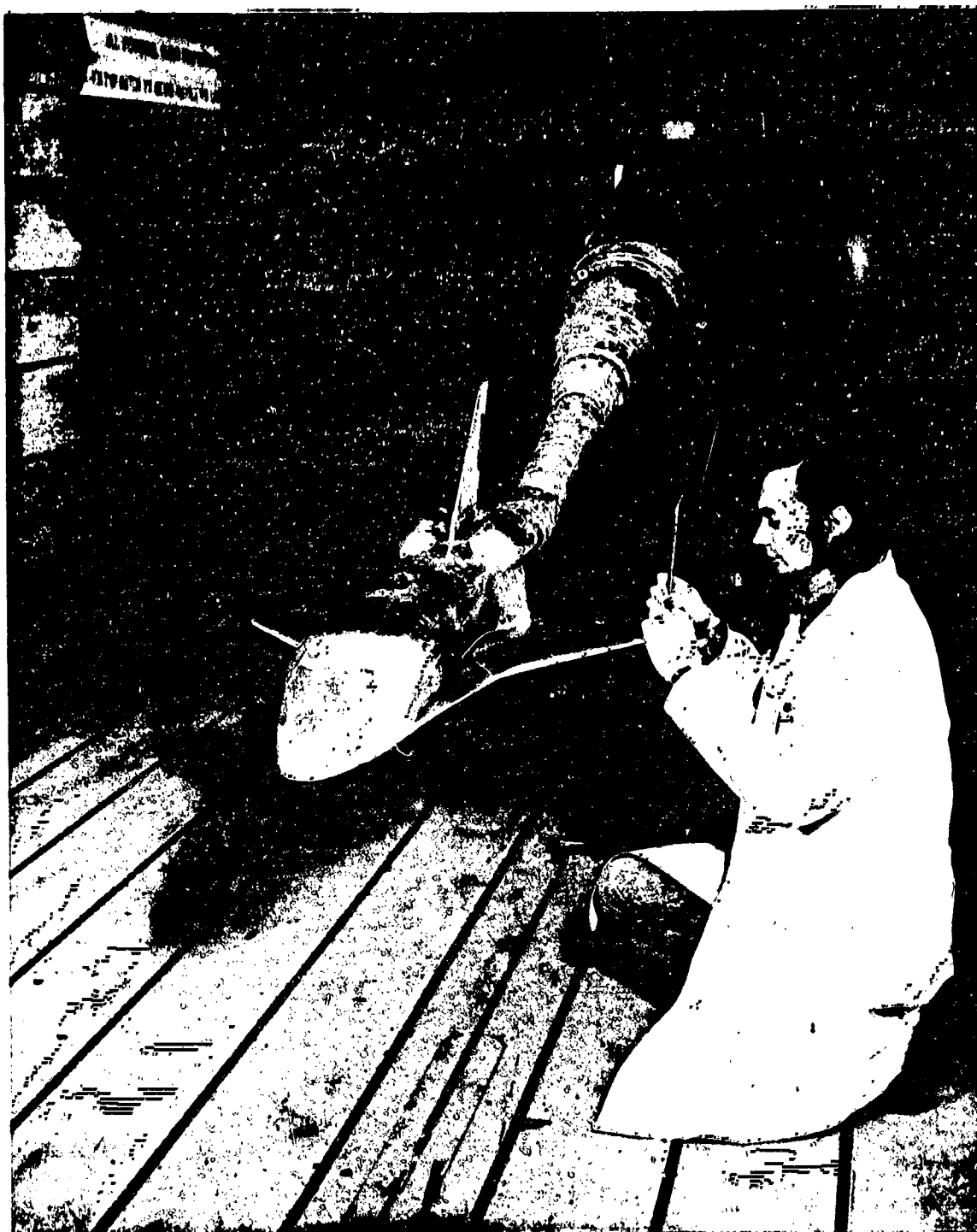
Figure 3. - Continued.



e. Rear View of Model Mounted Upright in the 11 x 11 Foot Tunnel

Figure 3. - Continued.

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f. Front View of Model Mounted Upright in the 11 x 11 Foot Tunnel

Figure 3. - Concluded.

APPENDIX
TABULATED DATA

| <u>CONTENTS</u> | <u>DATASET IDENTIFIER</u> | <u>PAGES</u> |
|---|--|--------------|
| Wind Tunnel Balance Data | RE7C\$\$ | 1-161 |
| Wind Tunnel Static Pressure Ratios | AE7R\$\$ | 162-322 |
| Wind Tunnel Total Pressure Ratios | BE7R\$\$ | 323-483 |
| Calculations for the Left Rake | EE7 $\begin{pmatrix} B \\ C \\ D \\ X \end{pmatrix}$ 03 \Rightarrow 07 | 484-587 |
| Calculations for the Right Rake | FE7 $\begin{pmatrix} B \\ C \\ D \\ X \end{pmatrix}$ 03 \Rightarrow 07 | 588-691 |
| Calculations of Q Ratio for Both Rakes & Probes | BE7H01, 03 \Rightarrow 07 38 \Rightarrow 49 | 691-732 |
| Calculations for the Nose and Wing Probes | GE7 $\begin{pmatrix} B \\ X \end{pmatrix}$ 38 \Rightarrow 49 | 733-756 |

Note: \$\$ is a mask character (assumes all possible values)
For this test the datasets are 1 \Rightarrow 49, 55 \Rightarrow 59.

ARC 11-97-87-08* 0A161 ORBITER - WING + RAKES

PARAMETRIC DATA

BETA = .060 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 2 / 0 RAVL = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CL | CLM | CLN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|---------|---------|---------|---------|---------|---------|-----|
| .596 | .059 | .16200 | -.04250 | .05130 | -.04240 | .05130 | .00190 | -.00020 | .00050 | -.82870 | |
| .595 | 4.022 | .20740 | -.04090 | .04550 | -.03760 | .04830 | -.00120 | -.00020 | .00040 | -.89860 | |
| .595 | 8.064 | .21740 | -.00840 | .04620 | .00680 | .04570 | -.00270 | -.00010 | .00050 | .00870 | |
| .595 | 12.146 | .20890 | .07040 | .09250 | .08210 | .04670 | .00050 | -.00020 | .00030 | 1.11860 | |
| .596 | 16.684 | .23170 | .14090 | .13420 | .16430 | .04750 | -.00050 | -.00050 | .00040 | 1.33530 | |
| .596 | 20.839 | .23150 | .19570 | .12880 | .18140 | .05070 | .00050 | -.00030 | .00030 | 1.52000 | |
| .597 | 24.765 | .24450 | .24050 | .22870 | .28690 | .04790 | .00320 | -.00140 | -.00070 | 1.45940 | |
| | GRADIENT | .01149 | .00040 | .00686 | .00121 | -.00076 | -.00078 | -.00000 | -.00003 | -.01788 | |

RUN NO. 3 / 0 RAVL = 4.21 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CL | CLM | CLN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|---------|---------|---------|---------|---------|---------|-----|
| .597 | .057 | .16340 | -.04580 | .01500 | -.04570 | .05350 | .00110 | -.00050 | .00050 | -.85560 | |
| .599 | 4.019 | .20470 | -.03840 | .04280 | -.03470 | .05030 | .00040 | .00010 | .00040 | -.79810 | |
| .599 | 8.073 | .21220 | .00550 | .06890 | .01240 | .04850 | .00190 | .00130 | .00050 | .10990 | |
| .599 | 12.376 | .20900 | .08010 | .09870 | .09280 | .04920 | .00180 | -.00330 | .00020 | 1.17830 | |
| .599 | 16.532 | .23040 | .14560 | .14130 | .16980 | .05060 | -.00060 | -.00040 | .00040 | 1.54850 | |
| .597 | 20.705 | .23220 | .20360 | .19180 | .23770 | .05280 | .00300 | -.00020 | .00040 | 1.52660 | |
| .597 | 24.854 | .25760 | .25870 | .24400 | .30760 | .04850 | -.00430 | -.00050 | .00110 | 1.42260 | |
| | GRADIENT | .00992 | .00194 | .00732 | .00278 | -.00081 | -.00018 | -.00015 | -.00003 | .01452 | |

RUN NO. 4 / 0 RAVL = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CL | CLM | CLN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|---------|---------|---------|---------|---------|---------|-----|
| .799 | .041 | .16490 | -.05140 | .01910 | -.05130 | .05780 | -.00040 | -.00020 | .00030 | -.88910 | |
| .799 | 4.013 | .20160 | -.03790 | .04750 | -.03410 | .05440 | .00010 | .00040 | .00030 | -.72950 | |
| .799 | 8.083 | .21090 | .01100 | .07370 | .01870 | .05360 | .00280 | -.00960 | .00050 | .19730 | |
| .797 | 12.400 | .21590 | .08770 | .10530 | .10160 | .05340 | .00080 | -.00040 | .00040 | 1.18700 | |
| .797 | 15.594 | .23740 | .15740 | .15240 | .18100 | .05620 | -.00320 | -.00200 | .00100 | 1.49120 | |
| .795 | 20.778 | .24530 | .21930 | .20490 | .25670 | .05830 | -.00670 | -.00330 | .00170 | 1.50840 | |
| .795 | 24.949 | .25610 | .27810 | .25820 | .33320 | .05700 | -.00070 | -.00630 | .00220 | 1.44620 | |
| | GRADIENT | .00924 | .00340 | .00715 | .00433 | -.00086 | .00013 | -.00015 | -.00000 | .04018 | |

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TABLULATED DATA - 0A164 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER - WING + RAKES

(RE7001) (02 AUG. 76)

PARAMETRIC DATA

BETA = .000 BFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|---------|--------|---------|---------|---------|---------|--------|---------|
| .902 | .028 | .15640 | -.05970 | .07240 | .02870 | -.05970 | -.07250 | .02290 | .00050 | .00000 | -.82460 |
| .903 | 4.018 | .20410 | -.04080 | .06630 | .05890 | -.03600 | .06900 | -.00520 | .00000 | .00000 | -.61520 |
| .901 | 8.097 | .21540 | .01580 | .06920 | .08300 | .02520 | .06440 | -.00290 | .00000 | .00010 | .22500 |
| .900 | 12.543 | .22840 | .09760 | .11820 | .11460 | .11820 | .06620 | -.00010 | -.00930 | .00050 | 1.09270 |
| .900 | 16.649 | .23740 | .17210 | .12430 | .16600 | .20050 | .06980 | -.00720 | -.00140 | .00050 | 1.38390 |
| .899 | 20.895 | .24210 | .23900 | .16500 | .23670 | .28220 | .06890 | -.00840 | -.00240 | .00020 | 1.44910 |
| .897 | 25.105 | .24030 | .31510 | .22210 | .29710 | .37950 | .06740 | -.00420 | .00020 | .00020 | 1.41890 |
| | GRADIENT | .01196 | .00474 | -.00153 | .00757 | .00594 | -.00088 | -.00203 | -.00013 | .00000 | .05249 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|
| .981 | .031 | .16850 | -.05730 | .10440 | .03630 | -.05720 | .10440 | -.00300 | .00030 | .00020 | -.54860 |
| .982 | 4.031 | .20500 | -.03510 | .09460 | .06740 | -.02840 | .09690 | -.00350 | .00040 | .00010 | -.37100 |
| .980 | 8.137 | .21850 | .02570 | .10080 | .09810 | .03570 | .08610 | -.00360 | .00020 | .00020 | .25500 |
| .978 | 12.528 | .20800 | .11390 | .14840 | .14840 | .13660 | .09870 | .00090 | .00070 | .00050 | .90130 |
| .978 | 16.700 | .22920 | .19250 | .15880 | .20570 | .23020 | .09650 | -.00010 | -.00020 | .00050 | 1.21270 |
| .976 | 21.008 | .22570 | .26560 | .19800 | .26550 | .32090 | .09490 | .00340 | -.00020 | .00010 | 1.30430 |
| .974 | 25.240 | .22000 | .36940 | .26180 | .30260 | .44580 | .07930 | .00450 | .00180 | .00020 | 1.41100 |
| | GRADIENT | .00937 | .00555 | -.00245 | .00777 | .00720 | -.00187 | -.00012 | .00017 | -.00002 | .04439 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|--------|---------|--------|---------|---------|--------|---------|
| 1.104 | .023 | .15160 | -.05260 | .12230 | .03640 | -.05250 | .12230 | .00620 | .00010 | .00040 | -.42990 |
| 1.100 | 4.040 | .19650 | -.02960 | .12060 | .07100 | -.02100 | .12240 | .00260 | .00060 | .00040 | -.24580 |
| 1.100 | 8.161 | .22060 | .03260 | .12770 | .10470 | .05050 | .12180 | -.00470 | .00000 | .00020 | .25490 |
| 1.097 | 12.546 | .21530 | .11880 | .15730 | .14450 | .15010 | .12770 | .00270 | -.00030 | .00020 | .75570 |
| 1.097 | 16.786 | .25090 | .19660 | .19300 | .19300 | .24620 | .12620 | -.00160 | -.00030 | .00000 | 1.02450 |
| 1.093 | 21.030 | .23100 | .25590 | .23180 | .24200 | .32200 | .12450 | .00030 | -.00090 | .00000 | 1.10390 |
| 1.088 | 25.256 | .22500 | .35280 | .29670 | .27940 | .44530 | .11690 | .00450 | .00060 | .00000 | 1.19300 |
| | GRADIENT | .01118 | .00573 | -.00042 | .00861 | .00784 | .00802 | -.00090 | .00012 | .00000 | .04603 |

ARC 11-97-87-094 0A161 ORBITER - WING + RAKES

(RE7001) (02 AUG 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0330

BETA = .000 BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|
| 1.196 | .009 | .16020 | -.05280 | .12680 | .03690 | -.05280 | .12680 | .00450 | -.00040 | -.00050 | -.41660 |
| 1.200 | 4.038 | .19360 | -.02820 | .12860 | .07240 | -.01950 | .12430 | .00050 | .00810 | .00050 | -.23040 |
| 1.193 | 8.158 | .20480 | .03460 | .13090 | .10390 | .05280 | .12460 | .00350 | .0020 | .00040 | -.26430 |
| 1.196 | 12.545 | .20100 | .11670 | .13950 | .14150 | .14850 | .13030 | .00450 | -.00020 | .00030 | -.73160 |
| 1.196 | 16.783 | .22220 | .19130 | .15300 | .18670 | .23910 | .13940 | .00340 | -.00020 | .00020 | .98670 |
| 1.191 | 21.027 | .22420 | .25250 | .23360 | .24210 | .31950 | .12750 | .00160 | -.00050 | .00010 | 1.08090 |
| 1.190 | 25.266 | .22070 | .32290 | .29490 | .26530 | .44500 | .11600 | .00350 | -.00020 | .00030 | 1.19680 |
| | GRADIENT | .00829 | .00611 | -.00104 | .00881 | .00826 | -.00062 | -.00099 | .00012 | .00000 | .04621 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|
| 1.298 | -.004 | .16350 | -.09400 | .12630 | .03440 | -.05400 | .12630 | .00090 | -.00160 | .00060 | -.42760 |
| 1.298 | 4.024 | .20220 | -.02940 | .12230 | .06920 | -.01680 | .12380 | .00150 | -.00090 | .00050 | -.20780 |
| 1.297 | 8.151 | .18520 | .03590 | .13080 | .08100 | .05410 | .12440 | .01700 | .00080 | .00070 | -.27470 |
| 1.294 | 12.538 | .20390 | .11750 | .15810 | .13390 | .14900 | .12990 | .00390 | -.00070 | .00040 | -.74280 |
| 1.294 | 16.778 | .22660 | .18980 | .19290 | .17850 | .23680 | .13010 | .00040 | -.00070 | .00010 | .98090 |
| 1.293 | 21.026 | .21860 | .25270 | .23170 | .28960 | .31800 | .12580 | .00330 | .00840 | .00000 | 1.09040 |
| 1.290 | 25.268 | .22700 | .35040 | .29070 | .25540 | .44090 | .11330 | -.00280 | -.00950 | .00000 | 1.23540 |
| | GRADIENT | .00961 | .00710 | -.00099 | .00854 | .00923 | -.00082 | -.00060 | .00017 | -.00002 | .05458 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|
| 1.408 | -.022 | .14420 | -.05350 | .12460 | .05020 | -.05360 | .12460 | .01110 | .00000 | .00070 | -.42930 |
| 1.402 | 4.011 | .20200 | -.02810 | .12050 | .06330 | -.01360 | .12160 | .00010 | -.00030 | .00050 | -.18860 |
| 1.401 | 8.144 | .21430 | .03770 | .12850 | .09190 | .05550 | .12180 | .00070 | .00040 | .00030 | -.29310 |
| 1.400 | 12.526 | .21020 | .11580 | .14640 | .12550 | .14640 | .12550 | .00040 | -.00020 | .00010 | -.75130 |
| 1.397 | 16.768 | .22490 | .18650 | .18890 | .17820 | .23310 | .12710 | .00130 | .00020 | .00000 | .98710 |
| 1.396 | 21.013 | .23100 | .25400 | .23620 | .24520 | .31840 | .12340 | .00360 | .00000 | -.00010 | 1.12120 |
| 1.394 | 25.266 | .20980 | .35020 | .28610 | .24250 | .43840 | .10330 | .00150 | -.00010 | .00010 | 1.22840 |
| | GRADIENT | .01433 | .00779 | -.00107 | .00818 | .00992 | -.00074 | -.00273 | -.00007 | -.00005 | .05032 |

(RE7002) (02 AUG 78)

TABLATED DATA - OAI61 (ARC 11-97-87-094)
ARC 11-97-87-094 OAI61 ORBITER - KING

REFERENCE DATA

SREF = 2690.0000 50. FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = .000 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 282/ 0 RVAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|--------|---------|--------|---------|---------|---------|---------|---------|---------|
| .595 | .066 | .18320 | -.03880 | .0450 | -.03870 | .05680 | .00580 | -.00020 | .00070 | -.76370 |
| .598 | 4.082 | .23520 | -.01490 | .04280 | -.01150 | .04840 | .00100 | -.00030 | .00050 | -.31480 |
| .599 | 8.125 | .24350 | .02490 | .06820 | .03170 | .04598 | .00070 | -.00000 | .00050 | .19800 |
| .596 | 12.205 | .23950 | .09320 | .09280 | .10540 | .00310 | .00310 | -.00020 | .00020 | 1.37420 |
| .595 | 16.337 | .26050 | .13160 | .09280 | .17390 | .04610 | .00320 | .00000 | .00020 | 1.55190 |
| .595 | 20.493 | .26980 | .17740 | .13100 | .24320 | .05000 | -.00050 | -.00050 | .00000 | 1.58410 |
| .597 | 24.613 | .24980 | .20740 | .22580 | .29620 | .04680 | .00290 | -.00020 | -.00020 | 1.50570 |
| GRADIENT | .01295 | .00995 | .00705 | .00677 | .00677 | -.00860 | -.00120 | -.00002 | -.00002 | -.11776 |

RUN NO. 283/ 0 RVAL = 4.32 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|--------|---------|--------|---------|---------|---------|---------|---------|---------|
| .978 | .028 | .18540 | -.05020 | .03770 | -.05020 | .10150 | .00110 | -.00030 | .00050 | -.49520 |
| .988 | 4.088 | .23090 | -.02060 | .06380 | -.04380 | .09560 | .00040 | -.00040 | .00050 | -.21950 |
| .979 | 8.195 | .24730 | .04100 | .09950 | .05510 | .09320 | -.00340 | -.00010 | .00040 | .43150 |
| .973 | 12.374 | .24380 | .12200 | .14570 | .14610 | .09660 | -.00210 | .00010 | .00050 | .97050 |
| .983 | 16.642 | .26400 | .19440 | .20170 | .23610 | .09410 | -.00100 | .00030 | .00040 | 1.26490 |
| .988 | 20.864 | .26800 | .27490 | .26230 | .33000 | .09380 | -.00148 | -.00010 | -.00040 | 1.34030 |
| .977 | 25.082 | .27270 | .36950 | .30188 | .44470 | .08090 | -.00230 | -.00010 | .00040 | 1.40780 |
| GRADIENT | .01121 | .00729 | .00175 | .00789 | .00897 | -.00145 | -.00027 | .00017 | .00000 | .06618 |

RUN NO. 284/ 0 RVAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|--------|---------|--------|---------|---------|---------|---------|---------|---------|
| 1.095 | .023 | .18900 | -.04230 | .03720 | -.04230 | .12430 | -.00110 | -.00080 | .00060 | -.34060 |
| 1.097 | 4.094 | .24050 | -.01408 | .07340 | -.00540 | .12160 | -.00590 | -.00050 | .00050 | -.11590 |
| 1.098 | 8.220 | .24700 | .04700 | .10610 | .06510 | .12160 | -.00260 | -.00020 | .00030 | .36280 |
| 1.097 | 12.393 | .24530 | .12650 | .14350 | .15740 | .12700 | -.00220 | -.00030 | .00030 | .80190 |
| .988 | 16.634 | .26970 | .19200 | .15780 | .15740 | .12560 | .00260 | -.00016 | .00020 | 1.06420 |
| 1.097 | 20.876 | .26190 | .26180 | .25060 | .25090 | .12560 | -.00280 | -.00030 | .00020 | 1.15010 |
| 1.097 | 25.099 | .27180 | .35430 | .27910 | .32730 | .12320 | -.00170 | -.00110 | .00020 | 1.21630 |
| GRADIENT | .01121 | .00689 | .00084 | .00869 | .00907 | -.00066 | -.00118 | .00007 | -.00002 | .05518 |

(RE7002) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 BOFLAP = -7.170

TABULATED DATA - OAI61 (ARC 11-97-87-094)

ARC 11-97-87-094 OAI61 ORBITER - NING

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0.
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 285 / 0 RVAL = 4.27 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|--------|---------|---------|---------|---------|---------|---------|
| 1.198 | .010 | .13810 | -.04480 | .3780 | -.04480 | .12600 | -.00600 | -.00170 | .00060 | -.35580 |
| 1.197 | 2.054 | .22700 | -.03200 | .05590 | -.02760 | .12390 | .00540 | -.00020 | .00060 | -.26080 |
| 1.198 | 4.099 | .23410 | -.01420 | .07460 | -.00540 | .12350 | .00050 | -.00020 | .00060 | -.11540 |
| 1.198 | 6.143 | .24450 | .01310 | .03060 | .03640 | .12350 | -.00300 | -.00860 | .00050 | -.10410 |
| 1.198 | 8.223 | .24070 | .04750 | .10520 | .06530 | .12390 | .00200 | -.00000 | .00050 | .35960 |
| 1.196 | 10.311 | .24630 | .08630 | .12180 | .11090 | .12740 | -.00120 | -.00010 | .00040 | .59430 |
| 1.196 | 12.401 | .25860 | .12520 | .14070 | .15660 | .12950 | -.08400 | -.00110 | .00020 | .78190 |
| 1.196 | 14.515 | .28230 | .16590 | .16180 | .20480 | .12910 | .08170 | -.00070 | .00020 | .94100 |
| 1.197 | 16.638 | .26720 | .19930 | .18680 | .24680 | .12900 | -.00260 | -.00090 | .00000 | 1.02830 |
| 1.196 | 18.751 | .27130 | .22900 | .21550 | .28570 | .12920 | .00120 | -.00100 | .00030 | 1.05810 |
| 1.196 | 20.887 | .26840 | .26060 | .23720 | .32720 | .12590 | -.00210 | -.00050 | .00010 | 1.10550 |
| 1.196 | 22.998 | .26430 | .29870 | .25820 | .37630 | .12220 | .00310 | -.00030 | -.00010 | 1.15080 |
| 1.196 | 25.116 | .26270 | .35380 | .26480 | .44420 | .11410 | .00330 | -.00070 | .00010 | 1.21190 |
| 1.197 | 25.169 | .25800 | .38300 | .26530 | .48210 | .11260 | .00250 | -.00070 | .00010 | 1.22120 |
| | GRADIENT | .00893 | .00750 | .00902 | .00966 | -.00061 | .00135 | .00037 | .00000 | .09882 |

(RE7003) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-084)
ARC 11-97-87-084 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2880.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 938.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.199 | .039 | -4.97040 | .02070 | .03150 | -.02050 | .14630 | .06310 | -.00650 | .00790 | -.14190 |
| 1.201 | 2.180 | -4.97620 | .09990 | .10550 | .10550 | .14560 | .06160 | -.00530 | .00820 | .66770 |
| 1.201 | 4.275 | -4.96620 | .21690 | .16050 | .22820 | .14390 | .07870 | -.00420 | .00880 | 1.35120 |
| 1.199 | 6.465 | -4.94870 | .33080 | .03140 | .34970 | .14080 | .07150 | -.00240 | .00910 | 1.85020 |
| 1.197 | 8.546 | -4.94490 | .44000 | -.04200 | .46580 | .13910 | .07530 | -.00180 | .00900 | 2.12740 |
| 1.194 | 10.701 | -4.94170 | .54540 | -.06020 | .58180 | .13730 | .07830 | -.00100 | .00820 | 2.24400 |
| 1.195 | 12.857 | -4.94230 | .65360 | -.08200 | .70130 | .13560 | .08140 | -.00130 | .00710 | 2.21400 |
| 1.194 | 15.033 | -4.95320 | .76000 | -.09950 | .82300 | .13400 | .07980 | .00410 | .00680 | 2.10920 |
| 1.196 | 17.124 | -4.98050 | .84950 | -.07450 | .93060 | .13070 | .07850 | .00950 | .00730 | 1.99850 |
| 1.196 | 19.354 | -4.98970 | .93030 | -.07840 | 1.03200 | .12690 | .06950 | .01430 | .00780 | 1.88880 |
| 1.193 | 21.517 | -4.97880 | 1.00870 | -.07840 | 1.13430 | .12090 | .07000 | .01740 | .00670 | 1.78510 |
| 1.192 | 23.659 | -4.97210 | 1.08140 | -.06236 | 1.23360 | .11710 | .06120 | .02060 | .00840 | 1.67070 |
| 1.192 | 25.774 | -4.94480 | 1.12400 | -.06236 | 1.30470 | .11710 | .06120 | .02060 | .00840 | 1.55748 |
| | GRADIENT | .00101 | .05689 | -.01135 | .00343 | -.00057 | -.00105 | .00057 | .00022 | |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.556 | .089 | -5.61920 | -.01790 | .00860 | -.01780 | .13950 | .08540 | -.00400 | .00230 | -.12820 |
| 1.556 | 2.023 | -5.61990 | .07340 | -.00750 | .07820 | .13680 | .08250 | -.00310 | .00290 | .52680 |
| 1.556 | 4.108 | -5.61630 | .16930 | -.02350 | .17930 | .13390 | .07710 | -.00170 | .00310 | 1.15640 |
| 1.556 | 6.184 | -5.61670 | .26170 | -.03790 | .27740 | .13120 | .07340 | .00040 | .00370 | 1.63260 |
| 1.556 | 8.259 | -5.61710 | .35000 | -.04840 | .37240 | .12880 | .07250 | .00140 | .00360 | 1.93280 |
| 1.556 | 10.334 | -5.61790 | .43780 | -.05910 | .46830 | .12780 | .07140 | .00180 | .00360 | 2.09720 |
| 1.556 | 12.388 | -5.61930 | .51970 | -.06570 | .55960 | .12510 | .07240 | .00290 | .00330 | 2.14210 |
| 1.556 | 14.485 | -5.61980 | .59800 | -.07100 | .65220 | .12250 | .07170 | .00460 | .00330 | 2.13140 |
| 1.556 | 16.634 | -5.61910 | .67950 | -.07630 | .74470 | .11880 | .06990 | .00680 | .00320 | 2.07780 |
| 1.556 | 18.733 | -5.62190 | .75740 | -.08060 | .83860 | .11470 | .06890 | .00920 | .00320 | 2.00420 |
| 1.556 | 20.770 | -5.64820 | .83770 | -.08560 | .93790 | .11060 | .06210 | .01360 | .00330 | 1.92139 |
| 1.556 | 22.934 | -5.61490 | .95770 | -.08370 | 1.11610 | .10540 | .05840 | .01980 | .00340 | 1.72980 |
| 1.556 | 25.961 | -5.61220 | 1.00020 | -.08260 | 1.16340 | .10450 | .05650 | .02000 | .00410 | 1.65810 |
| | GRADIENT | .00071 | .04585 | -.00786 | .04828 | -.00137 | -.00204 | .00056 | .00015 | .31456 |

GRADIENT INTERVAL = -5.00/ 5.00

(RE70031 (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 3067 0 RVAL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|----------|----------|----------|---------|---------|---------|---------|---------|
| 1.750 | -0.098 | -5.44620 | -0.02020 | -0.0240 | -0.02040 | .13620 | .08930 | -.00360 | .00250 | -.14830 |
| 1.750 | 1.962 | -5.44890 | .06250 | -0.01490 | .06700 | .13310 | .08530 | -.00250 | .00250 | .46240 |
| 1.750 | 3.973 | -5.44940 | .14760 | -0.02730 | .15640 | .13020 | .08220 | -.00070 | .00250 | 1.04430 |
| 1.750 | 6.044 | -5.44950 | .22880 | -0.03780 | .24360 | .12740 | .07870 | .00100 | .00240 | 1.90170 |
| 1.750 | 9.116 | -5.44750 | .30790 | -0.04580 | .32890 | .12540 | .07480 | .00250 | .00230 | 1.80460 |
| 1.750 | 10.183 | -5.44560 | .38560 | -0.05140 | .41390 | .12340 | .07320 | .00310 | .00290 | 1.98050 |
| 1.750 | 12.229 | -5.44500 | .46090 | -0.05660 | .49730 | .12030 | .07190 | .00440 | .00330 | 2.05650 |
| 1.750 | 14.316 | -5.44490 | .53620 | -0.06130 | .58330 | .11736 | .07090 | .00630 | .00350 | 2.07880 |
| 1.750 | 16.454 | -5.44430 | .61240 | -0.06430 | .67220 | .11360 | .06780 | .00860 | .00330 | 2.04490 |
| 1.750 | 18.563 | -5.44390 | .68960 | -0.06780 | .76030 | .10850 | .06400 | .01210 | .00340 | 1.99880 |
| 1.750 | 20.586 | -5.44340 | .76970 | -0.07110 | .85110 | .10550 | .05980 | .01520 | .00400 | 1.71430 |
| 1.750 | 24.736 | -5.43580 | .89660 | -0.07630 | 1.02860 | .09940 | .05580 | .01920 | .00420 | 1.69440 |
| 1.750 | 25.764 | -5.43320 | .92840 | -0.07860 | 1.07860 | .09680 | .05480 | .02000 | .00400 | .29263 |
| | GRADIENT | -.00078 | .04104 | -.00611 | .04339 | -.00147 | -.00174 | -.00071 | -.00000 | |

RUN NO. 3157 0 RVAL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|----------|----------|----------|---------|---------|---------|---------|---------|
| 1.925 | -0.026 | -5.97310 | -0.02190 | -0.01090 | -0.02190 | .12840 | .09390 | -.00180 | .00270 | -.17040 |
| 1.925 | 1.964 | -5.96960 | .05180 | -0.01920 | .05610 | .12570 | .08810 | -.00090 | .00240 | .40590 |
| 1.925 | 4.034 | -5.97000 | .12730 | -0.02870 | .13620 | .12290 | .08470 | .00070 | .00210 | .96280 |
| 1.925 | 6.098 | -5.97220 | .19830 | -0.03330 | .21230 | .12050 | .08110 | .00260 | .00200 | 1.39270 |
| 1.925 | 8.161 | -5.97120 | .26840 | -0.03820 | .28820 | .11860 | .07800 | .00490 | .00180 | 1.69470 |
| 1.925 | 10.222 | -5.96940 | .33870 | -0.04160 | .36610 | .11620 | .07390 | .00530 | .00240 | 1.89170 |
| 1.925 | 12.262 | -5.96920 | .40900 | -0.04450 | .44220 | .11360 | .07300 | .00660 | .00270 | 1.99080 |
| 1.925 | 14.348 | -5.96630 | .47720 | -0.04660 | .52090 | .11040 | .06930 | .00850 | .00300 | 2.02240 |
| 1.925 | 16.483 | -5.96500 | .54750 | -0.04890 | .60220 | .10620 | .06590 | .01100 | .00310 | 2.00720 |
| 1.925 | 18.578 | -5.96590 | .61900 | -0.05400 | .68390 | .10220 | .06000 | .01410 | .00290 | 1.98090 |
| 1.925 | 20.594 | -5.96490 | .69200 | -0.05890 | .77250 | .09980 | .05000 | .01620 | .00300 | 1.96530 |
| 1.925 | 22.673 | -5.96030 | .76290 | -0.06230 | .86530 | .09640 | .04080 | .01760 | .00370 | 1.79700 |
| 1.925 | 24.737 | -5.94610 | .83290 | -0.06230 | .94450 | .09450 | .03110 | .01840 | .00410 | 1.70510 |
| 1.925 | 25.762 | -5.95210 | .86230 | -0.06440 | .99070 | .09190 | .02960 | .01870 | .00450 | 1.66640 |
| | GRADIENT | -.00076 | .00094 | -.00448 | .00394 | -.00135 | -.00226 | -.00062 | -.00015 | .27595 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6880 IN. X0
LREF = 474.8000 IN. YMRP = 0000 IN. Y0
BREF = 936.6880 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AIRLON = .000 BOFLAP = -7.170

RUN NO. 316# 0 RML = 3.0% GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | -.100 | -6.11270 | -.02640 | .12078 | -.01650 | -.02650 | .12070 | .10190 | -.00430 | .00280 | -.21870 |
| 2.250 | 1.881 | -6.11300 | .03980 | .11990 | -.02170 | .04310 | .11850 | .09650 | -.00340 | .00270 | .32680 |
| 2.250 | 3.941 | -6.11297 | 1.0200 | .12330 | -.02580 | .11030 | .11600 | .09340 | -.00200 | .00270 | .82760 |
| 2.250 | 5.996 | -6.10986 | .16720 | .13120 | -.03130 | .18000 | .11310 | .08540 | -.00010 | .00270 | 1.27380 |
| 2.250 | 8.062 | -6.11170 | .23070 | .14500 | -.03240 | .24880 | .11130 | .08140 | .00200 | .00270 | 1.59120 |
| 2.250 | 10.165 | -6.11200 | .29490 | .16330 | -.03320 | .31900 | .10900 | .08060 | .00330 | .00340 | 1.80890 |
| 2.250 | 12.135 | -6.10990 | .36010 | .18630 | -.03510 | .39120 | .10640 | .07580 | .00550 | .00340 | 1.93320 |
| 2.250 | 14.213 | -6.10560 | .42790 | .21440 | -.03810 | .46790 | .10280 | .07450 | .00660 | .00380 | 1.98580 |
| 2.250 | 16.343 | -6.10270 | .49190 | .24780 | -.04030 | .54170 | .09840 | .07250 | .00420 | .00430 | 1.94340 |
| 2.250 | 18.425 | -6.10030 | .55090 | .28660 | -.04340 | .62340 | .09680 | .07030 | .01010 | .00460 | 1.87820 |
| 2.250 | 20.440 | -6.09850 | .60550 | .33360 | -.04690 | .70360 | .09380 | .06880 | .01190 | .00500 | 1.79350 |
| 2.250 | 22.509 | -6.09470 | .68870 | .38400 | -.04930 | .78320 | .09110 | .06790 | .01320 | .00550 | 1.70770 |
| 2.250 | 24.565 | -6.09180 | .75310 | .44100 | -.05250 | .86820 | .08800 | .06800 | .01440 | .00560 | 1.62360 |
| 2.250 | 25.588 | -6.08900 | .78570 | .47230 | -.05470 | .91260 | .08660 | .06740 | .01480 | .00560 | 1.54840 |
| | GRADIENT | -.00005 | .03177 | .00065 | -.00262 | .03387 | -.00116 | -.00210 | .00057 | -.00022 | .29880 |

RUN NO. 441# 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .094 | -4.94730 | -.03350 | .11530 | -.01920 | -.03330 | .11540 | .09540 | -.00210 | .00280 | -.29040 |
| 2.499 | 2.131 | -4.94650 | .01980 | .11290 | -.02250 | .02390 | .11210 | .09000 | -.00110 | .00270 | .17490 |
| 2.499 | 4.183 | -4.96100 | .07720 | .11560 | -.02570 | .08540 | .10970 | .08450 | .00030 | .00280 | .65780 |
| 2.499 | 6.219 | -4.97910 | .13520 | .12200 | -.02690 | .14860 | .10550 | .08100 | .00220 | .00300 | 1.11590 |
| 2.499 | 8.250 | -4.99180 | .19590 | .13370 | -.02810 | .21300 | .10420 | .07590 | .00320 | .00350 | 1.46490 |
| 2.499 | 10.297 | -5.00220 | .26020 | .15160 | -.02880 | .28310 | .10270 | .07440 | .00490 | .00430 | 1.71620 |
| 2.499 | 12.331 | -5.00860 | .32440 | .17370 | -.03090 | .35410 | .10040 | .07230 | .00580 | .00570 | 1.98750 |
| 2.499 | 14.382 | -5.00990 | .39110 | .20150 | -.03310 | .42890 | .09810 | .06970 | .00730 | .00620 | 1.95430 |
| 2.499 | 16.413 | -5.00790 | .45580 | .23320 | -.03530 | .50310 | .09490 | .06770 | .00840 | .00660 | 1.91050 |
| 2.499 | 18.461 | -5.00240 | .52750 | .27240 | -.03840 | .58200 | .09350 | .06530 | .01100 | .00720 | 1.94750 |
| 2.499 | 20.507 | -4.99270 | .58240 | .31520 | -.04040 | .66590 | .09120 | .06450 | .01180 | .00780 | 1.77340 |
| 2.499 | 22.541 | -4.97780 | .64490 | .36350 | -.04330 | .73600 | .08850 | .06190 | .01190 | .00860 | 1.69010 |
| 2.499 | 24.592 | -4.95970 | .70660 | .41810 | -.04670 | .81640 | .08610 | .06020 | .01270 | .00860 | 1.64640 |
| 2.499 | 25.614 | -4.94300 | .73610 | .44710 | -.04790 | .85710 | .08490 | .06050 | .01320 | .00820 | 1.64640 |
| | GRADIENT | -.01069 | .02707 | .00007 | -.00150 | .02903 | -.00133 | -.00291 | .00099 | -.00000 | .23431 |

(RE7003) (02 AUG. 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0003 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 47.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA =
ATLIRON =

-5.000 ELEVON = .000
.000 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 4404 Q RVAL = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|
| 3.499 | -4.88390 | -0.4440 | -0.4440 | .10340 | -.02270 | -.04440 | .10340 | .09420 | -.00120 | .00210 | -.42980 |
| 3.499 | -4.90540 | .00360 | .00720 | .10070 | -.02270 | .00720 | .10050 | .08680 | -.00080 | .00260 | -.33620 |
| 3.499 | -4.92740 | .05320 | .10680 | .09800 | -.02300 | .06080 | .09680 | .08300 | .00040 | .00370 | -.52750 |
| 3.499 | -4.94570 | .10540 | .11500 | .09530 | -.02360 | .11500 | .09350 | .07970 | .00210 | .00360 | 1.00070 |
| 3.499 | -4.96860 | .15940 | .12970 | .09260 | -.02370 | .17400 | .09130 | .07640 | .00390 | .00350 | 1.38650 |
| 3.499 | -4.98750 | .21490 | .14940 | .08990 | -.02380 | .23440 | .08900 | .07340 | .00530 | .00330 | 1.65540 |
| 3.499 | -4.97410 | .27150 | .17310 | .08860 | -.02370 | .29700 | .08860 | .07350 | .00440 | .00320 | 1.81600 |
| 3.499 | -4.97350 | .32600 | .19400 | .08800 | -.02420 | .36200 | .08800 | .06950 | .00500 | .00300 | 1.98400 |
| 3.499 | -4.97550 | .38600 | .21170 | .08800 | -.02350 | .42950 | .08800 | .06910 | .00500 | .00300 | 2.16700 |
| 3.499 | -4.97400 | .44700 | .23570 | .08800 | -.02870 | .49910 | .08800 | .06910 | .00500 | .00300 | 2.36300 |
| 3.499 | -4.97400 | .50810 | .25700 | .08800 | -.02870 | .57230 | .08800 | .06910 | .00500 | .00300 | 2.57100 |
| 3.499 | -4.97400 | .56850 | .27100 | .08800 | -.03160 | .64490 | .08800 | .06910 | .00500 | .00300 | 2.79100 |
| 3.499 | -4.92490 | .62650 | .27080 | .08800 | -.03350 | .72370 | .08800 | .06910 | .00500 | .00300 | 3.03400 |
| 3.499 | -4.91470 | .65470 | .27080 | .08800 | -.03470 | .76180 | .08800 | .06910 | .00500 | .00300 | 3.29400 |
| 3.499 | -4.91070 | .62401 | -.00064 | -.00007 | -.00007 | -.00162 | -.00276 | -.00276 | -.00039 | .00027 | 2.3654 |

RUN NO. 4317 Q RVAL = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|
| 3.499 | -5.09780 | -0.4410 | -0.4410 | .09790 | -.02500 | -.04440 | .09780 | .09030 | -.00040 | .00120 | -.45020 |
| 3.499 | -5.12230 | .00660 | .00330 | .09390 | -.02320 | -.00350 | .09410 | .08650 | -.00020 | .00210 | -.06870 |
| 3.499 | -5.14290 | .03960 | .07920 | .09260 | -.02260 | .04570 | .08970 | .08220 | .00100 | .00290 | -.42780 |
| 3.499 | -5.15910 | .08580 | .09590 | .09390 | -.02220 | .09440 | .08670 | .07730 | .00150 | .00360 | .82660 |
| 3.499 | -5.17240 | .13410 | .10360 | .09360 | -.02130 | .14700 | .08420 | .07470 | .00200 | .00460 | 1.29390 |
| 3.499 | -5.18230 | .18470 | .11650 | .09260 | -.02040 | .20260 | .08300 | .07380 | .00260 | .00560 | 1.58430 |
| 3.499 | -5.19900 | .23820 | .13400 | .09200 | -.01970 | .26090 | .08170 | .07360 | .00360 | .00670 | 1.7745 |
| 3.499 | -5.19930 | .29570 | .15680 | .09160 | -.01960 | .32480 | .08060 | .07150 | .00440 | .00750 | 1.98500 |
| 3.499 | -5.18430 | .35050 | .18360 | .09100 | -.01910 | .38460 | .07970 | .06910 | .00540 | .00820 | 2.21890 |
| 3.499 | -5.18060 | .41030 | .21680 | .09000 | -.02000 | .45730 | .07880 | .06470 | .00600 | .00910 | 2.47410 |
| 3.499 | -5.17210 | .46920 | .25440 | .08900 | -.02140 | .52810 | .07750 | .06400 | .00710 | .00930 | 2.74800 |
| 3.499 | -5.15560 | .52520 | .29630 | .08800 | -.02240 | .59900 | .07650 | .06000 | .00790 | .00930 | 3.04210 |
| 3.499 | -5.13750 | .59520 | .34490 | .08800 | -.02400 | .67530 | .07530 | .05620 | .00890 | .00930 | 3.35620 |
| 3.499 | -5.12760 | .61300 | .37040 | .08800 | -.02400 | .71230 | .07470 | .05600 | .00930 | .00930 | 3.69400 |
| 3.499 | -5.11115 | .62071 | -.00131 | -.00059 | -.00059 | -.00229 | -.00200 | -.00200 | -.00035 | .00042 | 2.1720 |

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OF POOR QUALITY

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LPEF = 474.8000 IN. YMRP = .0000 IN. Y0
 SPEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0380

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 ABLR0N = .000 BDFLAP = -7.170

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.556 | .029 | -2.58140 | -.01780 | .13880 | .01010 | -.01780 | .13880 | .03420 | -.00080 | .00120 | -.12850 |
| 1.555 | 2.025 | -2.57978 | -.07350 | .13948 | -.08610 | .07840 | .13670 | .03170 | -.00080 | .00120 | .52720 |
| 1.555 | 4.108 | -2.58050 | .16820 | .14680 | -.02240 | .17890 | .13430 | .03070 | .00140 | .00140 | 1.14980 |
| 1.556 | 6.182 | -2.59110 | .26100 | .16050 | -.03680 | .27680 | .13160 | .03040 | .00160 | .00160 | 1.62470 |
| 1.556 | 8.256 | -2.57990 | .35260 | .18750 | -.04990 | .37510 | .12990 | .02990 | .00170 | .00170 | 1.93240 |
| 1.555 | 10.330 | -2.59000 | .43510 | .20950 | -.05800 | .46560 | .12810 | .03110 | .00170 | .00170 | 2.07660 |
| 1.555 | 12.378 | -2.59150 | .51440 | .24220 | -.06420 | .54440 | .12630 | .03140 | .00160 | .00160 | 2.12350 |
| 1.555 | 14.459 | -2.59290 | .59480 | .28110 | -.07200 | .64620 | .12360 | .03340 | .00140 | .00140 | 2.06050 |
| 1.555 | 16.617 | -2.58050 | .67450 | .32740 | -.07860 | .74080 | .11730 | .03330 | .00150 | .00150 | 1.98830 |
| 1.556 | 18.716 | -2.57820 | .75430 | .37950 | -.08250 | .83620 | .11380 | .03070 | .00160 | .00160 | 1.90510 |
| 1.555 | 20.753 | -2.57680 | .83390 | .43770 | -.08630 | .93490 | .10890 | .02680 | .00190 | .00190 | 1.69930 |
| 1.556 | 24.815 | -2.57020 | .97020 | .51080 | -.08690 | 1.12040 | .10890 | .02570 | .00190 | .00190 | 1.64500 |
| 1.555 | 28.943 | -2.56800 | 1.00190 | .60740 | -.08650 | 1.16670 | .10790 | .02570 | .00220 | .00220 | .31334 |
| | GRADIENT | .00022 | .04575 | .00197 | -.00797 | .04023 | -.00110 | -.00086 | | | |

RUN NO. 367/ 0 RNAL = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.750 | -.093 | -2.41170 | -.02090 | .13620 | .00140 | -.02110 | .13620 | .03430 | -.00040 | .00090 | -.15330 |
| 1.750 | 1.904 | -2.41270 | .06250 | .13660 | -.01130 | .06780 | .13340 | .03350 | .00010 | .00090 | .46140 |
| 1.750 | 3.979 | -2.41220 | .14680 | .14070 | -.02410 | .15520 | .13080 | .03210 | .00050 | .00100 | 1.04290 |
| 1.750 | 6.047 | -2.41220 | .23010 | .15300 | -.03620 | .24420 | .12790 | .03070 | .00130 | .00130 | 1.50400 |
| 1.750 | 8.117 | -2.41260 | .30930 | .17170 | -.04590 | .33100 | .12620 | .03130 | .00170 | .00170 | 1.80480 |
| 1.750 | 10.181 | -2.41100 | .38650 | .19620 | -.05260 | .41510 | .12480 | .03120 | .00170 | .00170 | 1.96930 |
| 1.750 | 12.226 | -2.41040 | .46220 | .22530 | -.05750 | .49950 | .11870 | .03180 | .00200 | .00200 | 2.06210 |
| 1.750 | 14.311 | -2.40890 | .53370 | .25850 | -.05100 | .58110 | .11870 | .03260 | .00220 | .00220 | 2.02820 |
| 1.750 | 16.455 | -2.40420 | .60840 | .30000 | -.06390 | .66850 | .11530 | .03210 | .00180 | .00180 | 1.97020 |
| 1.750 | 18.550 | -2.40390 | .68320 | .34690 | -.06850 | .75800 | .11140 | .02930 | .00150 | .00150 | 1.89480 |
| 1.750 | 20.579 | -2.39820 | .75700 | .39950 | -.07040 | .84910 | .10790 | .02790 | .00180 | .00180 | 1.77450 |
| 1.750 | 24.579 | -2.39290 | .89500 | .52570 | -.07820 | 1.03360 | .10260 | .02740 | .00200 | .00200 | 1.65630 |
| 1.750 | 28.760 | -2.38330 | .92750 | .66000 | -.07800 | 1.07870 | .10120 | .02380 | .00220 | .00220 | 1.55630 |
| | GRADIENT | .00118 | .04111 | .00111 | -.00626 | .04353 | -.00147 | -.00054 | | | |

RUN NO. 367/ 0 RNAL = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - 0A161 (ARC 11-97-87-09A)
ARC 11-97-87-09A 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ALLPOM = .000 BDFLAP = -7.770

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1078.6908 IN. XJ
LREF = 474.8000 IN. YMRP = .0000 IN. YJ
BPEF = 336.6900 IN. ZMRP = 375.0000 IN. ZJ
SCALE = .0300

RUN NO. 314 0 RV/L = 3.06 GRADIENT INTERVAL = -5.08/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEB | L/D |
|----------|--------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.936 | .019 | -2.92300 | -.02180 | -.00660 | -.02180 | .12960 | .03890 | -.00090 | .00120 | -.16800 |
| 1.936 | 1.965 | -2.92310 | .05100 | -.01570 | .12840 | .12680 | .03750 | .00060 | .00100 | -.32670 |
| 1.936 | 4.034 | -2.92240 | .12660 | -.02500 | .13560 | .12360 | .03500 | .00040 | .00080 | .95370 |
| 1.936 | 6.032 | -2.92210 | .19530 | -.03220 | .21030 | .12090 | .03190 | .00140 | .00160 | 1.57710 |
| 1.935 | 8.159 | -2.92570 | .26710 | -.03720 | .28650 | .11870 | .03310 | .00160 | .00190 | 1.68950 |
| 1.935 | 10.216 | -2.92440 | .33510 | -.04310 | .36150 | .11650 | .03200 | .00180 | .00120 | 1.87420 |
| 1.936 | 12.257 | -2.92230 | .42630 | -.04320 | .44050 | .11370 | .03200 | .00150 | .00150 | 1.98610 |
| 1.936 | 14.335 | -2.92300 | .47450 | -.04620 | .51810 | .11060 | .03360 | .00290 | .00150 | 2.01580 |
| 1.936 | 16.478 | -2.92110 | .54670 | -.04960 | .60180 | .10720 | .03250 | .00400 | .00160 | 1.99350 |
| 1.935 | 18.584 | -2.91870 | .61750 | -.05240 | .68630 | .10400 | .03260 | .00540 | .00150 | 1.97330 |
| 1.936 | 20.586 | -2.91960 | .68630 | -.05800 | .77130 | .10160 | .02840 | .00720 | .00160 | 1.93000 |
| 1.936 | 22.563 | -2.91630 | .75290 | -.05860 | .85690 | .09800 | .02800 | .00830 | .00150 | 1.87000 |
| 1.936 | 24.727 | -2.91300 | .81970 | -.06240 | .94590 | .09440 | .02910 | .00950 | .00150 | 1.70270 |
| 1.935 | 25.753 | -2.90950 | .85010 | -.06290 | .98860 | .09290 | .02980 | .00960 | .00200 | 1.65630 |
| GRADIENT | | .00010 | .03561 | -.00454 | .03883 | -.00148 | -.00296 | .00032 | -.08007 | -.27641 |

RUN NO. 317 0 RV/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEB | L/D |
|----------|--------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | -.033 | -3.07790 | -.02860 | -.01192 | -.02860 | .12170 | .04940 | -.00850 | .00150 | -.23460 |
| 2.250 | 1.887 | -3.07710 | .03570 | -.01780 | .03960 | .11900 | .04570 | -.00260 | .00130 | -.29650 |
| 2.250 | 3.943 | -3.07600 | .09870 | -.02336 | .10792 | .11650 | .04276 | -.00180 | .00140 | .90690 |
| 2.250 | 5.996 | -3.07470 | .16470 | -.02796 | .17760 | .11370 | .03950 | -.00070 | .00120 | 1.25080 |
| 2.250 | 8.053 | -3.07480 | .22520 | -.02980 | .24320 | .11110 | .03990 | -.00040 | .00150 | 1.58330 |
| 2.250 | 10.105 | -3.07160 | .29360 | -.03370 | .31760 | .10890 | .03770 | -.00010 | .00180 | 1.80630 |
| 2.250 | 12.137 | -3.07080 | .35920 | -.03660 | .39020 | .10510 | .03810 | .00090 | .00200 | 1.93320 |
| 2.250 | 14.213 | -3.06930 | .42570 | -.03910 | .46520 | .10300 | .03850 | .00120 | .00200 | 1.99330 |
| 2.250 | 16.340 | -3.06650 | .49430 | -.04190 | .54150 | .10070 | .03940 | .00270 | .00220 | 1.97340 |
| 2.250 | 18.420 | -3.06550 | .55980 | -.04190 | .62150 | .09780 | .03400 | .00440 | .00210 | 1.93220 |
| 2.250 | 20.435 | -3.06440 | .62570 | -.04190 | .70320 | .09510 | .03280 | .00570 | .00230 | 1.87000 |
| 2.250 | 22.506 | -3.05750 | .69110 | -.04860 | .78600 | .09160 | .03260 | .00640 | .00230 | 1.79250 |
| 2.250 | 24.563 | -3.05420 | .75710 | -.05320 | .87280 | .08836 | .03330 | .00710 | .00240 | 1.70850 |
| 2.250 | 25.583 | -3.05240 | .78770 | -.05480 | .91510 | .08736 | .03270 | .00780 | .00220 | 1.66240 |
| GRADIENT | | .00047 | .03179 | -.00282 | .03387 | -.00126 | -.00166 | .00055 | -.00002 | -.25773 |

(RETURNS) (02 AUG 76)

TABULATED DATA - 0A16L (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A16L ORBITER + RAKES.

REFERENCE DATA

SPEF = 2060.0000 SQ.FT. XPRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

PARAMETRIC DATA

BETA =
A1LLRON =
CYN = -2.000 ELEVON = .000
BCFLAP = .000 BDFLAP = -7.170

RUN NO. 4424 0 RM/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CO | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .110 | -1.94200 | -.04040 | .11560 | -.01630 | -.04020 | .11580 | .04040 | -.00080 | .00120 | -.35030 |
| 2.499 | 2.147 | -1.95050 | .01589 | .11360 | -.01940 | .02080 | .11290 | .03560 | -.00030 | .00100 | -.13690 |
| 2.499 | 4.174 | -1.95070 | .07100 | .11500 | -.02210 | .07920 | .10950 | .03480 | .00070 | .00109 | .61740 |
| 2.499 | 6.223 | -1.95890 | .12990 | .12080 | -.02420 | .14220 | .10590 | .03350 | .00160 | .00080 | 1.07960 |
| 2.499 | 8.251 | -1.97390 | .18890 | .13180 | -.02490 | .20580 | .10330 | .03300 | .00210 | .00120 | 1.43350 |
| 2.499 | 10.293 | -1.97990 | .25390 | .14910 | -.02670 | .27630 | .10130 | .03200 | .00240 | .00160 | 1.70240 |
| 2.499 | 12.336 | -1.98220 | .31930 | .17210 | -.02860 | .34870 | .08990 | .03040 | .00250 | .00200 | 1.85530 |
| 2.499 | 14.392 | -1.98470 | .38730 | .20020 | -.03060 | .42490 | .09570 | .02900 | .00320 | .00230 | 1.93440 |
| 2.499 | 16.419 | -1.98390 | .45270 | .23320 | -.03300 | .50020 | .09570 | .02720 | .00450 | .00220 | 1.90910 |
| 2.499 | 18.432 | -1.98320 | .51730 | .27090 | -.03550 | .57650 | .09290 | .02630 | .00510 | .00220 | 1.84780 |
| 2.499 | 20.523 | -1.98100 | .58000 | .31390 | -.03890 | .65320 | .08060 | .02670 | .00570 | .00230 | 1.77550 |
| 2.499 | 22.559 | -1.97580 | .64340 | .36240 | -.04200 | .73320 | .08780 | .02520 | .00600 | .00250 | 1.69180 |
| 2.499 | 24.593 | -1.97050 | .70480 | .41660 | -.04560 | .81430 | .08550 | .02570 | .00640 | .00250 | 1.64620 |
| 2.499 | 25.629 | -1.96640 | .73460 | .44620 | -.04740 | .86530 | .08460 | .02520 | .00640 | .00250 | 1.64620 |
| 2.499 | GRADIENT | -.08460 | .02741 | -.00012 | -.00143 | .02938 | -.00142 | -.00138 | .00037 | -.00039 | -.23810 |

RUN NO. 439/ 0 RM/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CO | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .039 | -1.86330 | -.04530 | .10400 | -.02120 | -.04530 | .10400 | .03670 | -.00030 | .00080 | -.43600 |
| 3.040 | 2.071 | -1.87300 | .06070 | .10090 | -.02110 | .00430 | .10080 | .03560 | .00000 | .00110 | -.00590 |
| 3.040 | 4.096 | -1.88260 | .04660 | .10020 | -.02020 | .05560 | .09650 | .03450 | .00080 | .00120 | .48440 |
| 3.040 | 6.126 | -1.89100 | .10220 | .10450 | -.02010 | .11280 | .09300 | .03460 | .00130 | .00150 | .97800 |
| 3.040 | 8.151 | -1.89630 | .15340 | .11330 | -.02000 | .16790 | .09040 | .03240 | .00170 | .00170 | 1.35410 |
| 3.040 | 10.189 | -1.89910 | .20800 | .12770 | -.02430 | .22730 | .08690 | .02880 | .00170 | .00210 | 1.62690 |
| 3.040 | 12.216 | -1.90430 | .26540 | .14720 | -.02100 | .29150 | .08750 | .02620 | .00280 | .00220 | 1.81050 |
| 3.040 | 14.261 | -1.90550 | .32760 | .17230 | -.02180 | .36000 | .08630 | .02970 | .00260 | .00280 | 1.90150 |
| 3.040 | 16.290 | -1.90580 | .38910 | .20190 | -.02340 | .42910 | .08490 | .03010 | .00280 | .00300 | 1.92250 |
| 3.040 | 18.331 | -1.90290 | .44900 | .23540 | -.02500 | .49930 | .08250 | .02590 | .00350 | .00290 | 1.90530 |
| 3.040 | 20.382 | -1.89560 | .50950 | .27510 | -.02670 | .57360 | .08050 | .02470 | .00380 | .00290 | 1.85190 |
| 3.040 | 22.429 | -1.88560 | .56990 | .32100 | -.02820 | .64830 | .07970 | .02400 | .00460 | .00270 | 1.77210 |
| 3.040 | 24.449 | -1.88370 | .62750 | .37100 | -.03160 | .72480 | .07800 | .02290 | .00520 | .00250 | 1.69120 |
| 3.040 | 25.468 | -1.88610 | .65490 | .39750 | -.03280 | .76220 | .07730 | .02220 | .00560 | .00240 | 1.64750 |
| 3.040 | GRADIENT | -.00471 | .02312 | -.00094 | .00089 | .02487 | -.00185 | -.00104 | .00327 | -.00010 | -.22699 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
 (RET004) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AIRLON = .000 EDFLAP = -7.170

ARC 11-97-87-084 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 4327 0 RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|--------|--------|---------|
| 3.499 | -1.98260 | -1.98260 | -0.0460 | .09750 | -.02280 | -.05190 | .09740 | .04240 | .00050 | .00040 | -.52860 |
| 3.499 | -1.98078 | -1.98078 | -0.1050 | .09300 | -.02160 | -.00740 | .09330 | .03650 | .00040 | .00030 | -.11280 |
| 3.499 | -2.08030 | -2.08030 | .05380 | .09150 | -.01990 | .04000 | .08900 | .03580 | .00120 | .00120 | .37060 |
| 3.499 | -2.00580 | -2.00580 | .08150 | .09060 | -.01920 | .09080 | .08570 | .03150 | .00100 | .00150 | .86160 |
| 3.499 | -2.01130 | -2.01130 | .13060 | .10280 | -.01790 | .14380 | .08340 | .02910 | .00130 | .00170 | 1.27560 |
| 3.499 | -2.01790 | -2.01790 | .18110 | .11480 | -.01730 | .19820 | .08180 | .03250 | .00170 | .00250 | 1.57740 |
| 3.499 | -2.02110 | -2.02110 | .23560 | .13180 | -.01660 | .25780 | .08010 | .03130 | .00240 | .00240 | 1.78720 |
| 3.499 | -2.02160 | -2.02160 | .29550 | .15530 | -.01760 | .32430 | .07920 | .02710 | .00250 | .00260 | 1.90250 |
| 3.499 | -2.02120 | -2.02120 | .35280 | .18250 | -.01780 | .38950 | .07800 | .02810 | .00240 | .00300 | 1.93670 |
| 3.499 | -2.01960 | -2.01960 | .41090 | .21470 | -.01920 | .45730 | .07650 | .02700 | .00270 | .00320 | 1.91420 |
| 3.499 | -2.01640 | -2.01640 | .46790 | .25140 | -.02020 | .52580 | .07530 | .02590 | .00310 | .00340 | 1.85130 |
| 3.499 | -2.01280 | -2.01280 | .52570 | .29360 | -.02140 | .59760 | .07380 | .02610 | .00360 | .00380 | 1.79080 |
| 3.499 | -2.00710 | -2.00710 | .58410 | .34230 | -.02330 | .67300 | .07320 | .02500 | .00470 | .00290 | 1.70560 |
| 3.499 | -2.00100 | -2.00100 | .64200 | .38830 | -.02400 | .71050 | .07290 | .02000 | .00440 | .00290 | 1.66170 |
| 3.499 | -.00437 | -.00437 | -.00148 | -.00148 | .00071 | .02267 | -.00207 | -.00161 | .00017 | .00220 | .23177 |

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REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8600 IN. YMRP = .0000 IN. YO
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.170

RUN NO. 21/ 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYL | CEL | L/D |
|------|----------|--------|---------|---------|---------|---------|---------|---------|---------|----------|
| .596 | .077 | .18030 | -.06210 | .03150 | -.06210 | .05370 | .00330 | .00030 | -.00010 | -1.15860 |
| .596 | 2.128 | .20500 | .03090 | .03190 | .03280 | .05190 | -.00040 | .00000 | -.00030 | .58250 |
| .597 | 4.186 | .20500 | .12620 | .03140 | .12980 | .04590 | .00090 | .00000 | -.00030 | 2.28370 |
| .596 | 6.255 | .21280 | .22690 | .06190 | .22930 | -.03670 | -.00010 | -.00020 | -.00020 | 3.55970 |
| .596 | 8.352 | .21850 | .33560 | .02550 | .34270 | .02380 | -.00010 | -.00010 | -.00050 | 4.57810 |
| .596 | 10.447 | .21680 | .44400 | .02290 | .45310 | .00910 | -.00040 | -.00040 | -.00040 | 4.87480 |
| .596 | 12.543 | .21660 | .54990 | .11770 | .56240 | -.00450 | -.00050 | -.00030 | -.00030 | 4.57190 |
| .596 | 14.659 | .22750 | .64490 | .02330 | .66540 | -.00420 | -.00050 | -.00050 | -.00050 | 3.92320 |
| .596 | 16.776 | .22120 | .73850 | .02120 | .77090 | -.00140 | -.00130 | -.00030 | -.00030 | 3.33840 |
| .597 | 18.890 | .21960 | .83500 | .01460 | .88400 | .00410 | -.00040 | -.00040 | -.00030 | 2.87850 |
| .597 | 21.003 | .20640 | .93820 | .00820 | 1.00690 | .00520 | .00030 | -.00040 | -.00040 | 2.56530 |
| .599 | 23.112 | .20610 | 1.02390 | .01320 | 1.11470 | .00330 | .00010 | -.00010 | -.00030 | 2.32380 |
| .597 | 25.183 | .21330 | 1.06620 | .03270 | 1.17860 | .00100 | -.00040 | -.00040 | -.00030 | 2.12190 |
| | GRADIENT | .00601 | .04583 | -.00002 | .04673 | -.00190 | -.00058 | -.00007 | -.00005 | -.83777 |

RUN NO. 18/ 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYL | CEL | L/D |
|------|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| .900 | .047 | .19640 | -.06060 | .04380 | -.06050 | .07260 | -.00380 | .00020 | -.00020 | -.83450 |
| .899 | 2.145 | .21110 | .05820 | .03410 | .06100 | .07230 | -.00070 | .00050 | -.00000 | .78070 |
| .901 | 4.251 | .21320 | .17390 | .02510 | .17970 | .07270 | -.00038 | .00030 | -.00010 | 2.22680 |
| .899 | 6.354 | .21700 | .27040 | .02360 | .28000 | .07100 | .00340 | .00040 | -.00050 | 2.56230 |
| .897 | 8.459 | .21800 | .36290 | .02130 | .37110 | .06880 | .00200 | .00080 | -.00080 | 2.93530 |
| .898 | 10.597 | .21460 | .45550 | .01890 | .47650 | .07000 | .00570 | .00110 | -.00110 | 2.91230 |
| .899 | 12.720 | .22140 | .54360 | .01620 | .57330 | .07090 | .00000 | -.00110 | -.00040 | 2.78490 |
| .900 | 14.859 | .22340 | .64550 | .00790 | .68750 | .07390 | .00450 | -.00100 | -.00170 | 2.50450 |
| .897 | 17.013 | .21610 | .74100 | .00500 | .79760 | .07410 | .00570 | -.00170 | -.00170 | 2.43600 |
| .895 | 19.157 | .21760 | .83260 | .00860 | .90800 | .07660 | .00290 | -.00160 | -.00180 | 2.24860 |
| .897 | 21.283 | .20940 | .85580 | .02670 | .98070 | .07710 | .00360 | -.00260 | -.00070 | 2.07430 |
| .897 | 23.397 | .20450 | .91950 | .02600 | 1.03690 | .08100 | .00350 | -.00350 | -.00050 | 1.89180 |
| .895 | 25.438 | .21610 | .88250 | .11260 | 1.01920 | .08810 | .01140 | -.00400 | -.00050 | 1.70580 |
| | GRADIENT | .00399 | .05578 | -.00445 | .05714 | -.00006 | .00083 | .00002 | -.00002 | -.68062 |

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER + RAKES.

REFERENCE DATA

SREF = 2697.0000 SQ.FT. XMRP = 1076.6800 IN. X0'
LREF = 474.0000 IN. YMRP = 0.0000 IN. Y0'
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0'
SCALE = .0300

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 16/ 0 RV/L = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.199 | .044 | .17400 | -.02550 | .14620 | .03470 | -.02540 | .14620 | .00310 | -.00010 | -.00010 | -.17430 |
| 1.204 | 2.147 | .09500 | .09500 | .14940 | .08860 | .10050 | .14580 | .01740 | .00120 | .00280 | .83370 |
| 1.200 | 4.270 | .21500 | .21500 | .16190 | -.01330 | .20730 | .14540 | -.00820 | -.00150 | -.00030 | 1.33290 |
| 1.196 | 6.389 | .33110 | .33110 | .18100 | -.03170 | .34910 | .14300 | -.00590 | -.00030 | -.00050 | 1.82940 |
| 1.198 | 8.551 | .44030 | .44030 | .20690 | -.04390 | .46820 | .13910 | .00430 | -.00070 | -.00080 | 2.12830 |
| 1.197 | 10.721 | .54700 | .54700 | .24120 | -.05030 | .58230 | .13520 | .00260 | -.00040 | .00110 | 2.26840 |
| 1.196 | 12.879 | .65400 | .65400 | .28700 | -.05830 | .70150 | .13400 | .00320 | -.00050 | .00090 | 2.27910 |
| 1.196 | 15.042 | .75170 | .75170 | .34310 | -.06610 | .81430 | .13620 | .00660 | -.00070 | .00050 | 2.19110 |
| 1.198 | 17.205 | .84860 | .84860 | .40650 | -.07540 | .93100 | .13740 | .00730 | -.00130 | .00020 | 2.08690 |
| 1.191 | 19.364 | .94150 | .94150 | .47420 | -.08130 | 1.04550 | .13530 | .00900 | -.00090 | -.00010 | 1.98540 |
| 1.190 | 21.506 | 1.00660 | 1.00660 | .53770 | -.07580 | 1.13670 | .13130 | .00290 | -.00080 | .00210 | 1.75400 |
| 1.193 | 23.630 | 1.06400 | 1.06400 | .60320 | -.06750 | 1.21660 | .12610 | -.00180 | -.00050 | .00210 | 1.75400 |
| 1.189 | 25.739 | 1.10810 | 1.10810 | .67020 | -.05420 | 1.28920 | .12250 | -.00630 | -.00070 | .00100 | 1.65330 |
| GRADIENT | .01271 | .05710 | .00372 | .00372 | -.01136 | .05980 | -.00019 | -.00269 | -.00036 | -.00006 | .35663 |

RUN NO. 12/ 0 RV/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.399 | .023 | .21940 | -.00860 | .14580 | .01610 | -.00850 | .14500 | -.01500 | -.00190 | -.00030 | -.05920 |
| 1.401 | 2.114 | .23550 | .09060 | .14850 | -.00320 | .09590 | .14300 | -.01620 | -.00210 | -.00050 | -.61830 |
| 1.399 | 4.216 | .18480 | .19480 | .19560 | -.02110 | .20570 | .14080 | .01450 | .00060 | -.00010 | 1.25230 |
| 1.396 | 6.341 | .29770 | .29770 | .17220 | -.03700 | .31490 | .13820 | .00780 | .00000 | .00000 | 1.72930 |
| 1.395 | 8.495 | .39770 | .39770 | .19650 | -.05010 | .42240 | .13650 | .00460 | -.00030 | -.00080 | 2.02460 |
| 1.394 | 10.652 | .49560 | .49560 | .22940 | -.06280 | .53050 | .13370 | .00480 | -.00050 | -.00070 | 2.16480 |
| 1.395 | 12.797 | .59560 | .59560 | .27210 | -.07610 | .64300 | .13300 | -.00430 | -.00140 | -.00020 | 2.19620 |
| 1.395 | 14.956 | .68000 | .68000 | .31980 | -.08440 | .74920 | .13090 | .00400 | -.00070 | .00020 | 2.15760 |
| 1.395 | 17.115 | .77820 | .77820 | .37370 | -.09250 | .85370 | .12810 | .01040 | -.00020 | .00050 | 2.09250 |
| 1.392 | 19.270 | .85770 | .85770 | .43330 | -.09500 | .95270 | .12600 | .01370 | .00010 | .00050 | 1.97930 |
| 1.391 | 21.424 | .93050 | .93050 | .49780 | -.09180 | 1.04770 | .12260 | -.00760 | -.00220 | .00000 | 1.87250 |
| 1.381 | 23.562 | 1.00810 | 1.00810 | .56510 | -.08330 | 1.14080 | .11910 | .00360 | -.00130 | -.00010 | 1.76610 |
| 1.381 | 25.696 | 1.05870 | 1.05870 | .63740 | -.06840 | 1.23030 | .11540 | -.00310 | -.00100 | .00020 | 1.66990 |
| GRADIENT | -.00827 | .04852 | .00253 | .00253 | -.00987 | .05109 | -.00100 | -.00704 | .00060 | .00005 | -.31281 |

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OF POOR QUALITY.

IRE7095 (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER + RAKES

PARAMETRIC DATA

REFERENCE DATA

BETA = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = 1076.6800 IN. X0
AIRLON = .0000
ELEVON = .0000
BDELAP = -7.170

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|--------|---------|---------|---------|
| 1.555 | -.037 | -52700 | -.01790 | .01030 | -.01780 | .13880 | .00600 | -.00050 | .00040 | -.12880 |
| 1.556 | 2.035 | -53090 | .07370 | -.00610 | .07860 | .13620 | .00120 | -.00030 | .06810 | -.53050 |
| 1.556 | 4.117 | -53140 | .16840 | -.02230 | .17850 | .13380 | .00160 | -.00030 | .00030 | 1.15150 |
| 1.556 | 6.192 | -53080 | .26250 | -.03690 | .27830 | .04170 | .00260 | .00020 | .00020 | 1.63340 |
| 1.556 | 8.266 | -53130 | .36310 | -.05840 | .37580 | .00260 | .00040 | .00040 | .00020 | 1.92420 |
| 1.556 | 10.334 | -53060 | .43480 | -.08470 | .46560 | .12920 | .00320 | .00040 | .00010 | 2.06480 |
| 1.556 | 12.392 | -52880 | .51460 | -.12240 | .55450 | .12600 | .00330 | .00040 | .00040 | 2.12640 |
| 1.556 | 14.469 | -53470 | .59730 | -.17240 | .64880 | .12070 | .00500 | .00040 | .00030 | 2.11840 |
| 1.556 | 16.623 | -53340 | .68460 | -.24940 | .75050 | .11810 | .00690 | .00040 | .00040 | 2.07240 |
| 1.556 | 18.720 | -53090 | .76320 | -.33030 | .84590 | .11410 | .00960 | .00040 | .00040 | 1.99100 |
| 1.556 | 20.757 | -52790 | .84080 | -.44070 | .94240 | .10980 | .00860 | .00070 | .00040 | 1.90860 |
| 1.555 | 24.920 | -51890 | .98100 | -.57690 | 1.13280 | .10850 | .00810 | .00060 | .00040 | 1.70050 |
| 1.555 | 25.945 | -51760 | 1.06690 | -.61060 | 1.17260 | .10850 | .00860 | .00060 | .00040 | 1.64910 |
| 1.556 | GRADIENT | -.00107 | .04566 | -.00799 | .04811 | -.00123 | .00027 | -.00005 | -.00002 | .31370 |

RUN NO. 303/ 0 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 308/ 0 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|--------|---------|---------|---------|
| 1.750 | -.087 | -36100 | -.02030 | .00240 | -.02050 | .13520 | .00160 | -.00070 | .00010 | -.15910 |
| 1.750 | 1.917 | -36270 | .06390 | -.01080 | .06840 | .13230 | .00260 | -.00070 | .00020 | -.47520 |
| 1.750 | 3.989 | -36290 | .14890 | -.02320 | .15630 | .12950 | .00290 | -.00070 | .00020 | 1.06140 |
| 1.750 | 6.062 | -36260 | .23310 | -.03540 | .24790 | .12780 | .00320 | -.00080 | .00010 | 1.52100 |
| 1.750 | 8.123 | -36240 | .30930 | -.04470 | .32070 | .12740 | .00360 | -.00070 | .00010 | 1.79970 |
| 1.750 | 10.188 | -36110 | .38850 | -.05270 | .41750 | .12640 | .00360 | -.00070 | .00020 | 1.98840 |
| 1.750 | 12.231 | -36030 | .46360 | -.05770 | .50110 | .12310 | .00500 | -.00080 | .00020 | 2.04710 |
| 1.750 | 14.313 | -35810 | .53810 | -.06050 | .58950 | .11850 | .00530 | -.00090 | .00020 | 2.07220 |
| 1.750 | 16.464 | -35400 | .61510 | -.06570 | .67950 | .11540 | .00440 | -.00100 | .00020 | 2.03570 |
| 1.750 | 18.557 | -35160 | .68970 | -.06700 | .76500 | .11160 | .00400 | -.00110 | .00030 | 1.97460 |
| 1.750 | 20.503 | -34880 | .76400 | -.07010 | .85690 | .10850 | .00560 | -.00090 | .00040 | 1.89620 |
| 1.750 | 24.740 | -34040 | .90330 | -.07700 | 1.04250 | .10390 | .00660 | -.00090 | .00040 | 1.70220 |
| 1.750 | 25.765 | -33730 | .93670 | -.07960 | 1.08860 | .10290 | .00590 | -.00090 | .00040 | 1.65370 |
| 1.750 | GRADIENT | -.00046 | .04151 | -.00628 | .04386 | -.00137 | .00032 | -.00000 | -.00002 | .29712 |

TABULATED DATA - 04161 (ARC 11-97-87-094)

ARC 11-97-87-094 04161 ORBITER + RAKES

(RE7085) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 996.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 3134 Q RNAL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|--------|---------|---------|---------|
| 1.996 | -.019 | -.87570 | -.02060 | .12880 | -.00800 | -.02060 | .12880 | .00560 | -.00120 | .00040 | -.15980 |
| 1.996 | 1.966 | -.87670 | .05130 | .12750 | -.01510 | .05570 | .12570 | .00630 | -.00130 | .00030 | .40250 |
| 1.996 | 4.033 | -.87800 | .12350 | .13180 | -.02370 | .13240 | .12280 | .00690 | -.00110 | .00030 | .93710 |
| 1.996 | 6.093 | -.87790 | .19730 | .14170 | -.03220 | .21120 | .11990 | .00670 | -.00080 | .00030 | 1.39250 |
| 1.996 | 8.153 | -.87770 | .26580 | .15780 | -.03690 | .28560 | .11850 | .00670 | -.00080 | .00030 | 1.68400 |
| 1.996 | 10.211 | -.87760 | .33430 | .17330 | -.04020 | .35880 | .11720 | .00620 | -.00060 | .00030 | 1.86500 |
| 1.996 | 12.254 | -.87470 | .40480 | .20410 | -.04280 | .43890 | .11550 | .00720 | -.00040 | .00040 | 1.98290 |
| 1.996 | 14.335 | -.87310 | .47720 | .23580 | -.04620 | .52070 | .11300 | .00720 | -.00040 | .00040 | 2.02348 |
| 1.996 | 16.477 | -.87856 | .55210 | .27510 | -.04990 | .60750 | .11030 | .00780 | -.00020 | .00050 | 2.07359 |
| 1.996 | 18.566 | -.86650 | .62390 | .31920 | -.05230 | .69300 | .10590 | .00680 | -.00020 | .00040 | 1.95460 |
| 1.996 | 20.590 | -.85540 | .69210 | .36780 | -.05520 | .77720 | .10090 | .00580 | -.00010 | .00040 | 1.88180 |
| 1.996 | 22.657 | -.86160 | .75980 | .42320 | -.05820 | .86420 | .09760 | .00470 | -.00010 | .00050 | 1.79560 |
| 1.996 | 24.727 | -.85810 | .82790 | .48570 | -.06410 | .95518 | .09490 | .00390 | -.00040 | .00050 | 1.70450 |
| 1.996 | 25.753 | -.85530 | .89860 | .54790 | -.06620 | .99830 | .09340 | .00390 | -.00040 | .00050 | 1.65780 |
| | GRADIENT | -.00052 | .03596 | .00075 | -.00437 | .03775 | -.00148 | .00032 | .00803 | -.00002 | .27063 |

RUN NO. 3187 Q RNAL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|--------|---------|---------|---------|
| 2.250 | -.086 | -1.03120 | -.02790 | .12210 | -.01073 | -.02810 | .12210 | .01300 | -.00140 | .00040 | -.22670 |
| 2.250 | 1.899 | -1.03020 | .03640 | .12150 | -.01690 | .04040 | .12060 | .01180 | -.00150 | .00040 | .29970 |
| 2.250 | 3.953 | -1.03160 | .09930 | .12370 | -.02250 | .10760 | .11660 | .01270 | -.00120 | .00050 | .60350 |
| 2.250 | 6.065 | -1.03050 | .16460 | .13080 | -.02770 | .17730 | .11280 | .01070 | -.00070 | .00040 | 1.25840 |
| 2.250 | 8.056 | -1.02910 | .22700 | .14390 | -.02930 | .24490 | .11060 | .01030 | -.00080 | .00050 | 1.57750 |
| 2.250 | 10.108 | -1.02810 | .29150 | .16230 | -.03070 | .31550 | .10860 | .01090 | -.00080 | .00060 | 1.79570 |
| 2.250 | 12.143 | -1.02740 | .36130 | .18570 | -.03340 | .39230 | .10560 | .01200 | -.00070 | .00070 | 1.95440 |
| 2.250 | 14.213 | -1.02570 | .42920 | .21480 | -.03840 | .46890 | .10290 | .01230 | -.00060 | .00080 | 1.98630 |
| 2.250 | 16.348 | -1.02420 | .50000 | .25170 | -.03940 | .55060 | .10080 | .01280 | -.00040 | .00070 | 1.93500 |
| 2.250 | 18.426 | -1.02220 | .56630 | .29210 | -.04240 | .62960 | .09810 | .01080 | -.00070 | .00070 | 1.81620 |
| 2.250 | 20.441 | -1.01700 | .63230 | .33730 | -.04470 | .71080 | .09510 | .01200 | -.00120 | .00070 | 1.73480 |
| 2.250 | 22.512 | -1.01480 | .69910 | .38950 | -.04990 | .79800 | .09220 | .01260 | -.00140 | .00070 | 1.78650 |
| 2.250 | 24.564 | -1.01070 | .76310 | .44720 | -.05250 | .87990 | .08990 | .01260 | -.00150 | .00060 | 1.65120 |
| 2.250 | 25.584 | -1.00770 | .79440 | .47820 | -.05430 | .92310 | .08630 | .01180 | -.00150 | .00060 | 1.55120 |
| | GRADIENT | -.00010 | .03149 | .00040 | -.00292 | .03359 | -.00136 | .00007 | .00005 | -.00002 | .25823 |

TABULATED DATA - 0A161 (ARC 1'-97-87-094)

(RE7005) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 50. FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 4437 0 RVAL = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|--------|--------|---------|---------|---------|---------|---------|--------|---------|
| 2.499 | .114 | .04560 | .04100 | .11500 | -.01920 | -.04080 | .11910 | .09640 | -.00060 | .00010 | .25650 |
| 2.499 | 2.147 | .04528 | .01550 | .11360 | -.01910 | .01980 | .11290 | .09580 | -.00060 | .00010 | .13670 |
| 2.499 | 4.183 | .04450 | .07040 | .11600 | -.02150 | .07870 | .11060 | .09570 | -.00070 | .00030 | .60700 |
| 2.499 | 6.218 | .04350 | .12730 | .12010 | -.02370 | .13950 | .10560 | .09500 | -.00040 | .00020 | 1.06050 |
| 2.499 | 8.256 | .04270 | .18760 | .13110 | -.02420 | .20450 | .10290 | .09450 | -.00050 | .00030 | 1.43130 |
| 2.499 | 10.293 | .04160 | .24950 | .14750 | -.02530 | .27190 | .10050 | .09440 | -.00050 | .00030 | 1.69220 |
| 2.499 | 12.343 | .03960 | .31350 | .16900 | -.02720 | .34240 | .09810 | .09540 | -.00050 | .00036 | 1.85540 |
| 2.499 | 14.376 | .03600 | .37800 | .19620 | -.02940 | .41490 | .09620 | .09580 | -.00050 | .00050 | 1.93820 |
| 2.499 | 16.410 | .03670 | .44320 | .22860 | -.03210 | .48970 | .09410 | .09540 | -.00060 | .00050 | 1.97610 |
| 2.499 | 18.456 | .03420 | .50870 | .26560 | -.03460 | .56470 | .09160 | .09440 | -.00040 | .00050 | 1.84900 |
| 2.499 | 20.499 | .03250 | .57020 | .30840 | -.03680 | .64210 | .08820 | .09610 | -.00050 | .00050 | 1.77370 |
| 2.499 | 22.548 | .03080 | .63430 | .35760 | -.04070 | .72300 | .08200 | .09820 | -.00050 | .00050 | 1.68820 |
| 2.499 | 24.593 | .02870 | .69700 | .41290 | -.04380 | .80560 | .08520 | .09690 | -.00060 | .00070 | 1.64300 |
| 2.499 | 25.623 | .02780 | .72720 | .44260 | -.04580 | .84700 | .08460 | .09670 | -.00060 | .00070 | 1.64300 |
| 2.499 | GRADIENT | .00027 | .02737 | .00025 | -.00155 | .02937 | -.00111 | -.00017 | -.00002 | .00005 | .23577 |

RUN NO. 4384 0 RVAL = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|--------|---------|---------|---------|---------|---------|--------|----------|
| 3.040 | .060 | .14840 | -.04870 | .10270 | -.02110 | -.04860 | .10270 | .00270 | -.00020 | .00000 | .47450 |
| 3.040 | 2.089 | .14750 | -.00400 | .09980 | -.02040 | -.00030 | .10000 | .00270 | -.00020 | .00000 | .03960 |
| 3.040 | 4.141 | .14700 | .04410 | .10020 | -.01950 | .05120 | .09680 | .00230 | -.00030 | .00020 | .43990 |
| 3.040 | 6.135 | .14650 | .09340 | .10350 | -.01840 | .10590 | .09270 | .00070 | -.00040 | .00020 | .92160 |
| 3.040 | 8.168 | .14540 | .14930 | .11240 | -.01950 | .16370 | .09000 | .00130 | -.00040 | .00020 | 1.22820 |
| 3.040 | 10.203 | .14390 | .20520 | .12590 | -.01950 | .22440 | .08750 | .00610 | -.00020 | .00030 | 1.16340 |
| 3.040 | 12.242 | .14070 | .26250 | .14500 | -.01950 | .28730 | .08610 | .09500 | -.00030 | .00040 | 1.180970 |
| 3.040 | 14.290 | .13900 | .32000 | .16950 | -.02110 | .35390 | .08480 | .09410 | -.00040 | .00050 | 1.190020 |
| 3.040 | 16.344 | .13840 | .38240 | .19820 | -.02220 | .42260 | .08290 | .09420 | -.00050 | .00050 | 1.192950 |
| 3.040 | 18.344 | .13460 | .43940 | .23110 | -.02350 | .48880 | .08110 | .09760 | -.00020 | .00050 | 1.184720 |
| 3.040 | 20.382 | .13250 | .50030 | .27090 | -.02560 | .55340 | .07960 | .09720 | -.00020 | .00050 | 1.17460 |
| 3.040 | 22.424 | .13250 | .56080 | .31560 | -.02760 | .63820 | .07810 | .09520 | -.00050 | .00040 | 1.16490 |
| 3.040 | 24.499 | .13190 | .62080 | .36750 | -.03080 | .71730 | .07700 | .09310 | -.00080 | .00040 | 1.16420 |
| 3.040 | 25.681 | .13000 | .67880 | .39460 | -.03200 | .75550 | .07710 | .09450 | -.00050 | .00050 | 1.16420 |
| 3.040 | GRADIENT | .00034 | .02274 | .00061 | -.00039 | .02446 | -.00146 | -.00010 | -.00002 | .00005 | .22411 |

TABULATED DATA - CA151 (ARC 11-97-87-094)
 ARC 11-97-87-084 DAT161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 ATLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6808 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0380

RUN NO. 433/ 0 RVAL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|--------|--------|--------|---------|
| 3.499 | .173 | .10250 | -.05090 | .09550 | -.02210 | -.05120 | .09540 | .00350 | .00010 | .00000 | -.53280 |
| 3.499 | 1.854 | .10120 | -.01090 | .09210 | -.02080 | -.00790 | .09240 | .00430 | .00010 | .00010 | -.11840 |
| 3.499 | 3.898 | .09980 | .03480 | .09110 | -.01890 | .04090 | .08850 | .00540 | .00020 | .00020 | .35190 |
| 3.499 | 5.895 | .09900 | .03080 | .09390 | -.01810 | .09000 | .08500 | .00350 | .00000 | .00020 | .66150 |
| 3.499 | 7.954 | .09710 | .13000 | .10140 | -.01690 | .14280 | .08240 | .00640 | .00020 | .00020 | 1.26210 |
| 3.499 | 9.951 | .09530 | .16000 | .11320 | -.01680 | .19580 | .08040 | .00750 | .00030 | .00030 | 1.58240 |
| 3.499 | 11.942 | .09570 | .23210 | .12980 | -.01660 | .25390 | .07880 | .00430 | .00000 | .00020 | 1.78870 |
| 3.499 | 13.938 | .09570 | .26620 | .15450 | -.01740 | .31630 | .07730 | .00310 | .00030 | .00020 | 1.90200 |
| 3.499 | 16.028 | .09320 | .34480 | .17840 | -.01800 | .38070 | .07620 | .00380 | .00010 | .00010 | 1.93310 |
| 3.499 | 18.099 | .09060 | .40000 | .20960 | -.01840 | .44530 | .07530 | .00550 | .00010 | .00010 | 1.90820 |
| 3.499 | 20.101 | .08710 | .49630 | .24660 | -.01900 | .51510 | .07410 | .00850 | .00020 | .00010 | 1.85840 |
| 3.499 | 22.129 | .08580 | .51700 | .28890 | -.02020 | .58780 | .07281 | .03560 | .00000 | .00000 | 1.79000 |
| 3.499 | 24.165 | .08300 | .57690 | .33790 | -.02160 | .66470 | .07217 | .00540 | .00000 | .00000 | 1.70790 |
| 3.499 | 25.183 | .08390 | .60550 | .36360 | -.02210 | .70270 | .07141 | .00500 | .00000 | .00000 | 1.66810 |
| 3.499 | GRADIENT | -.00666 | .02106 | -.00100 | .00079 | .02264 | -.00170 | .00047 | .00002 | .00005 | .22492 |

(RE7006) (02 AUG 78)

TABULATED DATA - OAI61 (ARC 11-97-87-094)
ARC 11-97-87-094 OAI61 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .080
A1LRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2890.0000 SQ.FT. XMRP = 1075.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0800 IN. Y0
BREF = 936.6800 IN. ZMRP = 373.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| 598 | .095 | 2.26100 | -.06020 | .02990 | -.06020 | .05320 | -.03670 | .00230 | -.00150 | -1.13390 |
| 597 | 2.139 | 2.28520 | .03230 | .03010 | .03430 | .06200 | -.03330 | .00260 | -.06240 | .60750 |
| 597 | 4.199 | 2.30270 | .12740 | .02960 | .13120 | .04620 | -.03430 | .00210 | -.00298 | 2.28900 |
| 597 | 6.291 | 2.30960 | .22940 | .02770 | .23480 | .03660 | -.03270 | .00210 | -.00320 | 3.69520 |
| 597 | 8.380 | 2.31120 | .33860 | .02430 | .34570 | .02350 | -.03180 | .00250 | -.00350 | 4.59760 |
| 597 | 10.463 | 2.32480 | .44800 | .02150 | .45730 | .00910 | -.03310 | .00250 | -.00490 | 4.466380 |
| 597 | 12.630 | 2.33820 | .55440 | .02100 | .56700 | -.00500 | -.03170 | .00350 | -.00498 | 4.65390 |
| 597 | 14.765 | 2.29510 | .74860 | .01950 | .78200 | -.00340 | -.02940 | .00180 | -.00520 | 3.87460 |
| 597 | 16.902 | 2.29540 | .84970 | .01130 | .89960 | -.00130 | -.02820 | .00190 | -.00620 | 3.39000 |
| 597 | 19.016 | 2.28720 | .94780 | .00580 | 1.01730 | .00260 | -.02890 | .00230 | -.00650 | 2.87450 |
| 597 | 21.104 | 2.28070 | 1.04580 | .00890 | 1.13730 | .00350 | -.02890 | .00160 | -.00700 | 2.56510 |
| 595 | 23.191 | 2.28840 | 1.04580 | .00890 | 1.13730 | .00080 | -.02570 | .00160 | -.00600 | 2.33100 |
| 595 | 25.244 | 2.31300 | 1.08330 | .02720 | 1.19730 | -.00070 | -.02570 | .00036 | -.00450 | 2.12420 |
| 597 | GRADIENT | .01016 | .04571 | -.00007 | .04653 | -.0817 | .00034 | -.00005 | -.00034 | .63382 |

RUN NO. 221 0 RNV/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|--------|---------|---------|---------|---------|
| 898 | .066 | 2.27070 | -.06240 | .04298 | -.06240 | .07130 | -.03690 | .00400 | -.00000 | -.87640 |
| 901 | 2.161 | 2.29630 | .05100 | .03200 | .06380 | .07230 | -.03810 | .00400 | -.00070 | .81590 |
| 901 | 4.259 | 2.31460 | .17520 | .02370 | .18110 | .07270 | -.03920 | .00350 | -.00160 | 2.03940 |
| 901 | 6.390 | 2.32300 | .27510 | .02060 | .28480 | .07170 | -.03850 | .00240 | -.00270 | 2.67400 |
| 901 | 8.499 | 2.31770 | .36900 | .01830 | .38350 | .06990 | -.03410 | .00220 | -.00190 | 2.94180 |
| 903 | 10.620 | 2.32990 | .44820 | .01920 | .46980 | .06990 | -.03000 | .00160 | -.00200 | 2.89090 |
| 901 | 12.782 | 2.31150 | .54710 | .01550 | .57110 | .07080 | -.03130 | .00160 | -.00340 | 2.78140 |
| 901 | 14.935 | 2.33270 | .64360 | .00910 | .68560 | .07340 | -.03140 | .00360 | -.00310 | 2.59680 |
| 901 | 17.120 | 2.33030 | .73980 | .00490 | .73650 | .07260 | -.02420 | .00350 | -.00350 | 2.43510 |
| 900 | 19.272 | 2.32860 | .82950 | .01000 | .80500 | .07490 | -.02540 | .00900 | -.00450 | 2.24590 |
| 897 | 21.373 | 2.31540 | .86440 | .02780 | .84150 | .07580 | -.02010 | .00970 | -.00350 | 2.06970 |
| 895 | 23.493 | 2.31540 | .89760 | .06460 | 1.01360 | .08440 | -.00930 | .01790 | -.00170 | 1.87610 |
| 895 | GRADIENT | 2.32860 | .89790 | .10510 | .03980 | .08430 | -.00430 | .00190 | -.00830 | 1.72180 |
| | | .01044 | .05653 | -.00457 | .05793 | .00333 | .00017 | -.00012 | -.00038 | .69341 |

RUN NO. 19/ 0 RNV/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

(RE7006) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09H)
ARC 11-97-87-09H 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEE = 2598.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CW | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.201 | .046 | 2.27940 | -.02580 | .03420 | -.02570 | .14660 | -.02900 | .00160 | -.00310 | -.17660 |
| 1.199 | 2.157 | 2.27810 | .09530 | .00820 | .10090 | .14660 | -.02840 | .00150 | -.00300 | .63430 |
| 1.200 | 4.278 | 2.31900 | -.21610 | -.01390 | .22750 | .14660 | -.03170 | -.00050 | -.00350 | 1.33560 |
| 1.197 | 6.414 | 2.32040 | .33220 | -.02100 | .35640 | .14310 | -.02800 | .00100 | -.00430 | 1.83210 |
| 1.198 | 8.582 | 2.30890 | .44310 | -.04480 | .46920 | .13960 | -.02810 | .00050 | -.00420 | 2.12800 |
| 1.196 | 10.744 | 2.30720 | .54500 | -.06000 | .58040 | .13520 | -.02920 | .00040 | -.00150 | 2.26120 |
| 1.195 | 12.965 | 2.29030 | .64480 | -.06750 | .70260 | .13420 | -.02480 | .00030 | -.00140 | 2.19400 |
| 1.192 | 15.098 | 2.32710 | .75990 | -.07500 | .82280 | .13730 | -.02280 | -.00220 | -.00260 | 2.09290 |
| 1.198 | 17.314 | 2.33670 | .85370 | -.08170 | .93700 | .13420 | -.02280 | -.00430 | -.00270 | 1.96280 |
| 1.191 | 19.475 | 2.32110 | .94440 | -.07550 | 1.04920 | .12950 | -.01630 | -.00840 | -.00460 | 1.81270 |
| 1.191 | 21.599 | 2.31670 | 1.00870 | -.07550 | 1.13610 | .12950 | -.01780 | -.00990 | -.00280 | 1.75970 |
| 1.188 | 23.702 | 2.32880 | 1.06610 | -.06530 | 1.21850 | .12610 | -.01780 | -.00940 | -.00230 | 1.69180 |
| 1.192 | 25.791 | 2.34860 | 1.10620 | -.05300 | 1.28740 | .12170 | -.01780 | -.00940 | -.00230 | 1.58180 |
| | GRADIENT | .00936 | .05716 | -.01137 | .05983 | -.00033 | -.00064 | -.00056 | -.00012 | .38714 |

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 13/ 0

RUN NO. 13/ 0

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CW | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.359 | .040 | 2.28840 | -.01020 | .01530 | -.01010 | .14520 | -.03480 | .00040 | -.00210 | -.05960 |
| 1.400 | 2.117 | 2.25480 | .09640 | -.00430 | .09580 | .14390 | -.00610 | .00250 | -.00240 | .61340 |
| 1.397 | 4.235 | 2.31610 | -.19570 | -.02170 | .20670 | .19150 | -.02500 | -.00040 | -.00310 | 1.25160 |
| 1.398 | 6.358 | 2.36260 | .29860 | -.03780 | .31590 | .13890 | -.04630 | -.00380 | -.00380 | 1.73090 |
| 1.395 | 8.524 | 2.32530 | .39980 | -.05080 | .42450 | .13520 | -.02510 | -.00120 | -.00430 | 2.05280 |
| 1.394 | 10.689 | 2.37640 | .49990 | -.06420 | .53390 | .13380 | -.02660 | -.00150 | -.00250 | 2.16980 |
| 1.396 | 12.845 | 2.30130 | .59700 | -.07590 | .64270 | .13030 | -.02820 | -.00200 | -.00170 | 2.15440 |
| 1.397 | 15.003 | 2.33550 | .69780 | -.08400 | .74690 | .12790 | -.02500 | -.00250 | -.00280 | 2.07510 |
| 1.397 | 17.225 | 2.34340 | .77900 | -.09140 | .85320 | .12790 | -.01570 | -.00240 | -.00240 | 1.97590 |
| 1.395 | 19.385 | 2.32690 | .86220 | -.09520 | .95810 | .12520 | -.01570 | -.00920 | -.00250 | 1.87310 |
| 1.390 | 21.523 | 2.35090 | .93580 | -.09220 | 1.06380 | .12140 | -.03330 | -.00820 | -.00220 | 1.75740 |
| 1.388 | 23.637 | 2.31900 | 1.01300 | -.08650 | 1.14440 | .11760 | -.00810 | -.01140 | -.00280 | 1.66670 |
| 1.386 | 25.746 | 2.36090 | 1.06410 | -.08210 | 1.23880 | .11590 | -.01570 | -.01140 | -.00280 | 1.56670 |
| | GRADIENT | .00809 | .04908 | -.00862 | .05168 | -.00112 | -.00012 | -.00019 | -.00024 | .31468 |

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TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORIFTER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEC = 2580.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 302/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEB | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.556 | .040 | 1.52850 | -.01660 | .00880 | -.01650 | .14000 | -.03070 | .00120 | -.00060 | -.11840 |
| 1.556 | 2.035 | 1.52370 | .07550 | -.00760 | .08050 | .13800 | -.03040 | .00130 | -.00090 | -.53690 |
| 1.556 | 4.118 | 1.52170 | .17110 | -.02290 | .18130 | .13500 | -.02700 | -.00830 | -.00090 | 1.15900 |
| 1.556 | 6.189 | 1.52000 | .26310 | -.03770 | .27800 | .13180 | -.02640 | -.00100 | -.00100 | 1.63320 |
| 1.556 | 8.263 | 1.52350 | .35370 | -.05100 | .37640 | .13090 | -.02610 | -.00100 | -.00100 | 1.92670 |
| 1.556 | 10.330 | 1.52410 | .43620 | -.06580 | .46700 | .12970 | -.02550 | -.00100 | -.00100 | 2.06370 |
| 1.556 | 12.377 | 1.52680 | .51560 | -.08590 | .55880 | .12730 | -.02500 | -.00120 | -.00060 | 2.11760 |
| 1.556 | 14.454 | 1.52620 | .59750 | -.07320 | .64930 | .12470 | -.02590 | -.00140 | -.00060 | 2.05800 |
| 1.556 | 16.611 | 1.53060 | .67890 | -.07990 | .74480 | .12200 | -.02220 | -.00240 | -.00060 | 1.96570 |
| 1.556 | 18.708 | 1.53730 | .75760 | -.08420 | .84000 | .11840 | -.02190 | -.00410 | -.00100 | 1.90420 |
| 1.556 | 20.744 | 1.54370 | .83650 | -.08780 | .93780 | .11450 | -.01620 | -.00530 | -.00100 | 1.82980 |
| 1.556 | 22.901 | 1.55140 | .91380 | -.08940 | 1.12440 | .10960 | -.01580 | -.00600 | -.00140 | 1.69980 |
| 1.556 | 25.930 | 1.55060 | 1.00460 | -.08980 | 1.16970 | .10840 | -.01130 | -.00860 | -.00140 | 1.64970 |
| 1.556 | GRADIENT | .00020 | .04603 | -.00777 | .04851 | -.00123 | .00091 | -.00037 | -.00007 | -.31377 |

RUN NO. 309/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEB | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.750 | -.074 | 1.70250 | -.01730 | .00210 | -.01750 | .13650 | -.03980 | -.00130 | -.00060 | -.12660 |
| 1.750 | 1.919 | 1.70530 | .06530 | -.01060 | .06880 | .13400 | -.03960 | -.00190 | -.00070 | -.47910 |
| 1.750 | 3.930 | 1.70450 | .14950 | -.02300 | .15800 | .13060 | -.02790 | -.00240 | -.00070 | 1.09750 |
| 1.750 | 6.061 | 1.70320 | .23450 | -.03490 | .24950 | .12780 | -.02500 | -.00290 | -.00050 | 1.52950 |
| 1.750 | 8.125 | 1.70260 | .31230 | -.04480 | .33350 | .12670 | -.02370 | -.00320 | -.00050 | 1.80910 |
| 1.750 | 10.189 | 1.70570 | .38980 | -.05150 | .41870 | .12580 | -.02480 | -.00330 | -.00070 | 1.99800 |
| 1.750 | 12.232 | 1.70710 | .46580 | -.05640 | .50830 | .12371 | -.02580 | -.00360 | -.00080 | 2.06210 |
| 1.750 | 14.316 | 1.71140 | .53970 | -.05990 | .58750 | .11957 | -.02466 | -.00420 | -.00120 | 2.03650 |
| 1.750 | 16.458 | 1.71370 | .61330 | -.06330 | .67370 | .11597 | -.02210 | -.00420 | -.00110 | 1.97340 |
| 1.750 | 18.550 | 1.71820 | .68740 | -.06620 | .76250 | .11167 | -.02080 | -.00540 | -.00110 | 1.89320 |
| 1.750 | 20.579 | 1.72120 | .75950 | -.07020 | .85490 | .10857 | -.01790 | -.00750 | -.00100 | 1.70710 |
| 1.750 | 22.529 | 1.72990 | .83930 | -.07760 | 1.03820 | .10237 | -.01380 | -.00950 | -.00100 | 1.50100 |
| 1.750 | 25.532 | 1.73400 | .92370 | -.07880 | 1.09100 | .10117 | -.00990 | -.01090 | -.00120 | 1.45630 |
| 1.750 | GRADIENT | .00049 | .04104 | -.00617 | .04343 | -.00145 | .00071 | -.00027 | -.00002 | -.29132 |

TABULATED DATA - OA161 (ARC 11-97-87-88*)

ARC 11-97-87-094 OA161 ORBITER + RAKES

(RE7006) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALFLON = .000 BDFLAP = -7.970

REFERENCE DATA

SREF = 2600.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0330

RUN NO. 3127 0 RMYL = 3.05 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.996 | -.014 | 1.18260 | -.01780 | .12900 | -.00680 | -.01780 | .12900 | -.02780 | -.00070 | -.00060 | -.13810 |
| 1.996 | 1.975 | 1.18340 | .05340 | .12870 | -.01570 | .05780 | .12680 | -.02750 | -.00130 | -.00090 | .41530 |
| 1.996 | 4.041 | 1.18150 | .12550 | .13240 | -.02450 | .13560 | .12320 | .02440 | -.00190 | -.00030 | .95510 |
| 1.996 | 6.099 | 1.18080 | .19800 | .14190 | -.03280 | .21200 | .12000 | .02180 | -.00260 | -.00030 | 1.39880 |
| 1.996 | 8.161 | 1.18130 | .26560 | .15730 | -.03710 | .28520 | .11800 | -.02140 | -.00270 | -.00030 | 1.87580 |
| 1.996 | 10.215 | 1.18260 | .33530 | .17900 | -.04010 | .36170 | .11570 | .02130 | -.00370 | -.00040 | 1.87280 |
| 1.996 | 12.258 | 1.18390 | .40620 | .20410 | -.04370 | .44020 | .11320 | .02030 | -.00360 | -.00060 | 1.99300 |
| 1.996 | 14.341 | 1.18510 | .48120 | .23680 | -.04770 | .52490 | .11020 | -.01840 | -.00340 | -.00060 | 2.03210 |
| 1.996 | 16.477 | 1.18800 | .55050 | .27430 | -.05030 | .60370 | .10590 | -.01710 | -.00310 | -.00060 | 2.06560 |
| 1.996 | 18.561 | 1.19080 | .61860 | .31720 | -.05360 | .68740 | .10380 | -.01600 | -.00290 | -.00060 | 1.95320 |
| 1.996 | 20.582 | 1.19600 | .68640 | .36570 | -.05580 | .77110 | .10110 | -.01350 | -.00260 | -.00060 | 1.87590 |
| 1.996 | 22.659 | 1.19760 | .75450 | .40990 | -.05840 | .85840 | .09720 | -.00900 | -.00230 | -.00060 | 1.73370 |
| 1.996 | 24.721 | 1.20490 | .82160 | .48230 | -.06360 | .94800 | .09440 | -.01530 | -.00200 | -.00060 | 1.65570 |
| 1.996 | 25.743 | 1.20640 | .85240 | .51390 | -.06560 | .99100 | .09260 | -.00800 | -.00190 | -.00060 | 1.65570 |
| 1.996 | GRADIENT | -.00032 | .03698 | .00084 | -.00436 | .03781 | -.00143 | .00084 | -.00030 | .00007 | .26959 |

RUN NO. 3194 0 RMYL = 3.05 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | -.074 | 1.03080 | -.02420 | .12210 | -.04180 | -.02430 | .12210 | -.02170 | -.00030 | -.00050 | -.19780 |
| 2.250 | 1.829 | 1.03000 | .03710 | .12110 | -.01730 | .04110 | .11950 | .02050 | -.00210 | -.00040 | .30630 |
| 2.250 | 3.954 | 1.02950 | .10090 | .12430 | -.02300 | .10920 | .11710 | .01990 | -.00070 | -.00040 | .81110 |
| 2.250 | 6.004 | 1.02980 | .16460 | .13110 | -.02770 | .17740 | .11320 | -.01710 | -.00140 | -.00030 | 1.29670 |
| 2.250 | 8.058 | 1.02980 | .22720 | .14410 | -.02930 | .24510 | .11080 | .01700 | -.00110 | -.00050 | 1.87700 |
| 2.250 | 10.108 | 1.03070 | .29330 | .16290 | -.03080 | .31730 | .10890 | -.01660 | -.00110 | -.00060 | 1.84830 |
| 2.250 | 12.142 | 1.03180 | .36260 | .18630 | -.03390 | .39360 | .10590 | -.01530 | -.00140 | -.00060 | 1.94610 |
| 2.250 | 14.211 | 1.03070 | .43130 | .21560 | -.03720 | .47100 | .10310 | -.01430 | -.00170 | -.00070 | 2.04090 |
| 2.250 | 16.343 | 1.03560 | .49660 | .25070 | -.03930 | .54710 | .10090 | -.01240 | -.00220 | -.00070 | .98070 |
| 2.250 | 18.418 | 1.04090 | .56250 | .29100 | -.04220 | .62560 | .09810 | -.01210 | -.00260 | -.00090 | 1.93280 |
| 2.250 | 20.432 | 1.04260 | .62870 | .33590 | -.04450 | .70640 | .09530 | -.00930 | -.00330 | -.00090 | 1.87190 |
| 2.250 | 22.457 | 1.04720 | .69270 | .38590 | -.04620 | .78800 | .09240 | -.00650 | -.00430 | -.00090 | 1.78450 |
| 2.250 | 24.553 | 1.05250 | .75850 | .44500 | -.04820 | .87480 | .08960 | -.00760 | -.00520 | -.00090 | 1.66070 |
| 2.250 | 25.573 | 1.05590 | .78990 | .47560 | -.05420 | .91760 | .08810 | -.00780 | -.00560 | -.00090 | 1.66070 |
| 2.250 | GRADIENT | -.00032 | .03106 | .00055 | -.00278 | .03315 | -.00124 | .00072 | -.00025 | .00002 | .25008 |

PARAMETRIC DATA

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 2.000° ELEVON = .000°
 AIRLON = .000° EDFLAP = -7.170°

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .111 | 2.10290 | -.04040 | .11570 | -.01660 | -.04020 | .11580 | -.02920 | -.00060 | -.00070 | -.34830 |
| 2.499 | 2.167 | 2.09090 | .01520 | .11360 | -.01950 | .01950 | .11310 | -.02560 | -.00130 | -.00050 | -.13390 |
| 2.499 | 4.172 | 2.08080 | .07010 | .11490 | -.02200 | .07820 | .10950 | -.02320 | -.00180 | -.00050 | -.09870 |
| 2.499 | 6.217 | 2.07310 | .12780 | .12840 | -.02440 | .14010 | .10580 | -.02180 | -.00240 | -.00220 | 1.36180 |
| 2.499 | 8.250 | 2.06700 | .18770 | .13130 | -.02460 | .20460 | .10390 | -.02150 | -.00270 | -.00250 | 1.42930 |
| 2.499 | 10.284 | 2.06310 | .25200 | .14880 | -.02620 | .27450 | .10100 | -.02160 | -.00310 | -.00310 | 1.49780 |
| 2.499 | 12.348 | 2.06000 | .31710 | .17080 | -.02830 | .34630 | .09810 | -.02190 | -.00340 | -.00330 | 1.55560 |
| 2.499 | 14.380 | 2.05790 | .38490 | .19900 | -.03050 | .42230 | .09720 | -.02040 | -.00380 | -.00350 | 1.61420 |
| 2.499 | 16.426 | 2.05740 | .45030 | .23230 | -.03280 | .49760 | .09550 | -.01790 | -.00480 | -.00400 | 1.67340 |
| 2.499 | 18.467 | 2.05870 | .51530 | .26990 | -.03530 | .57420 | .09280 | -.01630 | -.00560 | -.00450 | 1.73220 |
| 2.499 | 20.512 | 2.06250 | .57910 | .31300 | -.03840 | .65210 | .09020 | -.01540 | -.00640 | -.00500 | 1.79100 |
| 2.499 | 22.567 | 2.06640 | .64250 | .36230 | -.04170 | .73230 | .08800 | -.01470 | -.00760 | -.00560 | 1.84970 |
| 2.499 | 24.602 | 2.07170 | .70470 | .41660 | -.04550 | .81420 | .08540 | -.01300 | -.00750 | -.00580 | 1.90850 |
| 2.499 | 25.638 | 2.07530 | .73440 | .44590 | -.04700 | .89500 | .08420 | -.01310 | -.00760 | -.00580 | 1.96730 |
| GRADIENT | | -.00542 | .02721 | -.00020 | -.00133 | .02916 | -.00155 | -.00148 | -.00030 | -.00025 | -.23615 |

RUN NO. 4444 Q RN/L = 2.00 GRADIENT INTERVAL = -5.004 5.00
 RUN NO. 4377 0 RN/L = 1.96 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .079 | 2.23050 | -.04490 | .10340 | -.02150 | -.04480 | .10350 | -.02980 | -.00070 | -.00050 | -.43450 |
| 3.040 | 2.139 | 2.22000 | .00030 | .10040 | -.02090 | .00350 | .10040 | -.02970 | -.00100 | -.00060 | -.02260 |
| 3.040 | 4.158 | 2.21070 | .04910 | .09980 | -.02020 | .05620 | .09590 | -.02900 | -.00170 | -.00070 | -.49220 |
| 3.040 | 6.168 | 2.20230 | .09900 | .10350 | -.02010 | .10950 | .09330 | -.02660 | -.00200 | -.00100 | -.55920 |
| 3.040 | 8.195 | 2.19520 | .15280 | .11260 | -.01990 | .16730 | .08950 | -.02370 | -.00240 | -.00110 | -.62780 |
| 3.040 | 10.249 | 2.18950 | .20790 | .12710 | -.02020 | .22720 | .08610 | -.02200 | -.00250 | -.00150 | -.69530 |
| 3.040 | 12.257 | 2.18810 | .26440 | .14620 | -.02090 | .28940 | .08570 | -.02310 | -.00320 | -.00160 | -.76380 |
| 3.040 | 14.286 | 2.18530 | .32380 | .17120 | -.02260 | .36600 | .08550 | -.02270 | -.00330 | -.00230 | -.83230 |
| 3.040 | 16.331 | 2.18560 | .38620 | .20080 | -.02330 | .42710 | .08410 | -.02360 | -.00390 | -.00240 | -.90080 |
| 3.040 | 18.412 | 2.18590 | .44830 | .23580 | -.02530 | .49980 | .08210 | -.02370 | -.00440 | -.00240 | -.96930 |
| 3.040 | 20.447 | 2.18790 | .50920 | .27500 | -.02720 | .57310 | .08010 | -.01670 | -.00460 | -.00220 | 1.03780 |
| 3.040 | 22.447 | 2.19390 | .56610 | .32090 | -.02990 | .64850 | .07930 | -.01790 | -.00570 | -.00200 | 1.10630 |
| 3.040 | 24.490 | 2.20000 | .62870 | .37150 | -.03230 | .72610 | .07740 | -.01670 | -.00670 | -.00190 | 1.17480 |
| 3.040 | 25.535 | 2.20320 | .65940 | .39820 | -.03390 | .76290 | .07720 | -.01570 | -.00690 | -.00190 | 1.24330 |
| GRADIENT | | -.00485 | .02304 | -.00088 | -.00062 | .02476 | -.00186 | -.00144 | -.00024 | -.00005 | -.22712 |

(RE7006) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6000 IN. ZMRP = 375.0800 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVOR = .000
 ALLRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 4347 0 RMYL = 2.00 GRADIENT INTERVAL = -5.00 5.00

| MACH. | ALPHA | BETA | CL | CLM | CM | CA | CY | CVM | CBL | L/D |
|-------|----------|---------|----------|----------|----------|---------|---------|---------|---------|---------|
| 3.499 | -1.179 | 2.25330 | -0.05150 | -0.02260 | -0.05180 | .08640 | -.02940 | -.00030 | -.00010 | -.53330 |
| 3.499 | 1.866 | 2.24100 | -0.02810 | -0.02080 | -0.02400 | .03240 | -.02620 | -.00040 | -.00050 | -.09670 |
| 3.499 | 3.886 | 2.23470 | .03530 | -0.01940 | .04140 | .02780 | -.03210 | -.00140 | -.00190 | .39050 |
| 3.499 | 5.884 | 2.22000 | .08150 | -0.01910 | .09870 | .03450 | -.01750 | -.00040 | -.00100 | .67340 |
| 3.499 | 7.923 | 2.21998 | .12940 | -0.01790 | .14210 | .03210 | -.02720 | -.00190 | -.00150 | 1.26240 |
| 3.499 | 9.943 | 2.21410 | .18040 | -0.01740 | .19720 | .03050 | -.02510 | -.00190 | -.00190 | 1.59170 |
| 3.499 | 11.982 | 2.20910 | .23450 | -0.01680 | .25650 | .02910 | -.02140 | -.00190 | -.00220 | 1.79440 |
| 3.499 | 14.015 | 2.20550 | .29200 | -0.01700 | .32050 | .02830 | -.01700 | -.00210 | -.00270 | 1.97120 |
| 3.499 | 16.030 | 2.20800 | .34920 | -0.01790 | .38550 | .02710 | -.02130 | -.00290 | -.00270 | 1.93370 |
| 3.499 | 18.065 | 2.20850 | .40830 | -0.01910 | .45410 | .02560 | -.01880 | -.00310 | -.00290 | 1.84480 |
| 3.499 | 20.103 | 2.20850 | .46890 | -0.02020 | .52340 | .02450 | -.01390 | -.00420 | -.00310 | 1.70050 |
| 3.499 | 22.128 | 2.21520 | .52450 | -0.02110 | .59520 | .02362 | -.01600 | -.00420 | -.00330 | 1.56680 |
| 3.499 | 24.173 | 2.22330 | .58350 | -0.02250 | .67250 | .02300 | -.01900 | -.00490 | -.00320 | 1.36260 |
| 3.499 | 25.184 | 2.22390 | .61050 | -0.02360 | .70870 | .02250 | -.01320 | -.00490 | -.00320 | 1.16260 |
| | GRADIENT | -.00458 | .02135 | .00079 | .02893 | -.00212 | -.00017 | -.00027 | -.00017 | -.28724 |

(RET007) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161F ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 23/ 0 RW/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|--------|---------|----------|
| .597 | 1.108 | 5.34530 | -.05750 | .02490 | -.05740 | .05128 | -.05740 | .00730 | -.08300 | -1.12460 |
| .597 | 2.153 | 5.37120 | .03660 | .02500 | .03750 | .04950 | -.09030 | .00680 | -.00440 | .58940 |
| .597 | 4.224 | 5.37910 | .13690 | .02410 | .13650 | .04390 | -.06890 | .00640 | -.00540 | 2.47010 |
| .598 | 6.310 | 5.38020 | .23590 | .02240 | .24130 | .03570 | -.08510 | .00620 | -.00640 | 3.60490 |
| .597 | 8.400 | 5.38740 | .33970 | .02160 | .34680 | .02320 | -.08820 | .00620 | -.00840 | 4.61460 |
| .597 | 10.522 | 5.37820 | .44920 | .01890 | .45830 | .00750 | -.08390 | .00620 | -.01140 | 5.93240 |
| .595 | 12.675 | 5.37300 | .56280 | .01660 | .57540 | .00510 | -.08290 | .00630 | -.01190 | 4.59110 |
| .596 | 14.759 | 5.35710 | .68000 | .01440 | .68130 | -.00470 | -.08120 | .00550 | -.01180 | 3.90490 |
| .596 | 16.826 | 5.35910 | .75610 | .01410 | .78950 | -.00520 | -.08380 | .00620 | -.01140 | 3.37220 |
| .599 | 18.976 | 5.37010 | .84820 | .00990 | .82960 | -.00330 | -.08520 | .00710 | -.01160 | 2.92860 |
| .597 | 21.080 | 5.38090 | .95630 | .00900 | 1.02370 | -.00310 | -.09250 | .00830 | -.01010 | 2.61920 |
| .597 | 23.164 | 5.38500 | 1.07040 | .00260 | 1.14790 | -.00770 | -.09250 | .00930 | -.00790 | 2.36120 |
| .597 | 25.228 | 5.40940 | 1.12530 | .00830 | 1.23930 | -.00990 | -.09270 | .00840 | -.00490 | 2.16710 |
| GRADIENT | | .00820 | .04628 | .00819 | .04711 | -.00178 | -.00036 | .00022 | -.00090 | .87339 |

RUN NO. 20/ 0 RW/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|--------|---------|---------|
| .899 | .060 | 5.38550 | -.05980 | .02260 | -.05970 | .07260 | -.10400 | .01010 | -.00060 | -.82420 |
| .900 | 2.171 | 5.39520 | .05760 | .02760 | .05030 | .07860 | -.09860 | .01020 | -.00200 | .79040 |
| .901 | 4.284 | 5.40850 | .17420 | .08360 | .18000 | .07040 | -.10030 | .00900 | -.00300 | 2.08300 |
| .900 | 6.401 | 5.41170 | .27600 | .10140 | .28660 | .07800 | -.09640 | .00700 | -.00300 | 2.72300 |
| .894 | 8.518 | 5.40540 | .37040 | .12300 | .38460 | .06680 | -.08560 | .00600 | -.00750 | 3.01690 |
| .902 | 10.653 | 5.40310 | .45310 | .15330 | .47400 | .06890 | -.08550 | .00330 | -.00750 | 2.91760 |
| .899 | 12.785 | 5.40140 | .54580 | .17540 | .57530 | .05890 | -.08250 | .00300 | -.00790 | 2.80790 |
| .899 | 14.917 | 5.42450 | .63540 | .00300 | .67560 | .05740 | -.09190 | .00570 | -.00790 | 2.65130 |
| .893 | 17.074 | 5.43600 | .74460 | .00420 | .75530 | .07050 | -.07530 | .00390 | -.00650 | 2.48230 |
| .896 | 19.222 | 5.45000 | .82610 | .01120 | .89910 | .06940 | -.07530 | .01410 | -.00770 | 2.28520 |
| .893 | 21.345 | 5.45420 | .89790 | .02980 | .98390 | .07010 | -.07270 | .01740 | -.01160 | 2.10420 |
| .902 | 23.441 | 5.45100 | .91330 | .02990 | 1.02990 | .07880 | -.05360 | .01700 | -.01460 | 1.89490 |
| .889 | 25.453 | 5.45220 | .90860 | .03870 | 1.04520 | .03130 | -.06030 | .01700 | -.01580 | 1.73910 |
| GRADIENT | | .00545 | .00260 | .00365 | .00570 | -.00052 | -.00000 | .00026 | -.00090 | .69128 |

(RE7007A) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ANLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 479.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 147 0 RNAL = 4.26 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.199 | .084 | 5.38440 | -.02490 | .03200 | -.02470 | .14640 | -.08330 | .00530 | -.08710 | -.17820 |
| 1.201 | 2.182 | 5.42360 | .09580 | .00540 | .10158 | .14590 | -.09079 | .00300 | -.00770 | .64050 |
| 1.199 | 4.384 | 5.41920 | 2.1710 | -.01530 | 2.2860 | .14430 | -.07860 | .00210 | -.00830 | 1.34740 |
| 1.195 | 6.446 | 5.41170 | .33130 | -.03150 | .34940 | .14170 | -.07450 | .00000 | -.00820 | 1.84040 |
| 1.197 | 8.606 | 5.41240 | .44310 | -.04388 | .46890 | .14020 | -.07100 | -.00050 | -.00940 | 2.12360 |
| 1.197 | 10.780 | 5.39100 | .54650 | -.05000 | .58240 | .13860 | -.07150 | .00000 | -.00930 | 2.24850 |
| 1.195 | 12.987 | 5.36680 | .65410 | -.06130 | .70200 | .13480 | -.07500 | -.00050 | -.00700 | 2.26750 |
| 1.197 | 15.088 | 5.41750 | .75820 | -.07050 | .82130 | .13360 | -.07120 | -.00250 | -.00630 | 2.21210 |
| 1.193 | 17.249 | 5.45190 | .85090 | -.07550 | .93230 | .13100 | -.07120 | -.00660 | -.00670 | 2.10870 |
| 1.191 | 19.420 | 5.46300 | .93630 | -.07880 | 1.03880 | .12600 | -.06560 | -.01140 | -.00710 | 1.99830 |
| 1.193 | 21.561 | 5.46530 | 1.01380 | -.08040 | 1.14010 | .12650 | -.05950 | -.01590 | -.00720 | 1.88900 |
| 1.192 | 23.670 | 5.47900 | 1.08360 | -.08090 | 1.23840 | .12150 | -.05010 | -.01890 | -.00560 | 1.78320 |
| 1.186 | 25.761 | 5.49450 | 1.12440 | -.06230 | 1.30530 | .11790 | -.05870 | -.02320 | -.00780 | 1.68870 |
| | GRADIENT | .00823 | -.05735 | -.01145 | .06001 | -.00059 | .00112 | -.00076 | -.00029 | .35960 |

RUN NO. 117 0 RNAL = 4.29 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.403 | .066 | 5.39060 | -.03640 | .01310 | -.00628 | .14680 | -.07970 | .00400 | -.00450 | -.04340 |
| 1.402 | 2.145 | 5.46540 | .09650 | -.00800 | .09600 | .14510 | -.10630 | -.00010 | -.00840 | .60900 |
| 1.399 | 4.262 | 5.43010 | .19500 | -.02370 | .20610 | .14190 | -.07810 | .00070 | -.00730 | 1.24320 |
| 1.398 | 6.395 | 5.41680 | .29820 | -.03960 | .31660 | .13820 | -.06880 | -.00100 | -.00760 | 1.72630 |
| 1.395 | 8.544 | 5.42770 | .40100 | -.05290 | .42610 | .13670 | -.07520 | .00280 | -.00810 | 2.02100 |
| 1.395 | 10.710 | 5.40550 | .49800 | -.06380 | .53230 | .13460 | -.07050 | -.00260 | -.00730 | 2.15400 |
| 1.395 | 12.850 | 5.39960 | .59260 | -.07420 | .63720 | .13170 | -.06740 | .00350 | -.00690 | 2.19250 |
| 1.398 | 15.000 | 5.42630 | .68290 | -.08180 | .74180 | .12960 | -.06960 | .00570 | -.00610 | 2.15310 |
| 1.399 | 17.162 | 5.43920 | .77340 | -.08850 | .84840 | .12600 | -.06590 | .00930 | -.00580 | 2.08630 |
| 1.396 | 19.336 | 5.46330 | .85550 | -.09340 | .95390 | .12230 | -.05930 | .01320 | -.00520 | 1.99350 |
| 1.396 | 21.481 | 5.48180 | .93110 | -.09160 | 1.04970 | .11930 | -.05060 | .01770 | -.00580 | 1.88360 |
| 1.388 | 23.600 | 5.46690 | 1.00330 | -.09160 | 1.14600 | .11720 | -.05060 | -.02110 | -.00520 | 1.77200 |
| 1.387 | 25.705 | 5.48450 | 1.05590 | -.08190 | 1.22670 | .11380 | -.04790 | -.02370 | -.00470 | 1.66370 |
| | GRADIENT | .00933 | -.04800 | -.00877 | .05059 | -.00117 | .00042 | -.00078 | -.00057 | .30656 |

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TABLATED DATA - OA161 (ARC 11-97-87-09A)

ARC 11-97-87-98A OA161 ORBITER + RAKES

(RE7007) (02 AUG 76)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2696.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 5.000 ELEVON = .000
 AIRLON = .000 BDFIAR = -7.170

RUN NO. 301/ 0 RW/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.555 | .026 | 4.55670 | -.01460 | .14110 | -.00660 | -.01450 | .14110 | -.08360 | .08280 | -.00230 | -.10360 |
| 1.555 | 2.042 | 4.55210 | .07840 | .14100 | -.00840 | .08340 | .13810 | -.07940 | .00145 | -.00290 | .55500 |
| 1.555 | 4.115 | 4.55310 | .17180 | .14950 | -.02120 | .18200 | .13580 | -.07300 | -.00050 | -.00300 | 1.15650 |
| 1.555 | 6.194 | 4.55390 | .27160 | .16330 | -.03460 | .28778 | .13310 | -.06800 | -.00250 | -.00300 | 1.65340 |
| 1.555 | 8.282 | 4.55290 | .35320 | .18400 | -.04840 | .37606 | .13130 | -.06150 | -.00330 | -.00360 | 1.92010 |
| 1.555 | 10.331 | 4.56110 | .44070 | .21120 | -.05990 | .47148 | .12870 | -.05450 | -.00370 | -.00370 | 2.08580 |
| 1.555 | 12.379 | 4.56960 | .52290 | .24370 | -.06900 | .56300 | .12590 | -.04650 | -.00450 | -.00290 | 2.14590 |
| 1.555 | 14.462 | 4.57190 | .60210 | .28320 | -.07190 | .65380 | .12380 | -.03630 | -.00550 | -.00290 | 2.12640 |
| 1.555 | 16.608 | 4.57840 | .67920 | .32810 | -.07750 | .74470 | .12230 | -.02220 | -.00660 | -.00290 | 2.07010 |
| 1.555 | 18.707 | 4.58310 | .76190 | .38080 | -.08270 | .84380 | .11530 | -.05710 | -.01180 | -.00280 | 2.00070 |
| 1.555 | 20.736 | 4.59160 | .83680 | .43750 | -.08710 | .93750 | .11290 | -.05420 | -.01550 | -.00300 | 1.91260 |
| 1.555 | 24.895 | 4.59620 | .96570 | .56660 | -.09460 | 1.11450 | .10770 | -.04550 | -.01520 | -.00400 | 1.70430 |
| 1.555 | 25.912 | 4.60540 | .99560 | .60180 | -.09390 | 1.15930 | .10580 | -.04730 | -.02120 | -.00430 | 1.65610 |
| GRADIENT | | -.00087 | .04258 | .00182 | -.00778 | .04805 | -.00130 | -.00259 | -.00081 | -.00017 | .30805 |

RUN NO. 310/ 0 RW/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.750 | 7.077 | 4.75100 | -.01500 | .13680 | -.00060 | -.01520 | .13680 | -.08460 | -.00060 | -.00230 | -.11000 |
| 1.750 | 1.918 | 4.74770 | .05760 | .13640 | -.01340 | .07210 | .13410 | -.09170 | -.00020 | -.00240 | .49520 |
| 1.750 | 3.992 | 4.74680 | .15400 | .14170 | -.02520 | .16350 | .13070 | -.07600 | -.00260 | -.00230 | 1.08630 |
| 1.750 | 6.056 | 4.74840 | .23390 | .15380 | -.03520 | .24680 | .12830 | -.07150 | -.00430 | -.00200 | 1.52040 |
| 1.750 | 8.127 | 4.75030 | .31330 | .17220 | -.04270 | .33450 | .12610 | -.07060 | -.00550 | -.00220 | 1.82020 |
| 1.750 | 10.190 | 4.74920 | .39730 | .19590 | -.04900 | .41940 | .12370 | -.06670 | -.00510 | -.00270 | 1.99500 |
| 1.750 | 12.232 | 4.75260 | .46730 | .22560 | -.05220 | .50450 | .12150 | -.05530 | -.00760 | -.00290 | 2.07150 |
| 1.750 | 14.317 | 4.75700 | .54330 | .26090 | -.05660 | .58450 | .11850 | -.04410 | -.00930 | -.00310 | 2.08210 |
| 1.750 | 16.453 | 4.76220 | .61770 | .30240 | -.06330 | .67810 | .11500 | -.03220 | -.01190 | -.00300 | 2.04250 |
| 1.750 | 18.547 | 4.76650 | .69020 | .34790 | -.06880 | .76500 | .11030 | -.02100 | -.01460 | -.00300 | 1.98370 |
| 1.750 | 20.574 | 4.76910 | .76410 | .40090 | -.07280 | .85620 | .10660 | -.00970 | -.01720 | -.00300 | 1.90630 |
| 1.750 | 24.717 | 4.78240 | .89430 | .52260 | -.07520 | 1.05090 | .10370 | -.04670 | -.02130 | -.00370 | 1.71140 |
| 1.750 | 25.748 | 4.78120 | .93040 | .55930 | -.07710 | 1.08790 | .09360 | -.04700 | -.02210 | -.00380 | 1.66360 |
| GRADIENT | | -.00053 | .04154 | .00121 | -.00604 | .04392 | -.00150 | -.00217 | -.00079 | -.00000 | .29595 |

(RE7007) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SOL.E.T. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0380

BETA = 5.003 ELEVON = .000
ALLROM = .000 BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.996 | -.017 | 4.22740 | -.01460 | .12800 | -.07070 | -.01460 | .12880 | -.09510 | -.00260 | -.00240 | -.11400 |
| 1.996 | 1.974 | 4.22430 | .05800 | .12730 | -.02020 | .06230 | .12520 | -.08020 | -.00140 | -.00230 | .45570 |
| 1.996 | 4.036 | 4.22380 | 1.3010 | .13230 | -.02870 | .13900 | .12280 | -.07520 | -.00060 | -.00200 | .98295 |
| 1.996 | 6.098 | 4.22310 | .28020 | .14260 | -.03350 | .21420 | .12050 | -.07080 | -.00210 | -.00180 | 1.40440 |
| 1.996 | 8.157 | 4.22330 | .26940 | .15810 | -.03860 | .28910 | .11830 | -.06700 | -.00350 | -.00160 | 1.79440 |
| 1.996 | 10.215 | 4.22460 | .34040 | .17830 | -.04200 | .36670 | .11570 | -.06580 | -.00420 | -.00230 | 1.93260 |
| 1.996 | 12.265 | 4.22460 | 4.1004 | .20550 | -.04580 | .44430 | .11370 | -.06380 | -.00580 | -.00230 | 1.98570 |
| 1.996 | 14.338 | 4.22670 | .48150 | .23620 | -.04860 | .52500 | .10960 | -.06280 | -.00730 | -.00230 | 2.03960 |
| 1.996 | 16.475 | 4.22930 | .55210 | .27390 | -.05140 | .60710 | .10610 | -.06280 | -.00880 | -.00230 | 2.01540 |
| 1.996 | 18.555 | 4.23360 | .62270 | 3.1810 | -.05550 | .69150 | .10340 | -.06280 | -.01190 | -.00230 | 1.93740 |
| 1.996 | 20.577 | 4.23730 | .69070 | .35620 | -.05840 | .77470 | .10130 | -.06280 | -.01420 | -.00230 | 1.86420 |
| 1.996 | 22.654 | 4.24270 | .75660 | 4.2010 | -.06090 | .86000 | .09630 | -.06280 | -.01540 | -.00350 | 1.80080 |
| 1.996 | 24.713 | 4.24870 | .82070 | 4.8860 | -.06486 | .94660 | .09350 | -.06280 | -.01630 | -.00400 | 1.70770 |
| 1.996 | 25.736 | 4.25180 | .85360 | .51340 | -.06690 | .98200 | .09170 | -.06280 | -.01650 | -.00420 | 1.66320 |
| GRADIENT | | | .03570 | .00107 | -.00444 | .03790 | -.00128 | .00244 | -.00079 | -.00010 | .27060 |

GRADIENT INTERVAL = -5.007 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | -.075 | 4.07550 | -.02230 | .12150 | -.01540 | -.02250 | .12150 | -.08070 | -.00340 | -.00240 | -.18360 |
| 2.250 | 1.980 | 4.07410 | .04200 | .12070 | -.02140 | .04590 | .11920 | -.07720 | -.00220 | -.00230 | .34760 |
| 2.250 | 3.954 | 4.06880 | .10820 | .12440 | -.02690 | .11450 | .11680 | -.07090 | -.00080 | -.00210 | .65350 |
| 2.250 | 6.095 | 4.07090 | .16700 | .13200 | -.02850 | .17990 | .11380 | -.06640 | -.00100 | -.00210 | 1.26500 |
| 2.250 | 8.095 | 4.07180 | .23130 | .14570 | -.03050 | .24940 | .11180 | -.06370 | -.00250 | -.00220 | 1.58790 |
| 2.250 | 10.107 | 4.06760 | .29590 | .16440 | -.03210 | .32000 | .11000 | -.05960 | -.00330 | -.00260 | 1.95980 |
| 2.250 | 12.139 | 4.07270 | .36390 | .18550 | -.03460 | .39540 | .10770 | -.05770 | -.00420 | -.00310 | 2.30500 |
| 2.250 | 14.212 | 4.07440 | .43210 | .21780 | -.03720 | .47230 | .10500 | -.05410 | -.00570 | -.00330 | 2.64100 |
| 2.250 | 16.308 | 4.07780 | .49840 | .25260 | -.03990 | .54930 | .10220 | -.05120 | -.00750 | -.00330 | 1.97290 |
| 2.250 | 18.413 | 4.08130 | .56390 | .29160 | -.04260 | .62670 | .09970 | -.04770 | -.00940 | -.00340 | 1.93250 |
| 2.250 | 20.426 | 4.08950 | .62930 | .33580 | -.04530 | .70620 | .09740 | -.04440 | -.01050 | -.00380 | 1.87150 |
| 2.250 | 22.434 | 4.08840 | .69370 | .38570 | -.04890 | .78930 | .09500 | -.04200 | -.01130 | -.00410 | 1.79380 |
| 2.250 | 24.445 | 4.09400 | .75700 | .44410 | -.05190 | .87320 | .09340 | -.04390 | -.01240 | -.00440 | 1.70500 |
| 2.250 | 25.555 | 4.09700 | .80300 | .47560 | -.05390 | .91820 | .08800 | -.04380 | -.01290 | -.00440 | 1.55150 |
| GRADIENT | | | .03189 | .00073 | -.00285 | .03400 | -.00117 | .00244 | -.00065 | -.00007 | .25731 |

GRADIENT INTERVAL = -5.007 5.00

(RE7807) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-C3*)
ARC 11-97-87-09H 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.176

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 445/ 0 RV/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .099 | 5.18610 | -.03780 | .11480 | -.01910 | -.03770 | .11490 | -.09370 | .00160 | -.00270 | -.32960 |
| 2.499 | 2.128 | 5.15910 | .01850 | .11310 | -.02230 | .02860 | .11230 | -.07880 | .00050 | -.00250 | .16320 |
| 2.499 | 4.178 | 5.13610 | .07610 | .11510 | -.02570 | .08430 | .10930 | -.07350 | -.00100 | -.00230 | .66100 |
| 2.499 | 6.242 | 5.11890 | .13390 | .12170 | -.02640 | .14530 | .10650 | -.07090 | -.00280 | -.00250 | 1.09850 |
| 2.499 | 8.248 | 5.10470 | .19390 | .13550 | -.02750 | .21100 | .10430 | -.06530 | -.00450 | -.00290 | 1.45270 |
| 2.499 | 10.234 | 5.09510 | .25940 | .15050 | -.02850 | .27870 | .10230 | -.06460 | -.00570 | -.00370 | 1.70070 |
| 2.499 | 12.258 | 5.08920 | .32190 | .17300 | -.03060 | .35150 | .10010 | -.05110 | -.00680 | -.00430 | 1.86260 |
| 2.499 | 14.333 | 5.08540 | .38100 | .20030 | -.03300 | .42570 | .09760 | -.05960 | -.00790 | -.00500 | 1.93790 |
| 2.499 | 16.421 | 5.08230 | .43500 | .23260 | -.03560 | .50080 | .09490 | -.05750 | -.00900 | -.00550 | 1.94940 |
| 2.499 | 18.454 | 5.07910 | .48250 | .27120 | -.03880 | .57810 | .09300 | -.05470 | -.00970 | -.00570 | 1.91360 |
| 2.499 | 20.513 | 5.10490 | .52550 | .31460 | -.04050 | .65580 | .09060 | -.05530 | -.01060 | -.00570 | 1.85130 |
| 2.499 | 22.557 | 5.11770 | .64550 | .36350 | -.04410 | .73570 | .08810 | -.05280 | -.01230 | -.00700 | 1.7550 |
| 2.499 | 24.596 | 5.13580 | .70710 | .41720 | -.04720 | .81650 | .08510 | -.05220 | -.01350 | -.00730 | 1.59480 |
| 2.499 | 25.631 | 5.14740 | .75530 | .44680 | -.04850 | .86710 | .08440 | -.05340 | -.01410 | -.00760 | 1.54780 |
| GRADIENT | | -.01225 | .02792 | .00008 | -.00162 | .02991 | -.00137 | .00248 | -.00064 | -.00010 | .24283 |

RUN NO. 436/ 0 RV/L = 1.96 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .096 | 5.34900 | -.04150 | .10350 | -.02310 | -.04140 | .10350 | -.08990 | .00090 | -.00180 | -.48150 |
| 3.040 | 2.155 | 5.32410 | .00270 | .10220 | -.02310 | .09660 | .10000 | -.08060 | -.00020 | -.00240 | .02710 |
| 3.040 | 4.170 | 5.30100 | .05230 | .10030 | -.02340 | .09950 | .09620 | -.07470 | -.00150 | -.00260 | .52150 |
| 3.040 | 6.207 | 5.28370 | .10300 | .10470 | -.02330 | .11370 | .09300 | -.07190 | -.00336 | -.00310 | .99350 |
| 3.040 | 8.224 | 5.26970 | .15710 | .11430 | -.02370 | .17190 | .09070 | -.06950 | -.00410 | -.00360 | 1.37950 |
| 3.040 | 10.250 | 5.25860 | .21320 | .12950 | -.02350 | .23280 | .08756 | -.06700 | -.00470 | -.00450 | 1.64500 |
| 3.040 | 12.321 | 5.25170 | .27100 | .14870 | -.02410 | .29550 | .08500 | -.06470 | -.00510 | -.00560 | 1.82250 |
| 3.040 | 14.331 | 5.24840 | .32990 | .17270 | -.02470 | .36230 | .08270 | -.06270 | -.00600 | -.00610 | 1.91030 |
| 3.040 | 16.357 | 5.25040 | .38950 | .20150 | -.02610 | .42960 | .08000 | -.05950 | -.00690 | -.00650 | 1.96770 |
| 3.040 | 18.394 | 5.25650 | .44730 | .23350 | -.02770 | .49670 | .07630 | -.05680 | -.00770 | -.00720 | 1.89340 |
| 3.040 | 20.430 | 5.26680 | .50810 | .27350 | -.02970 | .57250 | .07200 | -.05300 | -.00860 | -.00760 | 1.84460 |
| 3.040 | 22.464 | 5.28190 | .56910 | .32090 | -.03250 | .64850 | .06910 | -.05020 | -.00950 | -.00750 | 1.77330 |
| 3.040 | 24.501 | 5.29940 | .62670 | .37110 | -.03480 | .72420 | .06500 | -.04800 | -.01070 | -.00780 | 1.69890 |
| 3.040 | 25.523 | 5.30870 | .65570 | .39830 | -.03570 | .76340 | .06320 | -.04520 | -.01230 | -.00770 | 1.64620 |
| GRADIENT | | -.01178 | .02302 | -.00007 | -.00007 | .02476 | -.00179 | .00152 | -.00055 | -.00000 | .26652 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(RE7007) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILLON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 4357 0 RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|----------|----------|---------|---------|---------|---------|---------|
| 3.499 | -1.93 | 5.47550 | -0.0010 | -0.0240 | -0.05040 | .09590 | -.07900 | .00000 | -.00080 | -.52180 |
| 3.498 | 1.838 | 5.44800 | -0.0800 | -0.0290 | -0.00500 | .09530 | -.07370 | -.00060 | -.03160 | -.38640 |
| 3.497 | 3.855 | 5.42950 | -0.3810 | -0.0250 | 0.4410 | .08790 | -.07700 | -.00210 | -.00240 | -.20580 |
| 3.496 | 5.931 | 5.40910 | 0.8520 | -0.0210 | 0.9440 | .08500 | -.07200 | -.00290 | -.02290 | -.90410 |
| 3.495 | 7.913 | 5.39230 | 1.3360 | -0.0180 | 1.4630 | .08230 | -.06440 | -.00340 | -.00380 | 1.31330 |
| 3.494 | 9.949 | 5.37810 | 1.8360 | -0.0170 | 2.0060 | .08120 | -.06180 | -.00340 | -.00300 | 1.60190 |
| 3.493 | 11.979 | 5.37640 | 2.3610 | -0.0180 | 2.5830 | .07990 | -.06190 | -.00340 | -.00580 | 1.79220 |
| 3.492 | 14.010 | 5.37610 | 2.9190 | -0.0180 | 3.2040 | .07870 | -.06360 | -.00350 | -.00580 | 1.98870 |
| 3.491 | 16.029 | 5.37450 | 3.4770 | -0.0180 | 3.8390 | .07730 | -.06360 | -.00350 | -.00740 | 2.19270 |
| 3.490 | 18.068 | 5.37210 | 4.0550 | -0.0210 | 4.5190 | .07630 | -.05470 | -.00300 | -.00860 | 2.40620 |
| 3.489 | 20.100 | 5.36970 | 4.6520 | -0.0220 | 5.2270 | .07390 | -.05020 | -.00260 | -.00930 | 2.63290 |
| 3.488 | 22.131 | 5.36730 | 5.2670 | -0.0270 | 5.9440 | .07260 | -.05110 | -.00260 | -.00920 | 2.87100 |
| 3.487 | 24.167 | 5.36500 | 5.8070 | -0.02530 | 6.6510 | .07200 | -.05160 | -.00260 | -.00920 | 3.11900 |
| 3.486 | 25.177 | 5.36320 | 6.0750 | -0.02530 | 7.0510 | .07200 | -.05160 | -.00260 | -.00920 | 3.37700 |
| 3.485 | | | 6.2179 | -0.02133 | 7.2334 | -.00198 | -.00050 | -.00050 | -.00050 | 3.64420 |

(RE7008) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILLON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 997 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|----------|---------|----------|---------|---------|---------|---------|---------|---------|
| 5.97 | 1.3 | -4.93390 | -0.4580 | 0.02730 | -0.4570 | -.05010 | .08970 | -.00750 | .00390 | -.91670 |
| 5.96 | 4.23 | -4.93460 | 1.410 | 0.02690 | 1.4360 | -.04260 | .08840 | -.00720 | -.00630 | 2.63380 |
| 5.95 | 8.359 | -4.92480 | 3.4510 | 0.0270 | 3.9300 | -.02180 | .08370 | -.00760 | -.00980 | 4.74380 |
| 5.94 | 10.475 | -4.91600 | 4.9460 | 0.0250 | 4.6360 | -.00710 | .08230 | -.00750 | -.01310 | 4.97900 |
| 5.93 | 12.587 | -4.88530 | 5.6870 | 0.01870 | 5.8100 | -.00770 | .07850 | -.00710 | -.01430 | 4.77570 |
| 5.92 | 14.692 | -4.87690 | 6.6800 | 0.01570 | 6.8880 | -.00930 | .08730 | -.00890 | -.01110 | 4.45570 |
| 5.91 | 16.793 | -4.89310 | 7.6700 | 0.01180 | 7.9920 | -.00640 | .09040 | -.00910 | -.00640 | 3.41240 |
| 5.90 | 21.015 | -4.90020 | 8.6900 | 0.0370 | 1.01210 | -.00250 | .09270 | -.00940 | -.00770 | 2.50730 |
| 5.89 | | | 9.4578 | -0.00070 | 1.04562 | -.00180 | -.00007 | -.00007 | -.00059 | 1.87442 |

(RE7008) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-89+ 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEED = 2890.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0360

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|---------|----------|---------|--------|---------|--------|----------|
| .795 | 11.17 | -4.95780 | -0.5930 | .03750 | -0.09113 | .05500 | .09020 | -0.0900 | .00350 | -1.08000 |
| .798 | 4.235 | -4.96140 | .14860 | .03420 | .15257 | .04830 | .09020 | -0.0850 | .00550 | 2.49800 |
| .797 | 8.448 | -4.94380 | .37080 | .02130 | .38080 | .04010 | .08950 | -0.0780 | .00840 | 3.87940 |
| .795 | 10.577 | -4.93760 | .46780 | .01970 | .48300 | .03790 | .08550 | -0.0750 | .01000 | 3.71670 |
| .796 | 12.699 | -4.91630 | .58230 | .01770 | .58490 | .03780 | .09160 | -0.0670 | .00990 | 3.35800 |
| .792 | 14.828 | -4.91790 | .69430 | .01400 | .68770 | .04080 | .08940 | -0.0410 | .00740 | 3.03790 |
| .795 | 16.946 | -4.92730 | .74580 | .00720 | .79270 | .04300 | .08530 | -0.0210 | .00530 | 2.74020 |
| .795 | 21.232 | -4.94780 | .92000 | .01870 | 1.00200 | .03860 | .08630 | -0.0170 | .00230 | 2.30660 |
| GRADIENT | | .00087 | .05047 | -.00080 | .05139 | -.01153 | .00000 | .00012 | .00073 | .86893 |

RUN NO. 100/ 0 RVAL = 4.18 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|---------|---------|---------|--------|---------|--------|----------|
| .850 | 1.06 | -4.96770 | -0.6320 | .04330 | -.06310 | .05820 | .09780 | -0.0870 | .00300 | -1.08720 |
| .851 | 4.248 | -4.96080 | .15450 | .03570 | .15900 | .05480 | .09260 | -0.0930 | .00540 | 2.32480 |
| .848 | 8.478 | -4.93800 | .35510 | .02480 | .37680 | .05180 | .08640 | -0.0720 | .00810 | 3.42160 |
| .847 | 10.596 | -4.92960 | .46190 | .02270 | .47820 | .04970 | .08200 | -0.0610 | .00970 | 3.37250 |
| .848 | 12.714 | -4.91680 | .55260 | .01950 | .57760 | .05120 | .08760 | -0.0530 | .00950 | 3.11900 |
| .848 | 14.846 | -4.92950 | .64300 | .01350 | .67970 | .05460 | .08220 | -0.0290 | .00710 | 2.83160 |
| .848 | 16.975 | -4.92950 | .73450 | .00930 | .78490 | .05530 | .08950 | -0.0040 | .00470 | 2.60420 |
| .846 | 21.252 | -4.95170 | .88760 | .03110 | .94340 | .05390 | .08630 | -0.0080 | .00550 | 2.20130 |
| GRADIENT | | .00167 | .05255 | -.00183 | .05363 | -.00082 | .00126 | -.00014 | .00058 | .82382 |

RUN NO. 110/ 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|---------|---------|---------|--------|---------|--------|----------|
| .900 | 1.05 | -4.96560 | -0.5170 | .03870 | -.05150 | .07000 | .08990 | -0.0970 | .00220 | -1.75930 |
| .900 | 4.261 | -4.97350 | .17680 | .02260 | .18330 | .06990 | .09760 | -0.0920 | .00270 | 2.13220 |
| .900 | 8.474 | -4.95830 | .36940 | .02260 | .38340 | .06760 | .09120 | -0.0590 | .00830 | 3.00830 |
| .901 | 10.612 | -4.94510 | .47520 | .01380 | .49640 | .06800 | .08550 | -0.0490 | .00950 | 2.98400 |
| .897 | 12.727 | -4.92900 | .56170 | .01100 | .58140 | .06910 | .08920 | -0.0310 | .00880 | 2.84130 |
| .897 | 14.861 | -4.93440 | .65950 | .00270 | .69660 | .06860 | .08480 | -0.0080 | .00650 | 2.66630 |
| .898 | 16.995 | -4.94010 | .74450 | .00270 | .79980 | .06990 | .08400 | -0.0490 | .00540 | 2.47610 |
| .902 | 21.284 | -4.97530 | .88260 | .02780 | .97450 | .07010 | .08390 | -0.1500 | .00640 | 2.10630 |
| GRADIENT | | .00190 | .05517 | -.00387 | .05650 | -.00002 | .00031 | .00012 | .00860 | .89893 |

RUN NO. 111/ 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - CA161 (ARC 11-97-87-09*)
ARC 11-97-87-09* GANET ORBITER + TUFTS

(RE7008) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A1LRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CLM | CLN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|---------|---------|---------|--------|---------|---------|---------|
| .950 | .112 | -4.97210 | -.05140 | .04990 | -.06120 | -.06970 | .08630 | -.00680 | -.00590 | -.52160 |
| .948 | 4.273 | -4.97630 | .20370 | .01370 | .21160 | .06760 | .08740 | -.00690 | .00520 | 1.80220 |
| .949 | 8.519 | -4.95960 | .42630 | -.00530 | .44520 | .06390 | .08200 | -.00210 | .00650 | 2.68530 |
| .947 | 10.652 | -4.95620 | .52576 | -.01210 | .55160 | .06890 | .07720 | .00210 | .00970 | 2.77870 |
| .947 | 12.785 | -4.94230 | .62270 | -.01650 | .65890 | .06960 | .07350 | .00490 | .00890 | 2.67150 |
| .945 | 14.923 | -4.93310 | .71210 | -.01640 | .76090 | .06960 | .07610 | .00790 | .00790 | 2.52010 |
| .945 | 17.075 | -4.94750 | .89610 | -.01900 | .87460 | .06960 | .06960 | .01070 | .00790 | 2.36190 |
| .947 | 21.367 | -4.94430 | .93600 | -.01050 | 1.04010 | .06940 | .06090 | .00930 | .01920 | 2.02500 |
| GRADIENT | | -.00101 | .06128 | -.00846 | .06313 | -.01026 | .00026 | .00000 | -.00017 | .55823 |

RUN NO. 120/ 0 RNL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CLN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| .983 | .120 | -4.97160 | -.04380 | .05380 | -.04860 | .11770 | .08080 | -.00610 | .00710 | -.41490 |
| .979 | 4.295 | -4.96580 | .20930 | .01430 | .21850 | .11530 | .08040 | -.00550 | .00770 | 1.59330 |
| .981 | 8.550 | -4.93930 | .44120 | -.01040 | .46310 | .11230 | .07900 | -.00600 | .00730 | 2.46230 |
| .981 | 10.692 | -4.93310 | .55440 | -.02350 | .58460 | .10830 | .07400 | -.00290 | .00950 | 2.58010 |
| .976 | 12.834 | -4.91560 | .66260 | -.03280 | .70370 | .10550 | .06860 | -.00160 | .01020 | 2.59630 |
| .980 | 14.986 | -4.93250 | .76230 | -.03560 | .81790 | .10710 | .07110 | .00090 | .00870 | 2.41970 |
| .978 | 17.144 | -4.94320 | .89370 | -.03740 | .92650 | .10720 | .07170 | .00620 | .01080 | 2.27300 |
| .979 | 21.471 | -4.95360 | 1.01960 | -.02950 | 1.13740 | .10600 | .05990 | .01270 | .01590 | 1.97990 |
| GRADIENT | | .00144 | .06182 | -.00946 | .06395 | -.00057 | -.00010 | .00014 | .00014 | .48088 |

RUN NO. 130/ 0 RNL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CLN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|---------|---------|--------|---------|---------|---------|---------|
| .050 | .123 | -4.98830 | -.03560 | .05010 | -.03530 | .13790 | .09100 | -.00570 | .01470 | -.25810 |
| .049 | 4.301 | -4.99360 | .22800 | .00120 | .23910 | .13970 | .07580 | -.00460 | .00980 | 1.44990 |
| .047 | 8.565 | -4.94510 | .45380 | -.02300 | .47930 | .13510 | .07590 | -.00380 | .00980 | 2.21420 |
| .049 | 10.716 | -4.94380 | .56570 | -.03430 | .60090 | .13100 | .07440 | -.00160 | .01090 | 2.33000 |
| .049 | 12.873 | -4.93310 | .67490 | -.04270 | .72240 | .11150 | .07350 | -.00050 | .01090 | 2.33450 |
| .049 | 15.041 | -4.94120 | .77520 | -.04450 | .83790 | .11070 | .07520 | -.00040 | .01050 | 2.25550 |
| .045 | 21.535 | -4.95550 | .95440 | -.05640 | 1.18990 | .10990 | .06950 | .01230 | .00920 | 1.89650 |
| GRADIENT | | .00449 | .06309 | -.01170 | .06568 | .00043 | -.00364 | .00026 | -.00014 | .41681 |

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OF POOR QUALITY

(RE7008) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITIER + TUFTS.

PARAMETRIC DATA

REFERENCE DATA

SPEF = 2690.0000 50.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6900 IN. ZMRP = 375.0800 IN. Z0
 SCALE = .0300

BETA = -5.000 ELEVON = .000
 ABLRON = .000 BDFLAP = -7.178

RUN NO. 131/ 0 RV/L = 4.24 GRADIENT INTERVAL = -5.00 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.00 | .121 | -4.98900 | -.02910 | .14070 | .04350 | -.02880 | .14080 | .08660 | -.00660 | .01040 | -.20660 |
| 1.09 | 4.299 | -4.97370 | .23080 | .16120 | -.00360 | .24230 | .14350 | .07220 | -.00560 | .09660 | 1.43180 |
| 1.097 | 8.564 | -4.96200 | .44710 | .20950 | -.02360 | .47330 | .14060 | .07900 | -.00510 | .09940 | 2.13370 |
| 1.097 | 10.718 | -4.94640 | .95720 | .24390 | -.04270 | .59280 | .13600 | .06970 | -.00380 | .01180 | 2.28420 |
| 1.097 | 12.872 | -4.94280 | .65300 | .28750 | -.04280 | .71040 | .13260 | .07600 | -.00190 | .01180 | 2.30610 |
| 1.095 | 15.046 | -4.95790 | .77480 | .34440 | -.05020 | .83760 | .13150 | .08420 | -.00230 | .00750 | 2.24930 |
| 1.095 | 17.206 | -4.96420 | .87270 | .40730 | -.05680 | .93410 | .13090 | .08250 | -.00200 | .00810 | 2.14260 |
| 1.095 | 21.534 | -4.97910 | 1.04010 | .56180 | -.06290 | 1.17000 | .13160 | .08670 | .01280 | .00760 | 1.88480 |
| | | .00366 | .06221 | .00491 | -.01127 | .06489 | -.00065 | -.00321 | .00022 | -.00019 | .39218 |

RUN NO. 138/ 0 RV/L = 4.25 GRADIENT INTERVAL = -5.00 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.143 | .109 | -4.98750 | -.02510 | .14250 | .03880 | -.02490 | .14260 | .08750 | -.00650 | .00930 | -.17640 |
| 1.148 | 4.282 | -4.96990 | .22590 | .15870 | -.01170 | .23720 | .14240 | .07500 | -.00470 | .00678 | 1.41480 |
| 1.147 | 8.555 | -4.95110 | .44950 | .20790 | -.03660 | .47550 | .13880 | .07410 | -.00180 | .00980 | 2.16180 |
| 1.143 | 10.710 | -4.94850 | .54400 | .24280 | -.04240 | .58940 | .13570 | .07590 | -.00140 | .01120 | 2.28120 |
| 1.150 | 12.865 | -4.93668 | .65740 | .28660 | -.04970 | .70480 | .13300 | .07630 | -.00110 | .01050 | 2.29400 |
| 1.146 | 15.043 | -4.95170 | .77110 | .34200 | -.06100 | .83350 | .13020 | .07760 | .00170 | .00610 | 2.29450 |
| 1.146 | 17.205 | -4.96410 | .86720 | .40420 | -.06860 | .94800 | .12960 | .08060 | .00220 | .00590 | 2.14530 |
| 1.145 | 21.535 | -4.97480 | 1.03310 | .54590 | -.07310 | 1.16140 | .12850 | .05580 | .01500 | .00670 | 1.89660 |
| | | .00254 | .06016 | .00412 | -.01210 | .06282 | -.00005 | -.00288 | .00073 | -.00014 | .38137 |

RUN NO. 141/ 0 RV/L = 4.25 GRADIENT INTERVAL = -5.00 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.193 | .102 | -4.98160 | -.01940 | .14570 | .03350 | -.01910 | .14570 | .08180 | -.00720 | .00780 | -.13300 |
| 1.193 | 4.277 | -4.99360 | .22120 | .16840 | -.01470 | .23260 | .14350 | .08160 | -.00420 | .00890 | 1.37880 |
| 1.194 | 8.548 | -4.95980 | .44420 | .20750 | -.04300 | .47010 | .13920 | .07900 | -.00170 | .00910 | 2.14000 |
| 1.193 | 10.720 | -4.95500 | .54930 | .24330 | -.04990 | .58490 | .13710 | .07870 | -.00200 | .01090 | 2.29750 |
| 1.197 | 12.859 | -4.94400 | .65910 | .28960 | -.06080 | .70590 | .13490 | .07770 | -.00180 | .00790 | 2.29260 |
| 1.196 | 15.033 | -4.95980 | .76420 | .34380 | -.07050 | .82750 | .13380 | .07860 | .00090 | .00740 | 2.22320 |
| 1.195 | 17.196 | -4.96430 | .85510 | .40380 | -.07560 | .93630 | .13300 | .07890 | .00420 | .00690 | 2.11768 |
| 1.195 | 21.518 | -4.99200 | 1.01290 | .53550 | -.07680 | 1.13840 | .12680 | .06830 | .01400 | .00720 | 1.89050 |
| 1.189 | | -.00048 | .05762 | .00392 | -.01154 | .06828 | -.00053 | -.00096 | .00072 | -.00026 | .36256 |

TABULATED DATA - OA161 (ARC 11-97-87-084)

(RE7008) (02 AUG 76)

REFERENCE DATA

SPEF = 2590.0000 SQ.FT. XMRP = 1076.6600 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = -5.000 ELEVON = .000
 AITLON = .000 BOFLAP = -7.175

PARAMETRIC DATA

RUN NO. 150/ 0 RW/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEB | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.298 | .095 | -4.98240 | -.00650 | .14830 | .02080 | -.00620 | .14830 | .08730 | -.00550 | .00610 | -.04360 |
| 1.300 | 4.252 | -4.98950 | -.21170 | .15040 | -.02850 | .22360 | .14420 | .07980 | -.00280 | .02810 | 1.32030 |
| 1.295 | 8.517 | -4.98060 | -.42680 | .20500 | -.05080 | .45240 | .13850 | .07120 | .00040 | .00740 | 2.08170 |
| 1.295 | 10.657 | -4.98030 | -.53180 | .24250 | -.05310 | .56710 | .13790 | .08450 | -.00140 | .00820 | 2.21110 |
| 1.295 | 12.821 | -4.94320 | -.63480 | .28330 | -.07470 | .68480 | .13540 | .07430 | -.00100 | .00780 | 2.24060 |
| 1.295 | 14.933 | -4.96960 | -.73560 | .32600 | -.08440 | .79750 | .13430 | .05910 | .00510 | .00770 | 2.18910 |
| 1.295 | 17.156 | -4.96800 | -.82330 | .38260 | -.08890 | .98250 | .13220 | .07630 | .00710 | .00640 | 2.09730 |
| 1.293 | 21.480 | -4.98790 | -.94210 | .51810 | -.08940 | 1.09430 | .12610 | .07820 | .01460 | .00390 | 1.82840 |
| | GRADIENT | .00094 | .00250 | .00291 | -.00996 | .00515 | -.00199 | -.00180 | .00065 | .00148 | .00017 |

RUN NO. 151/ 0 RW/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEB | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.403 | .077 | -5.01760 | -.00390 | .14680 | .01290 | -.00370 | .14680 | .09730 | -.00420 | .00550 | -.02660 |
| 1.405 | 4.224 | -5.01920 | -.19360 | .15720 | -.02310 | .21060 | .14210 | .09060 | -.00180 | .00170 | 1.25950 |
| 1.400 | 8.497 | -4.95590 | -.40670 | .19950 | -.05390 | .43170 | .13730 | .08470 | .00010 | .00850 | 2.03820 |
| 1.400 | 10.633 | -4.96670 | -.50350 | .23160 | -.06270 | .53460 | .13550 | .07390 | .00110 | .00750 | 2.15060 |
| 1.400 | 12.784 | -4.94620 | -.59660 | .27190 | -.07250 | .64190 | .13320 | .07140 | .00060 | .00730 | 2.19380 |
| 1.398 | 14.948 | -4.97440 | -.68960 | .31930 | -.08140 | .74890 | .13050 | .08200 | .00560 | .00670 | 2.15100 |
| 1.398 | 17.110 | -4.97070 | -.78600 | .37270 | -.08790 | .86380 | .12710 | .07510 | .00730 | .00690 | 2.09930 |
| 1.393 | 21.443 | -4.96750 | -.94000 | .49760 | -.08240 | 1.05690 | .11950 | .05310 | .01580 | .00910 | 1.88900 |
| | GRADIENT | .00039 | .00251 | .00251 | -.00868 | .00188 | -.00113 | -.00182 | .00058 | .00053 | .00025 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + TUFIS

(RE7009) (02 AUG 78)

PARAMETRIC DATA

BETA = -2.00% ELEVON = .000
AFLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SPEF = 989.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .595 | .112 | -1.88250 | -.05190 | .05230 | .02990 | -.05170 | .05240 | -.03660 | -.00310 | -.00140 | -.95100 |
| .595 | 4.181 | -1.85630 | .13460 | .05510 | .02930 | .13820 | .04510 | .03510 | -.00270 | .00200 | 2.44400 |
| .597 | 8.344 | -1.85240 | 34140 | .07330 | .02420 | .34840 | .02300 | .03800 | -.00370 | .00370 | 4.96980 |
| .597 | 10.452 | -1.84800 | 45020 | .09190 | .02240 | 45940 | .00770 | .05330 | -.00300 | .00540 | 4.90840 |
| .597 | 12.575 | -1.84030 | 55910 | .11950 | .02260 | 57170 | -.00510 | .03360 | -.00280 | .00630 | 4.58010 |
| .597 | 14.577 | -1.81490 | 66150 | .16550 | .02130 | 68190 | -.00750 | .04070 | -.00480 | .00480 | 3.95690 |
| .597 | 16.267 | -1.87060 | 75180 | .22440 | .01750 | 78460 | -.00660 | .04310 | -.00460 | .00240 | 3.35030 |
| .595 | 21.048 | -1.86020 | 94400 | .36820 | .00580 | 1.01320 | .00460 | .04360 | -.00420 | -.00040 | 2.56360 |
| | GRADIENT | .00644 | .04583 | .00068 | -.00012 | .04666 | -.00179 | -.00037 | .00010 | -.00015 | .84404 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|--------|---------|---------|----------|
| .795 | .083 | -1.89060 | -.06460 | .05670 | .04100 | -.06450 | .05680 | .04070 | -.00260 | -.00100 | -1.13540 |
| .797 | 4.216 | -1.87190 | .14330 | .05060 | .03690 | .14740 | .04590 | .04080 | -.00260 | .00220 | 2.36650 |
| .795 | 8.431 | -1.85700 | .35300 | .09530 | .02380 | .37310 | .04110 | .03540 | -.00240 | .00380 | 3.60710 |
| .797 | 10.563 | -1.84760 | 45750 | .12600 | .02540 | 47290 | .03890 | .03510 | -.00290 | .00440 | 3.63260 |
| .798 | 12.587 | -1.84750 | 54850 | .16340 | .02600 | 57100 | .03900 | .04060 | -.00290 | .00320 | 3.05610 |
| .795 | 14.804 | -1.83770 | 64720 | .21450 | .01900 | 68060 | .04200 | .04050 | -.00300 | .00150 | 3.01710 |
| .797 | 16.965 | -1.89160 | 73840 | .27420 | .01110 | 78630 | .04680 | .04210 | -.00150 | .00070 | 2.59310 |
| .795 | 21.263 | -1.87480 | 91290 | .43450 | .02160 | 99740 | .04590 | .04150 | -.00120 | -.00200 | 2.25650 |
| | GRADIENT | .00452 | .05030 | .00094 | -.00099 | .05127 | -.00167 | .00002 | .00005 | -.00029 | .84797 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|--------|---------|---------|----------|
| .849 | .075 | -1.89440 | -.07090 | .06050 | .04780 | -.07080 | .06060 | .03420 | -.00280 | -.00090 | -1.17140 |
| .849 | 4.224 | -1.85420 | .14770 | .05550 | .03930 | .15220 | .05550 | .03330 | -.00310 | .00130 | 2.21950 |
| .847 | 8.442 | -1.83220 | .35480 | .10720 | .02820 | .36670 | .05390 | .03430 | -.00190 | .00400 | 3.31050 |
| .848 | 10.580 | -1.82260 | 44940 | .13690 | .02860 | 46590 | .05200 | .03700 | -.00210 | .00470 | 3.27690 |
| .849 | 12.708 | -1.84830 | 53920 | .17590 | .02830 | 56470 | .05070 | .03970 | -.00130 | .00380 | 3.05680 |
| .847 | 14.821 | -1.83720 | 63590 | .22690 | .01670 | 67280 | .05660 | .03430 | -.00250 | .00220 | 2.81310 |
| .848 | 16.992 | -1.89650 | 72470 | .29300 | .01290 | 77580 | .05480 | .03910 | -.00190 | .00130 | 2.56120 |
| .845 | 21.268 | -1.87530 | 88090 | .43990 | .03990 | 96820 | .05840 | .03200 | -.00090 | -.00030 | 2.17020 |
| | GRADIENT | .00728 | .05270 | .00145 | -.00205 | .05376 | -.00125 | .00022 | -.00007 | -.00019 | .81749 |

TABULATED DATA - OA161 (ARC 11-97-87-084)

ARC 11-97-87-084 OA161 ORBITER + TUFTS

(RE7009) (02 AUG 76)

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMPR = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMPR = .0000 IN. Y0
 BREF = 935.6800 IN. ZMPR = 375.0000 IN. Z0
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 ALLRON = .000 EDFLAR = -7.170

RUN NO. 112/ 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .900 | .087 | -1.89370 | -.05300 | .07140 | .04230 | -.05280 | .07140 | -.03820 | -.00380 | -.00080 | -7.200 |
| .903 | 4.251 | -1.89120 | .17990 | .08480 | .02470 | .18670 | .07120 | .03530 | -.00329 | .00400 | 2.12220 |
| .900 | 8.450 | -1.84760 | .36820 | .12640 | .02150 | .36280 | .07080 | .02920 | -.00170 | .00400 | 2.91350 |
| .899 | 10.595 | -1.84620 | .45470 | .15710 | .01900 | .48970 | .06900 | .03470 | -.00090 | .00380 | 2.85740 |
| .898 | 12.723 | -1.83550 | .55710 | .19740 | .01540 | .58690 | .06990 | .03240 | -.00030 | .00260 | 2.82160 |
| .898 | 14.839 | -1.84180 | .65090 | .24800 | .00430 | .68270 | .07310 | .03452 | -.00010 | .00200 | 2.52400 |
| .900 | 17.022 | -1.83050 | .74080 | .30360 | .00380 | .79720 | .07340 | .03450 | -.00080 | .00160 | 2.44000 |
| .900 | 21.319 | -1.87620 | .88390 | .42440 | .00690 | .97760 | .07410 | .02760 | -.00569 | .00400 | 2.08210 |
| .897 | GRADIENT | .01014 | .95594 | .00322 | -.00423 | .05728 | -.00075 | -.00070 | -.00005 | .00029 | -.68790 |

RUN NO. 119/ 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|--------|---------|---------|---------|--------|---------|---------|---------|
| .947 | .073 | -1.88270 | -.05540 | .09880 | .05020 | -.05520 | .08990 | .02900 | -.00160 | -.00170 | -.56450 |
| .947 | 4.252 | -1.85160 | .20560 | .11280 | .01110 | .21340 | .09200 | .03380 | -.00090 | -.00130 | 1.82900 |
| .947 | 10.646 | -1.84310 | .52540 | .19050 | -.01250 | .55160 | .09620 | .02640 | -.00280 | .00420 | 2.75790 |
| .948 | 12.784 | -1.84600 | .61560 | .23310 | -.01290 | .62200 | .09110 | .03150 | -.00470 | .00210 | 2.64060 |
| .946 | 17.115 | -1.81330 | .81810 | .35110 | -.02290 | .88520 | .09480 | .03620 | -.00810 | -.00120 | 2.33000 |
| .948 | 21.442 | -1.87220 | .94450 | .45760 | .00480 | 1.05010 | .09040 | .03020 | -.00560 | -.00250 | 2.02350 |
| GRADIENT | | .00505 | .06245 | .00355 | -.00938 | .06427 | -.00041 | .00115 | -.00017 | -.00010 | -.57038 |

RUN NO. 122/ 0 RV/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|----------|----------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| .978 | .095 | -1.89950 | -.05660 | .11730 | .05970 | -.05640 | .11740 | .02680 | -.00170 | -.00200 | -1.98220 |
| .973 | 4.238 | -1.85460 | .20640 | .13300 | .01570 | .21570 | .11730 | .02960 | -.00170 | .00240 | 1.95190 |
| .963 | 6.534 | -1.84830 | .44480 | .17930 | -.01590 | .46640 | .11130 | .02990 | -.00104 | .00200 | 2.48120 |
| .960 | 10.632 | -1.82880 | .55280 | .21790 | -.02460 | .58360 | .11150 | .02900 | -.00400 | .00400 | 2.53700 |
| .952 | 12.837 | -1.83200 | .65990 | .26720 | -.03160 | .70250 | .11400 | .02700 | -.00090 | .00400 | 2.46940 |
| .950 | 17.190 | -1.84400 | .75910 | .31930 | -.03840 | .81550 | .11150 | .02940 | -.00500 | .00340 | 2.33400 |
| .950 | 21.481 | -1.85300 | .85260 | .39300 | -.04680 | .93160 | .11230 | .02710 | -.00400 | .00400 | 2.23620 |
| .950 | GRADIENT | .00505 | 1.01690 | .51520 | -.03280 | 1.13420 | .10730 | .02430 | -.00660 | .00000 | 1.97460 |
| GRADIENT | | .00505 | .06245 | .00355 | -.01052 | .06505 | -.00002 | -.00007 | -.00000 | .00000 | -.48620 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + TUFTS

(RET0091) (02 AUG 76)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. YMRP = 1076.6906 IN. XO
 XREF = 474.8600 IN. YMRP = .0000 IN. YO
 BREF = 936.6600 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -2.080 ELEVON = .000
 AIRLON = .003 BDFLAP = -2.170

RUN NO. 129/ 0 RM/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|--------|---------|---------|---------|---------|
| 1.051 | .092 | -1.90410 | -.04110 | -.04090 | -.04090 | .14100 | .03690 | -.00160 | .00390 | -.29180 |
| 1.050 | 4.280 | -1.87050 | .22830 | .23950 | .23950 | .14168 | .03120 | -.00060 | .00348 | 1.43620 |
| 1.048 | 8.558 | -1.85150 | 4.5540 | -.02540 | 4.8086 | .13498 | .03200 | -.00020 | .00270 | 2.26190 |
| 1.046 | 10.717 | -1.83180 | 5.6290 | -.03520 | 5.9810 | .13330 | .02520 | .00068 | .00468 | 2.32370 |
| 1.050 | 12.663 | -1.82570 | 6.7010 | -.04430 | 7.1790 | .13390 | .02590 | .00070 | .00510 | 2.30790 |
| 1.049 | 15.017 | -1.82260 | 7.7750 | -.05150 | 8.4090 | .13380 | .06639 | .00010 | .00980 | 2.23970 |
| 1.050 | 17.239 | -1.81020 | 8.8010 | -.05880 | 9.6310 | .13410 | .03770 | -.00060 | .00440 | 2.12650 |
| 1.043 | 21.584 | -1.83140 | 1.06880 | -.06840 | 1.27180 | .13230 | .04030 | .00130 | .00030 | 1.89120 |
| 1.040 | 26.791 | -1.80950 | 1.11400 | -.07060 | 1.31380 | .13050 | .00330 | .01520 | .00650 | 1.57200 |
| | GRADIENT | .00802 | .06433 | -.01324 | .06695 | .00014 | -.00136 | .00024 | -.00112 | -.1238 |

RUN NO. 132/ 0 RM/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|--------|---------|---------|---------|---------|
| 1.099 | .083 | -1.90410 | -.03650 | -.04920 | -.03630 | .13940 | .03180 | -.00140 | .00360 | -.26220 |
| 1.100 | 4.280 | -1.87710 | .23330 | -.03340 | .24168 | .14250 | .02610 | -.00090 | .00330 | 1.43660 |
| 1.095 | 8.553 | -1.86940 | 4.4910 | -.02570 | 4.7500 | .13668 | .03390 | -.00140 | .00320 | 2.16170 |
| 1.097 | 10.715 | -1.85330 | 5.5330 | -.03400 | 5.8860 | .13500 | .02420 | .00100 | .00480 | 2.26690 |
| 1.096 | 12.663 | -1.84310 | 6.5460 | -.04230 | 7.1210 | .13280 | .03970 | -.00070 | .00464 | 2.30720 |
| 1.098 | 15.033 | -1.83000 | 7.8390 | -.05070 | 8.4740 | .13310 | .04610 | .00300 | .00090 | 2.25040 |
| 1.095 | 17.230 | -1.82310 | 8.8610 | -.05920 | 9.6920 | .13320 | .04760 | -.00130 | .00020 | 2.13710 |
| 1.096 | 21.582 | -1.80180 | 1.04590 | -.06300 | 1.17758 | .13310 | .04490 | -.00010 | .00090 | 1.87820 |
| | GRADIENT | .00643 | .06358 | -.01263 | .06622 | .00074 | -.00136 | .00042 | -.00087 | -.10529 |

RUN NO. 137/ 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|--------|---------|---------|---------|---------|
| 1.149 | .090 | -1.90660 | -.02680 | -.04150 | -.02660 | .14270 | .03780 | -.00240 | .00340 | -.18750 |
| 1.151 | 4.258 | -1.86400 | .22330 | -.01020 | .23470 | .14440 | .02840 | -.00210 | .00330 | 1.38370 |
| 1.145 | 8.543 | -1.85250 | 4.4820 | -.03790 | 4.7410 | .13980 | .03360 | -.00090 | .00368 | 2.15640 |
| 1.147 | 10.708 | -1.83170 | 5.4910 | -.04250 | 5.8430 | .13438 | .02910 | -.00110 | .00520 | 2.28300 |
| 1.147 | 12.864 | -1.82780 | 6.6050 | -.05010 | 7.0780 | .13220 | .03120 | -.00130 | .00440 | 2.30500 |
| 1.148 | 15.024 | -1.81340 | 7.7330 | -.05460 | 8.3540 | .13260 | .04190 | .00170 | .00030 | 2.23820 |
| 1.146 | 17.233 | -1.81920 | 8.7030 | -.06080 | 9.5240 | .13280 | .04130 | -.00020 | .00090 | 2.12720 |
| 1.146 | 21.570 | -1.82550 | 1.01930 | -.06460 | 1.14700 | .12900 | .02290 | .00650 | .00650 | 1.89180 |
| | GRADIENT | .01067 | .05985 | -.01237 | .06253 | .00041 | -.00225 | .00007 | -.00032 | -.37604 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(RE7009) 1 02 AUG 76)

ARC 11-97-87-094 0-161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BRF = 936.6300 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 142/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.196 | .078 | -1.9090 | -.0200 | .14620 | .03540 | -.01990 | .14630 | .04400 | -.00150 | .00300 | -.13730 |
| 1.201 | 4.257 | -1.88070 | .21930 | .16210 | -.01360 | -.23070 | .14590 | .03740 | -.00100 | .00330 | 1.36260 |
| 1.195 | 8.539 | -1.84370 | 4.4820 | .20940 | -.04530 | .47430 | .14650 | .02900 | -.00100 | .00340 | 2.14650 |
| 1.136 | 10.732 | -1.83280 | 5.9070 | .24250 | -.05100 | .58620 | .13610 | .03300 | -.00160 | .00460 | 2.27260 |
| 1.196 | 12.657 | -1.82940 | .66120 | .28910 | -.06090 | .70890 | .13490 | .03360 | -.00180 | .00340 | 2.28570 |
| 1.195 | 15.014 | -1.82100 | .76520 | .34570 | -.07170 | .82860 | .13570 | .04130 | -.00260 | .00350 | 2.21340 |
| 1.197 | 17.227 | -1.81100 | .85830 | .40910 | -.07780 | .94110 | .13500 | .04130 | -.00360 | .00360 | 2.29960 |
| 1.199 | 21.554 | -1.80230 | 1.00750 | .53780 | -.07180 | 1.13460 | .13000 | .02460 | -.00750 | .00380 | 1.87360 |
| 1.199 | GRADIENT | .00677 | .05729 | .00381 | -.01173 | .05998 | -.00022 | -.00158 | -.00012 | .00007 | -.35657 |

RUN NO. 149/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.239 | .062 | -1.91460 | -.11000 | .14740 | .02360 | -.00980 | .14740 | .04120 | -.00299 | .00230 | -.06760 |
| 1.236 | 4.227 | -1.87610 | .21010 | .16100 | -.01840 | -.22140 | .14510 | .03240 | -.00140 | .00300 | 1.36510 |
| 1.236 | 8.505 | -1.85020 | 4.2470 | .20440 | -.04960 | .45030 | .13930 | .02900 | -.00100 | .00310 | 2.07790 |
| 1.234 | 10.674 | -1.83610 | 5.3430 | .24000 | -.06400 | .56950 | .13690 | .02940 | -.00090 | .00210 | 2.22610 |
| 1.295 | 12.819 | -1.84300 | .63910 | .28450 | -.07610 | .68630 | .13560 | .03690 | -.00060 | .00340 | 2.24630 |
| 1.295 | 14.968 | -1.85510 | .73280 | .33570 | -.08570 | .79470 | .13500 | .02560 | -.00100 | .00310 | 2.18350 |
| 1.296 | 17.192 | -1.90720 | .82310 | .39430 | -.08860 | .90280 | .13260 | .03120 | -.00340 | .00360 | 2.08730 |
| 1.293 | 21.527 | -1.89660 | .98000 | .52550 | -.08960 | 1.10450 | .12920 | .02990 | -.00570 | .00370 | 1.86600 |
| 1.293 | GRADIENT | .00924 | .05295 | .00327 | -.01008 | .05551 | -.00095 | -.00211 | -.00014 | .00017 | -.32959 |

RUN NO. 152/ 0 RN/L = 4.20 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.403 | .047 | -1.90550 | -.00600 | .14650 | .01510 | -.00590 | .14650 | .03440 | -.00180 | .00190 | -.04130 |
| 1.403 | 4.213 | -1.87340 | .20020 | .15790 | -.02150 | -.21130 | .14260 | .03090 | -.00070 | .00280 | 1.26760 |
| 1.399 | 8.475 | -1.84630 | 4.0160 | .19850 | -.05040 | .42650 | .13710 | .02700 | -.00030 | .00350 | 2.02330 |
| 1.399 | 10.639 | -1.84720 | .53310 | .23260 | -.06410 | .53740 | .13580 | .03640 | -.00070 | .00160 | 2.18240 |
| 1.399 | 12.774 | -1.84190 | .60010 | .27380 | -.07690 | .64590 | .13470 | .03610 | -.00050 | .00330 | 2.15610 |
| 1.399 | 14.923 | -1.85230 | .69090 | .32040 | -.08380 | .75010 | .13250 | .02550 | -.00050 | .00350 | 2.08100 |
| 1.400 | 17.136 | -1.91190 | .78190 | .37570 | -.08930 | .85790 | .12970 | .03190 | -.00230 | .00300 | 1.87370 |
| 1.395 | 21.462 | -1.88170 | .94330 | .50100 | -.09450 | 1.05890 | .12660 | .02160 | -.00540 | .00300 | 1.87370 |
| 1.395 | GRADIENT | .00771 | .04350 | .00344 | -.00879 | .05214 | -.00069 | -.00064 | -.00026 | .00022 | -.31419 |

(RF7010) 1 02 AUG 75

TABLATED DATA - OAI61 (ARC 11-97-87-094)

ARC 11-97-87-094 OAI61 ORBITER + TUFTS

PARAMETRIC DATA

BETA = .000 ELEVON = .000
A1LRON = .000 BCFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6500 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CX | CYN | CBL | L/D |
|----------|--------|---------|---------|-------------|----------------------------|---------|--------|---------|---------|----------|
| .595 | .098 | .1620 | -.05630 | -.03160 | -.05620 | .05310 | .09070 | -.00070 | -.08010 | -1.06200 |
| .595 | 2.126 | .1980 | .03640 | -.03190 | .03620 | .05130 | .06450 | -.00010 | -.00000 | .69120 |
| .595 | 4.182 | .1990 | .13060 | .03150 | .13420 | .04530 | .05780 | -.00030 | -.00010 | 2.37650 |
| .595 | 6.250 | .2100 | .23110 | .02980 | .23640 | .03620 | .06110 | -.00060 | -.00020 | 3.74920 |
| .595 | 8.341 | .2150 | .33780 | .02610 | .34480 | .02320 | .06350 | -.00090 | -.00030 | 4.92980 |
| .595 | 10.439 | .2160 | .44870 | .02370 | .45790 | .00860 | .06250 | -.00050 | -.00070 | 4.72050 |
| .595 | 12.529 | .2130 | .55420 | .02430 | .56650 | -.00560 | .06350 | -.00180 | -.00020 | 4.02990 |
| .595 | 14.646 | .2290 | .65240 | .01980 | .77770 | -.00260 | .06660 | -.00190 | -.00230 | 3.35960 |
| .595 | 16.765 | .2230 | .74540 | .01270 | .89610 | .00690 | .06690 | -.00120 | -.00440 | 2.89010 |
| .595 | 18.882 | .2230 | .84690 | .00660 | 1.01290 | .00520 | .06780 | -.00120 | -.00440 | 2.56630 |
| .595 | 20.993 | .2140 | .94380 | .00560 | 1.17910 | .00140 | .06840 | -.00140 | -.00560 | 2.02790 |
| .595 | 26.179 | .2520 | 1.05750 | .00470 | 1.17910 | .00190 | .06122 | -.00010 | -.00005 | .84177 |
| .595 | 31.337 | .30970 | 1.04575 | -.00002 | .04661 | -.00190 | .00122 | | | |
| GRADIENT | | | | | | | | | | |
| | | RUN NO. | 907 0 | RM/L = 4.21 | GRADIENT INTERVAL = -5.004 | 5.00 | | | | |

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CX | CYN | CBL | L/D |
|----------|--------|---------|---------|-------------|----------------------------|---------|---------|---------|---------|----------|
| .798 | .075 | .15930 | -.07140 | .04330 | -.07130 | .05730 | -.00020 | -.00058 | -.00020 | -1.24770 |
| .799 | 2.126 | .20280 | .03140 | .04220 | .03350 | .05540 | .00140 | -.00020 | -.00000 | .54440 |
| .798 | 4.213 | .20270 | .13780 | .03950 | .14190 | .05000 | .00330 | -.00020 | -.00020 | 2.28820 |
| .797 | 6.317 | .21180 | .25320 | .03240 | .25960 | .04430 | .00410 | -.00050 | -.00010 | 3.48790 |
| .797 | 8.434 | .21790 | .36170 | .02610 | .37170 | .04090 | .00290 | -.00020 | -.00080 | 3.80650 |
| .799 | 10.548 | .21450 | .45980 | .02660 | .47080 | .03830 | .00370 | -.00030 | -.00160 | 3.69220 |
| .797 | 12.655 | .21040 | .53950 | .02880 | .56170 | .03670 | .00830 | -.00060 | -.00170 | 3.35540 |
| .797 | 14.791 | .22330 | .63790 | .02100 | .67100 | .04250 | .00710 | -.00160 | -.00340 | 3.00350 |
| .798 | 16.924 | .22020 | .73540 | .01280 | .78340 | .04840 | .00580 | -.00180 | -.00260 | 2.68020 |
| .797 | 19.049 | .22760 | .81820 | .01490 | .88250 | .04670 | .00780 | -.00350 | -.00490 | 2.44940 |
| .798 | 21.189 | .22150 | .90080 | .02430 | .98460 | .04780 | .00370 | -.00460 | -.00490 | 2.24920 |
| .798 | 25.337 | .22600 | .87850 | .01480 | 1.00960 | .05940 | .00199 | -.00560 | -.00340 | 1.75290 |
| .793 | 31.337 | .30970 | .00073 | -.00090 | .05152 | -.00177 | .00065 | -.00007 | -.00000 | .65445 |
| GRADIENT | | | | | | | | | | |
| | | RUN NO. | 1027 0 | RM/L = 4.24 | GRADIENT INTERVAL = -5.004 | 5.00 | | | | |

TABULATED DATA - OA161 (ARC 11-97-87-094)
 ARC 11-97-87-094 OA161 ORBITER + TUFTS.

(RE7810) 1 02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 EDFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 108/ 0 RW/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| 8+8 | .044 | -1.7530 | -.07600 | .06890 | .04960 | -.07590 | .05090 | .00140 | .00030 | -.00030 | -1.24810 |
| 8+9 | 2.131 | -.20790 | .03160 | .06050 | .04710 | -.03380 | -.03930 | -.00030 | -.00030 | -.00030 | -.92270 |
| 8+9 | 4.228 | -.19270 | .14490 | .06650 | .04150 | -.14940 | .03510 | .03510 | .00040 | -.00030 | 2.18010 |
| 8+8 | 6.330 | -.20750 | .26530 | .08390 | .02260 | -.26400 | .05110 | .00040 | .00040 | -.00030 | 3.05680 |
| 8+9 | 8.444 | -.21970 | .35270 | .08390 | .02260 | -.26400 | .05110 | .00040 | .00040 | -.00030 | 3.29380 |
| 8+7 | 10.570 | -.21940 | .44830 | .13550 | .02970 | -.46560 | .05090 | .00040 | .00040 | -.00030 | 3.50860 |
| 8+8 | 12.688 | -.21300 | .52290 | .17430 | .03070 | -.55810 | .03300 | .00040 | .00040 | -.00030 | 3.05550 |
| 8+7 | 14.821 | -.22200 | .62660 | .22500 | .02030 | -.66330 | .03720 | .00040 | .00040 | -.00030 | 2.79510 |
| 8+8 | 16.957 | -.22560 | .72540 | .28450 | .01390 | -.77680 | .03040 | .00040 | .00040 | -.00030 | 2.55010 |
| 8+7 | 19.103 | -.21920 | .81010 | .34380 | .01780 | -.87800 | .03980 | .00040 | .00040 | -.00030 | 2.32500 |
| 8+7 | 21.243 | -.21550 | .88010 | .40730 | .02300 | -.96790 | .03070 | .00040 | .00040 | -.00030 | 2.16110 |
| 8+5 | 26.397 | -.21390 | .88300 | .51790 | .11220 | 1.02120 | .07130 | .00610 | .00210 | -.00160 | 1.70490 |
| GRADIENT | | .00535 | .05221 | .00134 | -.08194 | .05386 | -.03127 | .00089 | .00002 | -.00025 | -.81947 |

RUN NO. 113/ 0 RW/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|--------|--------|---------|----------|
| 8+8 | .073 | -.19830 | -.05540 | .07200 | .04530 | -.05530 | .07210 | .00360 | .00040 | -.00030 | -1.76890 |
| 8+9 | 2.153 | -.20200 | .05540 | .07560 | .03360 | -.06820 | .07310 | .00310 | .00030 | -.00040 | -.87830 |
| 9+0 | 4.253 | -.20980 | .17520 | .08370 | .02940 | -.18090 | .07050 | .00030 | .00030 | -.00030 | 2.09320 |
| 8+8 | 6.354 | -.21190 | .27260 | .10030 | .02600 | -.28220 | .06950 | .00030 | .00030 | -.00030 | 2.72110 |
| 8+9 | 8.459 | -.21820 | .36900 | .12470 | .02320 | -.38040 | .05340 | .00030 | .00030 | -.00030 | 2.93510 |
| 8+9 | 10.599 | -.23160 | .46220 | .15580 | .02280 | -.48300 | .06820 | .00040 | .00040 | -.00030 | 2.96590 |
| 8+9 | 12.723 | -.22390 | .54960 | .19440 | .01920 | -.57910 | .06950 | .00040 | .00040 | -.00030 | 2.81330 |
| 8+9 | 14.862 | -.22950 | .64930 | .24540 | .01940 | -.69080 | .07150 | .00150 | .00150 | -.00130 | 2.63540 |
| 8+9 | 17.003 | -.22060 | .74030 | .30370 | .02050 | -.79670 | .07390 | .00590 | .00590 | -.00150 | 2.43790 |
| 8+5 | 19.145 | -.22330 | .82240 | .36740 | .02950 | -.90300 | .07540 | .00590 | .00590 | -.00150 | 2.25470 |
| 8+5 | 21.271 | -.21650 | .88300 | .42680 | .02500 | -.97730 | .07660 | .00130 | .00130 | -.00060 | 2.07380 |
| 8+5 | 23.462 | -.21060 | .90070 | .54410 | .11340 | 1.04880 | .09490 | .00090 | .00090 | -.00100 | 1.85540 |
| GRADIENT | | .01231 | .05516 | .00280 | -.00404 | .05550 | -.03039 | .00034 | .00000 | -.00000 | -.66456 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

(RETOLO) : 02 AUG 76

PARAMETRIC DATA

REFERENCE DATA

MACH = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 SREF = 935.6900 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = .000 ELEYON = .000
 AIRFRN = .000 BOFLAP = -7.170

RUN NO. 118/ 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CX | CYL | L/D |
|------|--------|--------|---------|---------|---------|--------|---------|---------|---------|---------|
| 9.7 | .072 | .15080 | -.05600 | .09770 | -.05590 | .09770 | .00430 | .00000 | -.00050 | -.57350 |
| 9.6 | 2.159 | .20240 | .07590 | .03280 | .07970 | .09840 | .00520 | -.00050 | -.00050 | .74150 |
| 9.5 | 4.272 | .20540 | .20410 | .01250 | .21200 | .09840 | .00350 | -.00050 | -.00050 | 1.79640 |
| 9.4 | 6.397 | .21550 | .32180 | -.00030 | .33430 | .09370 | .00520 | -.00050 | -.00050 | 2.70000 |
| 9.3 | 8.547 | .22760 | .42800 | -.00750 | .44650 | .09190 | -.00440 | .00000 | .00170 | 2.72490 |
| 9.2 | 10.660 | .23300 | .52330 | -.00990 | .54930 | .08940 | -.00460 | .00000 | .00130 | 2.76150 |
| 9.1 | 12.765 | .23940 | .61300 | -.01230 | .64920 | .09220 | -.00500 | .00000 | .00050 | 2.80980 |
| 9.0 | 14.837 | .24660 | .71590 | -.01630 | .76530 | .09500 | -.00520 | .00000 | .00050 | 2.87490 |
| 8.9 | 17.087 | .25400 | .83390 | -.02180 | .87010 | .09420 | -.00500 | .00000 | .00050 | 2.95200 |
| 8.8 | 19.245 | .26100 | .92540 | -.02800 | .99180 | .09180 | -.01230 | .00000 | -.00540 | 2.17800 |
| 8.7 | 21.365 | .26700 | .99200 | -.03650 | 1.03650 | .09160 | .01280 | .00000 | -.00540 | 2.01390 |
| 8.6 | 23.554 | .27300 | 1.03360 | -.04760 | 1.11500 | .09780 | .01040 | .00000 | -.00520 | 1.82740 |
| 8.5 | 25.819 | .27900 | 1.06199 | -.06379 | 1.15300 | .09039 | -.00024 | .00000 | -.00050 | 1.55462 |
| 8.4 | 28.154 | .28500 | 1.08199 | -.08910 | 1.15300 | .09039 | -.00024 | .00000 | -.00050 | 1.28184 |

GRADIENT

RUN NO. 123/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CX | CYL | L/D |
|------|--------|--------|---------|---------|---------|--------|--------|---------|---------|---------|
| 9.8 | .054 | .18010 | -.04170 | .06250 | -.06160 | .11870 | .00370 | .00020 | -.00040 | -.52010 |
| 9.7 | 2.171 | .18210 | .07640 | .04030 | .08090 | .11860 | .00430 | -.00020 | -.00050 | .62220 |
| 9.6 | 4.272 | .20400 | .23480 | .01770 | .21430 | .11930 | .00420 | -.00040 | -.00050 | 1.51820 |
| 9.5 | 6.397 | .21670 | .33950 | -.02820 | .34450 | .11990 | .00170 | -.00070 | -.00050 | 2.14540 |
| 9.4 | 8.547 | .22430 | .44510 | -.04570 | .46720 | .11320 | .00350 | -.00050 | -.00050 | 2.45570 |
| 9.3 | 10.774 | .23760 | .55450 | -.06520 | .58520 | .11050 | .00350 | -.00170 | .00120 | 2.45210 |
| 9.2 | 12.985 | .24910 | .66680 | -.08780 | .70450 | .11070 | .00500 | -.00120 | .00050 | 2.46230 |
| 9.1 | 15.193 | .26190 | .78320 | -.11300 | .81800 | .11340 | .00500 | -.00120 | .00050 | 2.48410 |
| 9.0 | 17.453 | .27500 | .89970 | -.14070 | .93520 | .11600 | .00600 | -.00120 | .00050 | 2.52010 |
| 8.9 | 19.739 | .28800 | 1.01600 | -.17060 | 1.04110 | .11800 | .00600 | -.00120 | .00050 | 2.56650 |
| 8.8 | 21.945 | .30100 | 1.02800 | -.20370 | 1.14550 | .10750 | .01190 | -.00120 | .00050 | 1.97830 |
| 8.7 | 24.185 | .31400 | 1.02800 | -.24100 | 1.17300 | .11300 | .00900 | -.00120 | .00050 | 1.59150 |
| 8.6 | 26.437 | .32700 | 1.02800 | -.28360 | 1.17300 | .11300 | .00900 | -.00120 | .00050 | 1.20332 |
| 8.5 | 28.699 | .34000 | 1.02800 | -.33160 | 1.17300 | .11300 | .00900 | -.00120 | .00050 | 0.81514 |

GRADIENT

(RE7010) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-084)
ARC 11-97-87-084 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AERON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 CM.FT. XMRP = 1075.6808 IN. XO
LREF = 474.8000 YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0306

RUN NO. 1287 0 RVAL = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.049 | .082 | .15690 | -.04480 | .13960 | .05750 | -.04460 | .13960 | -.08040 | -.00030 | -.00030 | -.32090 |
| 1.054 | 2.171 | .19930 | .09480 | .14820 | .02370 | .10130 | .14440 | .06340 | -.00010 | -.00020 | .64650 |
| 1.049 | 4.287 | .19680 | .22640 | .15770 | .01250 | .23760 | .14040 | .00710 | .00010 | -.00020 | 1.43530 |
| 1.050 | 8.412 | .21610 | .34550 | .17400 | -.01620 | .36440 | .13960 | .00060 | -.00060 | -.00020 | 1.93140 |
| 1.049 | 8.565 | .21860 | .45591 | .20510 | -.02620 | .48130 | .13490 | .00010 | .00010 | .00040 | 2.22260 |
| 1.048 | 10.722 | .23270 | .56041 | .24080 | -.03380 | .59240 | .13230 | .00050 | .00100 | .00200 | 2.32710 |
| 1.049 | 12.889 | .22980 | .66820 | .29070 | -.04270 | .71610 | .12460 | -.00070 | -.00030 | .00090 | 2.29830 |
| 1.048 | 15.038 | .22220 | .77470 | .34870 | -.05070 | .83670 | .12370 | .00660 | -.00070 | .00090 | 2.22170 |
| 1.049 | 17.215 | .21950 | .88600 | .41430 | -.05980 | .96890 | .12480 | .00350 | -.00110 | .00230 | 2.04010 |
| 1.046 | 19.379 | .22130 | .99720 | .49370 | -.07470 | 1.10450 | .13480 | .00470 | -.00070 | .00070 | 1.90560 |
| 1.043 | 21.531 | .20930 | 1.08240 | .56800 | -.07670 | 1.21540 | .13410 | .00590 | -.00040 | -.00030 | 1.58480 |
| 1.041 | 26.752 | .21260 | 1.11770 | .70530 | -.00120 | 1.31550 | .12670 | .00220 | -.00030 | -.00030 | 1.47350 |
| | GRADIENT | .00947 | .06449 | .00430 | -.03308 | .06711 | .00019 | .00178 | .00010 | .00002 | |

RUN NO. 1337 0 RVAL = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.097 | .074 | .15790 | -.04200 | .13880 | .05230 | -.04180 | .13880 | -.00040 | -.00040 | -.00030 | -.30280 |
| 1.100 | 2.162 | .19230 | .09940 | .14450 | .02090 | .10480 | .14050 | .01070 | .00050 | .00000 | .68780 |
| 1.097 | 4.297 | .20960 | .22650 | .16070 | .00040 | .23790 | .14330 | .00270 | -.00040 | -.00020 | 1.40990 |
| 1.098 | 6.442 | .21770 | .34480 | .18080 | -.01770 | .36280 | .14110 | .00110 | -.00080 | -.00020 | 1.90730 |
| 1.096 | 8.568 | .22730 | .45020 | .20780 | -.02650 | .47610 | .13840 | .00110 | .00050 | .00010 | 2.15640 |
| 1.097 | 10.728 | .22130 | .55680 | .24200 | -.03570 | .59210 | .13410 | .00080 | .00090 | .00220 | 2.30090 |
| 1.097 | 12.890 | .21720 | .67090 | .29020 | -.04720 | .71870 | .13330 | .00080 | .00000 | .00140 | 2.31210 |
| 1.097 | 15.060 | .22540 | .78660 | .34890 | -.05690 | .85020 | .12250 | .00950 | -.00350 | .00290 | 2.25440 |
| 1.097 | 17.236 | .21250 | .90020 | .41860 | -.07050 | .98380 | .13310 | .00730 | -.00120 | .00240 | 2.13050 |
| 1.099 | 19.387 | .21480 | .98360 | .46780 | -.07240 | 1.08970 | .13370 | .00850 | -.00140 | -.00140 | 2.01620 |
| 1.094 | 21.529 | .20220 | 1.04790 | .55680 | -.06390 | 1.17910 | .13340 | .01360 | .00270 | -.00240 | 1.88490 |
| 1.096 | 26.781 | .20610 | 1.14960 | .72470 | -.03440 | 1.35230 | .12900 | .00200 | .00050 | -.00100 | 1.58620 |
| | GRADIENT | .00980 | .06365 | .00520 | -.01230 | .06634 | .00104 | .00072 | -.00000 | .00002 | .40287 |

(RE7010) (02 AUG 78)

TABULATED DATA - OA161 (ARC 11-97-87-99)
ARC 11-97-87-99 OA161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALBION = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0800

RUN NO. 1357 0 RV/L = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|--------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.147 | .067 | .14780 | -.02990 | .14300 | -.04358 | -.02970 | .14300 | .06550 | -.00020 | -.00010 | -.20880 |
| 1.150 | 2.150 | .20314 | .09810 | .14850 | .01490 | .10360 | .14700 | .01150 | -.00050 | -.00030 | .68050 |
| 1.150 | 4.271 | .20080 | .22230 | .16400 | -.00650 | .23370 | .14400 | .00590 | -.00030 | -.00010 | 1.38110 |
| 1.148 | 6.393 | .20500 | .33770 | .18080 | -.02530 | .35570 | .14310 | .00710 | -.00040 | -.00020 | 1.86750 |
| 1.147 | 8.551 | .22340 | .44770 | .20700 | -.03800 | .47350 | .13910 | .00420 | -.00060 | -.00020 | 2.16270 |
| 1.147 | 10.716 | .22800 | .58020 | .23900 | -.04250 | .58500 | .13250 | .00230 | -.00050 | -.00100 | 2.30220 |
| 1.146 | 12.874 | .21780 | .66200 | .26600 | -.05070 | .70910 | .13130 | .00130 | -.00110 | -.00050 | 2.31460 |
| 1.146 | 15.036 | .22550 | .76120 | .34070 | -.05690 | .82350 | .13160 | .00530 | -.00150 | -.00060 | 2.23380 |
| 1.148 | 17.209 | .21970 | .86480 | .40690 | -.06850 | .94650 | .13480 | .00870 | -.00230 | -.00070 | 2.12560 |
| 1.144 | 19.368 | .21970 | .95920 | .47590 | -.07430 | 1.06180 | .13420 | .00580 | -.00250 | -.00070 | 2.01330 |
| 1.146 | 21.513 | .20940 | 1.04870 | .53920 | -.06130 | 1.14170 | .12350 | .00420 | -.00120 | -.00040 | 1.88200 |
| 1.145 | 23.783 | .20400 | 1.14020 | .71090 | -.04360 | 1.33820 | .12380 | .00840 | -.00040 | -.00050 | 1.60400 |
| 1.145 | 26.773 | .01257 | .05899 | .00429 | -.01241 | .06266 | .00724 | -.00014 | -.00002 | -.00000 | .37813 |

GRADIENT

RUN NO. 1437 0 RV/L = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.197 | .071 | .15820 | -.02060 | .14620 | -.03590 | -.02050 | .14620 | .00360 | -.00020 | -.00000 | -.14120 |
| 1.201 | 2.150 | .19470 | .09910 | .14970 | .01020 | .10470 | .14580 | .00850 | -.00020 | -.00010 | .68230 |
| 1.199 | 4.266 | .23860 | .24820 | .16350 | -.01190 | .28060 | .14490 | .00350 | -.00050 | -.00000 | 1.35070 |
| 1.196 | 6.392 | .21920 | .33670 | .18130 | -.03170 | .35480 | .14270 | .00220 | -.00050 | -.00030 | 1.85670 |
| 1.195 | 8.538 | .22850 | .44900 | .20840 | -.04650 | .47500 | .13920 | .00360 | -.00060 | -.00050 | 2.15490 |
| 1.195 | 10.718 | .23860 | .55270 | .24210 | -.05110 | .58810 | .13500 | .01020 | -.00150 | -.00120 | 2.28340 |
| 1.194 | 12.889 | .20830 | .65980 | .28740 | -.05940 | .70730 | .13520 | .00730 | -.00030 | -.00040 | 2.23600 |
| 1.195 | 15.059 | .20830 | .75630 | .34350 | -.06730 | .81950 | .13550 | .00810 | -.00080 | -.00050 | 2.60150 |
| 1.195 | 17.203 | .20660 | .85340 | .40760 | -.07660 | .93570 | .13680 | .00550 | -.00150 | -.00070 | 2.09380 |
| 1.193 | 19.357 | .20660 | .94270 | .47430 | -.08040 | 1.04660 | .13500 | .00680 | -.00170 | -.00030 | 1.98770 |
| 1.189 | 21.495 | .19510 | 1.09100 | .53820 | -.07450 | 1.13610 | .13100 | .00390 | -.00030 | -.00150 | 1.87530 |
| 1.189 | 23.773 | .19250 | 1.12460 | .69990 | -.04740 | 1.31930 | .11330 | .00300 | -.00040 | -.00010 | 1.60680 |
| 1.187 | 26.773 | .04200 | .05693 | .00355 | -.01137 | .05962 | -.00731 | -.00003 | -.00007 | -.00000 | .35557 |

GRADIENT

(RE7010) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094-0A161 ORBITER + JUF15

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6500 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000
 MILLIRON = .009
 ELEVON = .000
 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 148 / 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.297 | .055 | .17530 | -.01130 | .02510 | -.01120 | .14680 | -.00780 | -.00210 | .00000 | -.07710 |
| 1.300 | 2.163 | .22590 | .09850 | .00380 | .10180 | .14560 | -.01020 | -.00240 | -.00010 | .64610 |
| 1.299 | 4.238 | .18790 | .20830 | -.01630 | .21950 | .14410 | .01350 | -.00100 | .00010 | 1.30280 |
| 1.297 | 6.361 | .31790 | .17950 | -.03500 | .33570 | .14220 | .00430 | -.00100 | .00010 | 1.79590 |
| 1.297 | 8.511 | .42270 | .04840 | -.04840 | .44810 | .13810 | .01050 | -.00030 | -.00030 | 2.08270 |
| 1.295 | 10.684 | .53470 | .20300 | -.06360 | .56960 | .13530 | .01240 | -.00020 | -.00060 | 2.24110 |
| 1.293 | 12.835 | .64140 | .28430 | -.07550 | .68830 | .13480 | .00090 | -.00130 | .00130 | 2.25480 |
| 1.296 | 14.992 | .72950 | .33420 | -.08140 | .79120 | .13410 | .00690 | -.00080 | .00090 | 2.18280 |
| 1.293 | 17.160 | .82150 | .39480 | -.08900 | .90140 | .13490 | .00280 | -.00160 | .00040 | 2.08080 |
| 1.293 | 19.313 | .90460 | .45770 | -.09080 | 1.00500 | .13280 | .00530 | -.00120 | .00070 | 1.86870 |
| 1.295 | 21.466 | .97860 | .52370 | -.09080 | 1.10230 | .12920 | .00530 | -.00120 | .00070 | 1.97630 |
| 1.291 | 26.768 | .21870 | 1.11790 | -.07150 | 1.31290 | .12050 | .00000 | -.00140 | .00130 | 1.59960 |
| | GRADIENT | .00294 | .05249 | -.00994 | .05515 | -.00055 | .00511 | -.00048 | .00002 | .32979 |

RUN NO. 153 / 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.402 | .032 | .13590 | -.00770 | .01610 | -.00760 | .14520 | -.01520 | -.00080 | .00020 | -.05320 |
| 1.405 | 2.111 | .26260 | .09440 | -.00250 | .09980 | .14390 | -.02580 | -.00330 | -.00050 | 1.64000 |
| 1.402 | 4.222 | .23472 | .27160 | -.02090 | .21260 | .14180 | .01060 | -.00180 | -.00020 | 1.28400 |
| 1.399 | 6.341 | .40310 | .17380 | -.03730 | .32057 | .13930 | -.01210 | -.00200 | -.00010 | 1.74390 |
| 1.398 | 8.499 | .23350 | .40370 | -.05070 | .42860 | .13640 | .00310 | -.00090 | -.00070 | 2.03650 |
| 1.398 | 10.653 | .22220 | .50130 | -.06310 | .53530 | .13390 | .00440 | -.00030 | -.00020 | 2.17440 |
| 1.400 | 12.813 | .28820 | .60350 | -.07720 | .64920 | .13330 | .00190 | -.00070 | .00000 | 2.20250 |
| 1.399 | 14.960 | .20760 | .69510 | -.08610 | .75550 | .13080 | .00150 | -.00030 | -.00070 | 2.06670 |
| 1.399 | 17.123 | .22820 | .78430 | -.09320 | .86030 | .12850 | -.00176 | -.00150 | -.00010 | 2.08570 |
| 1.396 | 19.280 | .23000 | .86890 | -.09710 | .96470 | .12530 | -.00260 | -.00140 | .00069 | 1.98520 |
| 1.395 | 21.433 | .19440 | .93900 | -.09450 | 1.05720 | .12320 | .01290 | -.00070 | .00070 | 1.87450 |
| 1.398 | 26.743 | .19990 | 1.08530 | -.07890 | 1.27340 | .11550 | .00850 | -.00020 | .00090 | 1.60510 |
| | GRADIENT | .02342 | .04996 | -.00983 | .05256 | -.00061 | -.00612 | -.00062 | -.00099 | .31915 |

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TABULATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + TUFTS

(RE7011) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AILRON = .080 EDFLAP = -7.170

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 938.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0360

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| .594 | .092 | 2.24710 | -.05750 | .03040 | -.05740 | .05250 | -.03250 | .00210 | -.00160 | -1.09600 |
| .595 | 4.193 | 2.29470 | 1.3210 | .02950 | 1.3580 | 34550 | -.03310 | .00150 | -.00260 | 2.59070 |
| .596 | 8.368 | 2.30870 | 34050 | .02430 | 34760 | 92300 | -.03430 | .00160 | -.00340 | 4.64420 |
| .597 | 10.588 | 2.32610 | 44890 | .02250 | 95790 | 38790 | -.03100 | .00210 | -.00490 | 4.93540 |
| .598 | 12.762 | 2.30950 | 56740 | .02150 | 57400 | 30600 | -.02950 | .00280 | -.00480 | 4.69480 |
| .599 | 14.755 | 2.29170 | 66310 | .02420 | 68400 | 30600 | -.02720 | .00850 | -.00580 | 3.94450 |
| .599 | 16.896 | 2.29180 | 73650 | .01840 | 78980 | 30260 | -.02680 | .00150 | -.00590 | 3.33220 |
| .594 | 21.095 | 2.27770 | 95770 | .00490 | 1.02760 | 30290 | -.02700 | .00150 | -.00700 | 2.57080 |
| | GRADIENT | .01460 | .00622 | -.00022 | .04710 | -.30173 | -.00815 | -.00015 | -.00024 | .65000 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| .797 | .058 | 2.26270 | -.07180 | .04180 | -.07180 | .05730 | -.03440 | .00240 | -.00120 | -1.25470 |
| .799 | 4.231 | 2.30980 | 1.3870 | .03820 | 14280 | 35020 | -.03310 | .00210 | -.00270 | 2.29860 |
| .797 | 8.464 | 2.31870 | 36510 | .02480 | 37520 | 34080 | -.03220 | .00290 | -.00140 | 3.81910 |
| .799 | 10.580 | 2.32860 | 45140 | .02600 | 46560 | 33950 | -.03150 | .00250 | -.00230 | 3.62580 |
| .797 | 12.744 | 2.3280 | 54580 | .02740 | 58840 | 33870 | -.02900 | .00110 | -.00330 | 3.34510 |
| .798 | 14.891 | 2.32340 | 64490 | .01970 | 67880 | 30320 | -.03000 | .00100 | -.00410 | 2.98230 |
| .797 | 17.061 | 2.33640 | 74120 | .01180 | 78970 | 34710 | -.02870 | -.00340 | -.00540 | 2.57860 |
| .794 | 21.293 | 2.31750 | 89950 | .02510 | 98280 | 34470 | -.02500 | -.00880 | -.00610 | 2.25710 |
| | GRADIENT | .01129 | .05047 | -.00086 | .05845 | -.00170 | .00031 | -.00007 | -.00036 | .84989 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| .849 | .045 | 2.28440 | -.07610 | .04810 | -.07600 | .06080 | -.03760 | .00240 | -.00300 | -1.25330 |
| .848 | 4.243 | 2.30530 | 14610 | .03970 | 15080 | 35570 | -.03570 | .00210 | -.00260 | 2.18990 |
| .847 | 8.477 | 2.31200 | 35950 | .02730 | 37140 | 33300 | -.03120 | .00230 | -.00150 | 3.35310 |
| .847 | 10.582 | 2.31800 | 44310 | .03000 | 46050 | 32000 | -.02770 | .00190 | -.00290 | 3.26250 |
| .846 | 12.762 | 2.31500 | 53580 | .02940 | 56230 | 30400 | -.03400 | -.00300 | -.00400 | 3.06470 |
| .846 | 14.905 | 2.32840 | 63070 | .02000 | 65770 | 35640 | -.03370 | .00220 | -.00390 | 2.78800 |
| .847 | 17.064 | 2.33130 | 72810 | .01450 | 78010 | 35960 | -.03200 | -.00500 | -.00410 | 2.54520 |
| .845 | 21.339 | 2.33810 | 88480 | .03150 | 97830 | 36030 | -.02030 | -.00940 | -.00720 | 2.15610 |
| | GRADIENT | .00498 | .05292 | -.00206 | .05397 | -.00121 | .00045 | -.00097 | -.00038 | .62304 |

(RE7011) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AIRFLON = .000 BDFLAP = -7.970

BETA = 2.000 ELEVON = .000
AIRFLON = .000 BDFLAP = -7.970

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 376.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .893 | .074 | 2.27510 | -.05880 | .07150 | .04330 | -.05870 | -.07150 | -.04290 | .00270 | .00026 | -.82260 |
| .898 | .256 | 2.31300 | .17120 | .08230 | -.02780 | .17680 | .06940 | -.03740 | .00298 | -.00070 | 2.07940 |
| .900 | 8.498 | 2.32430 | .37840 | .12740 | .01850 | .39310 | .07010 | -.03510 | .08130 | -.00230 | 2.97090 |
| .899 | 10.620 | 2.33320 | .45760 | .15860 | .02290 | .47840 | .06860 | -.03350 | .00030 | -.00320 | 2.94050 |
| .896 | 12.779 | 2.33260 | .55290 | .19600 | .01900 | .58250 | .06890 | -.03890 | -.00090 | -.00390 | 2.82060 |
| .902 | 14.940 | 2.33290 | .65580 | .25100 | .00900 | .69840 | .07350 | -.03040 | -.00310 | -.00390 | 2.43180 |
| .901 | 17.125 | 2.34430 | .74750 | .30750 | .00440 | .80490 | .07380 | -.02860 | -.00710 | -.00370 | 2.61260 |
| .900 | 21.376 | 2.32550 | .88900 | .43020 | .02530 | .98460 | .07660 | -.02450 | -.01050 | -.00460 | 2.06640 |
| | GRADIENT | .00906 | .05500 | .00258 | -.00371 | .05632 | -.06050 | .08132 | -.00005 | -.00022 | .69404 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .946 | .064 | 2.24940 | -.05660 | .09700 | .04960 | -.05650 | .09710 | -.02680 | .00100 | -.00250 | -.58380 |
| .948 | 4.279 | 2.29960 | .28910 | .11420 | .01270 | .21210 | .09860 | -.02520 | .00050 | -.00190 | 1.78810 |
| .943 | 8.502 | 2.31400 | .41930 | .15160 | -.00110 | .43310 | .08830 | -.03170 | .00080 | -.00090 | 2.74000 |
| .944 | 10.682 | 2.31880 | .51710 | .18990 | -.00660 | .54330 | .09400 | -.02880 | -.00070 | -.00270 | 2.78220 |
| .944 | 12.845 | 2.29760 | .61010 | .23110 | -.00900 | .64620 | .08970 | -.02410 | -.00310 | -.00310 | 2.64000 |
| .946 | 14.999 | 2.30800 | .71130 | .28640 | -.01900 | .76120 | .08250 | -.01290 | -.00410 | -.00320 | 2.48400 |
| .944 | 17.200 | 2.31660 | .81070 | .34870 | -.01920 | .87750 | .09340 | -.01670 | -.00390 | -.00400 | 2.32490 |
| .942 | 21.432 | 2.29270 | .93250 | .46440 | .01150 | 1.03780 | .09120 | -.01240 | -.00480 | -.00450 | 2.00810 |
| | GRADIENT | .01189 | .06185 | .00408 | -.00875 | .05372 | -.00036 | .09038 | -.00012 | .00014 | .56272 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .979 | .069 | 2.25750 | -.06160 | .11850 | .06100 | -.06140 | .11850 | -.02680 | .09120 | -.00310 | -.51990 |
| .982 | 4.286 | 2.31090 | .20300 | .13260 | .01740 | .21230 | .11700 | -.02940 | .00020 | -.00340 | 1.93130 |
| .981 | 8.571 | 2.30510 | .44390 | .18250 | -.01420 | .46520 | .11430 | -.02530 | .00020 | -.00130 | 2.43280 |
| .980 | 10.729 | 2.31660 | .55370 | .21740 | -.02460 | .58450 | .11060 | -.03100 | .00120 | -.00140 | 2.54690 |
| .982 | 12.888 | 2.28810 | .65890 | .26470 | -.03260 | .70230 | .11080 | -.02230 | .00020 | -.00200 | 2.49320 |
| .982 | 15.061 | 2.33690 | .76160 | .32240 | -.05720 | .81920 | .11350 | -.02300 | -.00370 | -.00190 | 2.36200 |
| .978 | 17.270 | 2.33750 | .86240 | .38430 | -.04080 | .93760 | .11090 | -.01690 | -.00320 | -.00320 | 2.24430 |
| .978 | 21.553 | 2.31690 | 1.02760 | .52160 | -.03700 | 1.14740 | .10750 | -.00960 | -.01160 | -.00700 | 1.97820 |
| .977 | GRADIENT | .01266 | .06275 | .00334 | -.01034 | .06491 | -.00036 | .09062 | -.00024 | -.00007 | .48646 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + TRFTS

(RE7011) (02 AUG 76

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XPRP = 1078.5800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.051 | .073 | 2.25720 | -.04570 | .14060 | .05620 | -.04550 | .14070 | -.03260 | .00070 | -.00450 | -.32480 |
| 1.056 | 4.295 | 2.30070 | .22940 | .16000 | .03010 | .23680 | .14270 | -.02360 | -.00040 | -.00370 | 1.40910 |
| 1.067 | 8.590 | 2.31660 | .45480 | .26570 | .02560 | .48050 | .13550 | -.02760 | -.00050 | -.00200 | 2.21090 |
| 1.078 | 10.791 | 2.31570 | .56160 | .24270 | -.03430 | .59700 | .13360 | -.02890 | -.00060 | -.00210 | 2.31420 |
| 1.088 | 12.921 | 2.29260 | .66800 | .29130 | -.04280 | .71620 | .13460 | -.02440 | -.00130 | -.00300 | 2.29290 |
| 1.097 | 15.098 | 2.33630 | .77440 | .34790 | -.04780 | .83830 | .13420 | -.02660 | -.00200 | -.00320 | 2.22250 |
| 1.099 | 17.330 | 2.33890 | .88930 | .41760 | -.05940 | .97330 | .13380 | -.01960 | -.00500 | -.00600 | 2.12930 |
| 1.099 | 21.625 | 2.32360 | 1.08300 | .56780 | -.07490 | 1.21600 | .13300 | -.01980 | -.08908 | -.00370 | 1.98740 |
| 1.099 | | .01030 | .06421 | .00460 | -.01329 | .06887 | .00047 | .00213 | -.00026 | -.00019 | 4.16589 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.098 | .075 | 2.26190 | -.03690 | .14470 | .05010 | -.03670 | .14480 | -.02710 | .00250 | -.00420 | -.25520 |
| 1.100 | 4.298 | 2.30110 | .22580 | .16500 | -.00298 | .23750 | .14750 | -.01940 | -.00130 | -.00380 | 1.36820 |
| 1.097 | 8.589 | 2.31760 | .44660 | .21340 | -.02908 | .47340 | .14430 | -.02710 | -.00120 | -.00200 | 2.08270 |
| 1.098 | 10.744 | 2.31590 | .54790 | .24640 | -.03550 | .58420 | .13990 | -.02930 | -.00190 | -.00230 | 2.22380 |
| 1.096 | 12.916 | 2.30300 | .65890 | .29320 | -.04500 | .70770 | .13850 | -.03240 | -.00060 | -.00350 | 2.24690 |
| 1.097 | 15.106 | 2.37280 | .78510 | .35060 | -.05690 | .84940 | .13380 | -.03860 | -.00180 | -.00130 | 2.23970 |
| 1.098 | 17.350 | 2.25400 | .79890 | .41870 | -.05960 | .96750 | .13270 | -.03930 | -.00080 | -.00160 | 2.18990 |
| 1.097 | 21.637 | 2.35510 | .88170 | .57560 | -.05620 | .97600 | .13390 | -.03210 | -.00280 | -.00080 | 2.12970 |
| 1.097 | | 2.33180 | 1.04840 | .55750 | -.03600 | 1.18010 | .13200 | -.03150 | -.00420 | -.00020 | 1.88060 |
| 1.097 | | .00928 | .06220 | .00481 | -.01255 | .06492 | .00066 | .00182 | -.00009 | -.00009 | 3.6435 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.150 | .067 | 2.27160 | -.03200 | .14360 | .04310 | -.03180 | .14360 | -.03480 | .00100 | -.00390 | -.22270 |
| 1.149 | 4.282 | 2.32880 | .22630 | .16080 | -.00870 | .23170 | .14400 | -.03510 | -.00090 | -.00370 | 1.35940 |
| 1.147 | 8.584 | 2.32440 | .45040 | .20900 | -.03890 | .47610 | .13950 | -.02540 | -.00130 | -.00390 | 2.15550 |
| 1.147 | 10.742 | 2.31620 | .54960 | .24070 | -.04280 | .58480 | .13410 | -.02460 | -.00010 | -.00370 | 2.28320 |
| 1.145 | 12.915 | 2.33450 | .65870 | .28580 | -.04900 | .70630 | .13270 | -.01770 | -.00010 | -.00210 | 2.30620 |
| 1.145 | 15.107 | 2.34930 | .76960 | .34528 | -.05030 | .83290 | .13200 | -.02120 | -.00020 | -.00100 | 2.22950 |
| 1.147 | 17.328 | 2.35560 | .87030 | .40990 | -.05290 | .95290 | .13210 | -.02930 | -.00270 | -.00248 | 2.12290 |
| 1.151 | 21.605 | 2.32000 | 1.01930 | .54120 | -.05000 | 1.14690 | .12790 | -.01180 | -.00930 | -.00520 | 1.88320 |
| 1.151 | | .05986 | .01357 | .00410 | -.01229 | .06852 | .00008 | -.00007 | -.00045 | -.00005 | 3.7775 |

(RE7011) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-09# 1)
ARC 11-97-87-09# 0A161 ORBITER + TUFTS

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 478.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.194 | 2.28330 | -.02380 | .14610 | .03670 | -.02370 | .14610 | -.03850 | -.00060 | -.00340 | -.16300 |
| 1.200 | 2.31170 | -.01760 | .16170 | -.01280 | .22910 | .15000 | -.02750 | -.00020 | -.00350 | 1.34620 |
| 1.193 | 2.31470 | .45010 | .20940 | -.04610 | .47830 | .13990 | -.02200 | -.00060 | -.00420 | 2.74980 |
| 1.194 | 2.31640 | .56300 | .24290 | -.05080 | .98850 | .13520 | -.02460 | -.00050 | -.00380 | 2.28100 |
| 1.193 | 2.30170 | .68020 | .26880 | -.05960 | .70810 | .13390 | -.03160 | -.00150 | -.00150 | 2.28650 |
| 1.196 | 2.33400 | .76100 | .34570 | -.06930 | .82480 | .13580 | -.02430 | -.00020 | -.00200 | 2.20160 |
| 1.193 | 2.34380 | .85880 | .47040 | -.07690 | .94200 | .13630 | -.02170 | -.00280 | -.00280 | 2.09250 |
| 1.196 | 2.31930 | 1.00740 | .53900 | -.07490 | 1.13500 | .13040 | -.01420 | -.00860 | -.00490 | 1.86850 |
| 1.196 | .00865 | .05724 | .00370 | -.01174 | .05995 | -.02026 | -.00261 | -.00019 | -.00002 | .35788 |

| MACH | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.299 | 2.27130 | -.01360 | .14760 | .02510 | -.01360 | .14760 | -.02200 | .00120 | -.00220 | -.09230 |
| 1.299 | 2.33180 | .20860 | .16060 | -.01640 | .21990 | .14470 | -.03970 | -.00230 | -.00340 | 1.29860 |
| 1.297 | 2.32840 | .42500 | .20330 | -.04630 | .45050 | .13790 | -.03230 | -.00220 | -.00380 | 2.06990 |
| 1.295 | 2.34850 | .53380 | .23910 | -.05430 | .57090 | .13540 | -.02360 | -.00170 | -.00200 | 2.24060 |
| 1.292 | 2.29320 | .64380 | .28550 | -.07590 | .69130 | .13470 | -.02580 | -.00210 | -.00390 | 2.25480 |
| 1.296 | 2.33750 | .73550 | .33660 | -.08290 | .79770 | .13400 | -.02460 | -.00310 | -.00350 | 2.18530 |
| 1.295 | 2.34300 | .82750 | .39710 | -.08880 | .90810 | .13340 | -.02390 | -.00380 | -.00220 | 2.08400 |
| 1.295 | 2.32760 | .98100 | .52630 | -.09060 | 1.10680 | .12890 | -.02300 | -.00650 | -.00230 | 1.86390 |
| 1.292 | .00433 | .03264 | .00308 | -.00983 | .05532 | -.00069 | -.00419 | -.00083 | -.00028 | .32953 |

| MACH | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.399 | 2.28250 | -.00900 | .14670 | .01990 | -.00900 | .14670 | -.03650 | .00010 | -.00260 | -.06160 |
| 1.400 | 2.30480 | .20060 | .15750 | -.02190 | .21900 | .14220 | -.01960 | .00010 | -.00290 | 1.27540 |
| 1.396 | 2.31710 | .40660 | .19800 | -.05080 | .42940 | .13580 | -.02140 | -.00060 | -.00360 | 2.04330 |
| 1.395 | 2.33440 | .50500 | .23160 | -.05970 | .53920 | .13400 | -.02820 | -.00150 | -.00220 | 2.10940 |
| 1.396 | 2.30730 | .60790 | .27590 | -.07870 | .66410 | .13370 | -.02910 | -.00190 | -.00170 | 2.28310 |
| 1.397 | 2.35510 | .69800 | .32670 | -.08570 | .77760 | .13060 | -.02730 | -.00300 | -.00230 | 2.16260 |
| 1.398 | 2.34260 | .78790 | .37880 | -.09270 | .86480 | .12820 | -.02780 | -.00310 | -.00260 | 2.08040 |
| 1.395 | 2.33920 | .94230 | .50350 | -.09440 | 1.08130 | .12240 | -.02420 | -.00780 | -.00240 | 1.87160 |
| 1.395 | .00535 | .04995 | .00257 | -.00890 | .05259 | -.00107 | -.00402 | -.00000 | -.00017 | .31029 |

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(RE7012) (02 AUG 76)

TABULATED DATA - OAN61 (ARC 11-97-87-094)
ARC 11-97-87-094 OAI61 ORBITER + TUFTS

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.6000 IN. XMRP = .8000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| 597 | 101 | 5.34530 | -.05390 | .04970 | -.02510 | -.05380 | .84980 | -.08990 | .00650 | -.00290 | -1.08550 |
| 596 | 4.223 | 5.37960 | .13590 | .06310 | .02490 | .13940 | .04290 | -.08620 | .00640 | -.00840 | 2.56040 |
| 595 | 8.397 | 5.39840 | .34090 | .07340 | .02120 | .34800 | .02280 | -.08490 | .00590 | -.00830 | 4.84500 |
| 594 | 10.816 | 5.37880 | .45100 | -.08090 | .01970 | .46000 | .00700 | -.08150 | .00590 | -.01090 | 4.96370 |
| 593 | 12.637 | 5.38210 | .56760 | .11950 | .01660 | .56000 | -.00760 | -.08200 | .00560 | -.04180 | 4.74980 |
| 592 | 14.759 | 5.37890 | .66820 | .16840 | .01290 | .68900 | -.00730 | -.08180 | .00360 | -.01300 | 3.96770 |
| 591 | 16.867 | 5.37870 | .75510 | .22250 | .01210 | .78720 | -.00610 | -.08430 | .00530 | -.01140 | 3.39430 |
| 590 | 21.070 | 5.38640 | .86100 | .36530 | -.00010 | .82810 | -.00460 | -.09060 | .00730 | -.00990 | 2.63950 |
| 595 | GRADIENT | .08832 | .04605 | .00082 | -.00015 | .04688 | -.00167 | .00090 | -.00002 | -.00063 | -.88461 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| 796 | .085 | 5.35680 | -.06690 | .05520 | .03620 | -.06598 | .05530 | -.09380 | .00760 | -.00260 | -1.19540 |
| 799 | 4.252 | 5.39470 | .14290 | .05920 | .03270 | .14690 | .04840 | -.09010 | .00740 | -.00570 | 2.41600 |
| 796 | 8.489 | 5.40380 | .36828 | .09450 | .02210 | .37820 | .03910 | -.09010 | .00690 | -.00550 | 3.89650 |
| 798 | 10.625 | 5.39560 | .49908 | .12550 | .02180 | .47430 | .03870 | -.08770 | .00530 | -.00720 | 3.63840 |
| 796 | 12.752 | 5.39520 | .59210 | .16490 | .01940 | .57490 | .03890 | -.08590 | .00350 | -.00830 | 3.34860 |
| 795 | 14.882 | 5.40140 | .64590 | .21410 | .01510 | .67840 | .04130 | -.08580 | .00120 | -.00940 | 3.01260 |
| 798 | 17.016 | 5.42610 | .74530 | .27360 | .00960 | .79280 | .04350 | -.08710 | -.00310 | -.00920 | 2.72480 |
| 795 | 21.273 | 5.44740 | .90580 | .39690 | .00410 | .98820 | .04120 | -.08370 | -.01290 | -.00990 | 2.28270 |
| 795 | GRADIENT | .08008 | .03010 | .00096 | -.00084 | .05106 | -.00168 | .00089 | -.00005 | -.00074 | -.88854 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| 797 | .085 | 5.37330 | -.06670 | .05550 | .03640 | -.06670 | .05560 | -.09540 | .00770 | -.00290 | -1.20130 |
| 849 | 4.268 | 5.40070 | .14960 | .06610 | .03410 | .15410 | .04480 | -.09320 | .00840 | -.00530 | 2.26340 |
| 861 | 8.508 | 5.40740 | .38460 | .10680 | .02390 | .37640 | .04170 | -.08700 | .00630 | -.00600 | 3.41290 |
| 844 | 10.637 | 5.40990 | .44930 | .13540 | .02400 | .46660 | .05010 | -.08620 | .00410 | -.00730 | 3.31840 |
| 848 | 12.771 | 5.40120 | .54050 | .17660 | .02250 | .56620 | .05240 | -.08620 | .00300 | -.00860 | 3.06140 |
| 847 | 14.904 | 5.41630 | .63680 | .22940 | .01560 | .67340 | .05410 | -.08950 | -.00110 | -.00950 | 2.82480 |
| 849 | 17.042 | 5.42580 | .73130 | .28330 | .01220 | .78230 | .05650 | -.08170 | -.00600 | -.00960 | 2.58180 |
| 842 | 21.305 | 5.45100 | .88950 | .40330 | .01090 | .97520 | .05250 | -.07830 | -.01120 | -.00960 | 2.22660 |
| 842 | GRADIENT | .08623 | .03168 | .00293 | -.00055 | .05276 | -.00019 | .00093 | -.00017 | -.00025 | -.82784 |

(RE7012) (02 AUG 76)

TABLATED DATA - 0A151 (ARC 11-97-87-094)

ARC 11-97-87-094 0A151 ORBITER + TUFTS

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LRBF = 474.8000 IN. YMRP = .0800 IN. YO
BRBF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0800

RUN NO. 115/ 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .899 | .089 | 5.35590 | -.05790 | .07100 | .05720 | -.05780 | .07110 | -.10180 | -.00960 | -.00040 | -.81560 |
| .902 | 4.273 | 5.40498 | .17620 | .08950 | -.02050 | .18190 | .07010 | -.09830 | -.00920 | -.00860 | 2.11070 |
| .900 | 8.594 | 5.40880 | .37190 | .12370 | .01930 | .38620 | .06730 | -.08630 | .00650 | -.00710 | 3.00580 |
| .898 | 10.655 | 5.40110 | .46410 | .15530 | .01820 | .48190 | .06730 | -.08700 | -.00380 | -.00790 | 2.96980 |
| .896 | 12.787 | 5.40380 | .55290 | .19690 | .00810 | .58270 | .06964 | -.08735 | .00190 | -.00840 | 2.80820 |
| .896 | 14.921 | 5.42400 | .64680 | .24240 | .00470 | .68750 | .06970 | -.09150 | -.00250 | -.00840 | 2.66850 |
| .899 | 17.070 | 5.43920 | .74670 | .30230 | .00270 | .80660 | .06980 | -.07850 | -.01600 | -.01180 | 2.47050 |
| .895 | 21.343 | 5.45930 | .89320 | .42400 | -.02700 | .98630 | .06980 | -.07270 | -.01650 | -.01180 | 2.10570 |
| .895 | GRADIENT | .00931 | .00288 | .00298 | -.00698 | .06720 | -.00024 | .00084 | -.00010 | -.00072 | .69812 |

RUN NO. 116/ 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .952 | .084 | 5.35590 | -.06140 | .10190 | .05140 | -.06130 | .10200 | -.08430 | .00690 | -.00510 | -.60290 |
| .946 | 4.284 | 5.40510 | .19560 | .11190 | .01580 | .20240 | .09700 | -.09040 | .00660 | -.00500 | 1.74750 |
| .946 | 7.796 | 5.39860 | .35590 | .14130 | -.00100 | .37160 | .09230 | -.08750 | .00560 | -.00440 | 2.51910 |
| .942 | 10.709 | 5.40270 | .50430 | .18420 | -.00160 | .52970 | .08730 | -.08000 | -.00660 | -.00770 | 2.73810 |
| .943 | 12.860 | 5.38150 | .61870 | .23340 | -.00160 | .65560 | .08900 | -.06800 | -.00060 | -.00660 | 2.65060 |
| .948 | 14.996 | 5.41060 | .70820 | .28110 | -.01330 | .75660 | .08820 | -.07300 | -.00220 | -.00300 | 2.51990 |
| .947 | 17.158 | 5.41620 | .81820 | .34760 | -.02080 | .88430 | .09080 | -.06210 | -.00720 | -.00300 | 2.33260 |
| .935 | 21.415 | 5.43130 | .93330 | .46050 | .01920 | 1.03700 | .08790 | -.06300 | -.01040 | -.00100 | 2.03880 |
| .935 | GRADIENT | .01193 | .00238 | .00238 | -.00248 | .06302 | -.00119 | .00145 | .00014 | -.00002 | .59961 |

RUN NO. 123/ 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .979 | .085 | 5.37550 | -.05760 | .11620 | .05510 | -.05740 | .11630 | -.08120 | .00450 | -.00630 | -.49660 |
| .979 | 4.304 | 5.40370 | .20240 | .12980 | .01480 | .24160 | .11420 | -.07750 | .00350 | -.00690 | 1.55990 |
| .980 | 6.450 | 5.40800 | .32990 | .15230 | -.00210 | .34490 | .11430 | -.07980 | .00240 | -.00600 | 2.18360 |
| .979 | 8.591 | 5.40850 | .44000 | .18020 | -.01190 | .46200 | .11250 | -.08180 | .00420 | -.00690 | 2.44160 |
| .978 | 10.756 | 5.39280 | .55030 | .21240 | -.02210 | .58020 | .10600 | -.07970 | .00376 | -.00820 | 2.59680 |
| .977 | 12.885 | 5.39570 | .66340 | .25620 | -.03010 | .69410 | .10400 | -.07220 | .00090 | -.00850 | 2.39490 |
| .977 | 15.055 | 5.39420 | .76260 | .31560 | -.03570 | .81840 | .10570 | -.06500 | .00190 | -.00850 | 2.41610 |
| .976 | 17.202 | 5.41940 | .85100 | .37220 | -.03500 | .92310 | .10390 | -.05800 | -.00660 | -.01010 | 2.28630 |
| .973 | 21.504 | 5.44860 | 1.01710 | .51250 | -.02950 | 1.13420 | .10390 | -.04940 | -.01930 | -.01710 | 1.98490 |
| .973 | GRADIENT | .00654 | .06162 | .00322 | -.00956 | .06375 | -.00050 | .00088 | -.00024 | -.00014 | .48721 |

(197012) (02 AUG 76)

TABULATED DATA - CA161 (ARC 11-87-87-094)

ARC 11-97-87-094 CA161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AIRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 986.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MAC | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|-------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.051 | .094 | 5.38210 | -.04220 | .13970 | .05060 | -.04200 | .13970 | -.08520 | .00530 | -.00970 | -.30210 |
| 1.049 | .121 | 5.41230 | .28530 | .23640 | -.00050 | .23640 | .13930 | -.07840 | .00190 | -.00940 | 1.43750 |
| 1.045 | .175 | 5.44100 | .45630 | .20600 | -.00050 | .46210 | .13530 | -.07550 | .00130 | -.00710 | 2.21510 |
| 1.050 | .175 | 5.39310 | .56310 | .24210 | -.03430 | .59850 | .13250 | -.07440 | .00040 | -.00880 | 2.26570 |
| 1.048 | .129 | 5.38760 | .67080 | .28880 | -.04120 | .71780 | .12950 | -.07000 | .00050 | -.00870 | 2.33700 |
| 1.052 | .151 | 5.44400 | .77480 | .34380 | -.04870 | .83470 | .13010 | -.07490 | .00220 | -.00920 | 2.24450 |
| 1.049 | .152 | 5.44810 | .86980 | .40650 | -.04870 | .95120 | .13010 | -.07490 | .00220 | -.00920 | 2.19970 |
| 1.041 | .159 | 5.47040 | 1.05890 | .55570 | -.05880 | 1.18910 | .12720 | -.06580 | .01540 | -.01030 | 1.90570 |
| | | .00714 | .06328 | .00402 | -.01205 | .06586 | -.00009 | .00161 | -.00080 | -.00007 | .41354 |

| MAC | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|-------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.100 | .086 | 5.36620 | -.03680 | .14100 | .04480 | -.03650 | .14100 | -.08270 | .00560 | -.00960 | -.26070 |
| 1.100 | .120 | 5.39860 | .23040 | .16180 | -.07110 | .24220 | .14390 | -.07250 | .00320 | -.00900 | 1.42590 |
| 1.097 | .145 | 5.40440 | .44820 | .21020 | -.07500 | .47460 | .14070 | -.07420 | .00320 | -.00720 | 2.13210 |
| 1.103 | .108 | 5.39920 | .56940 | .24490 | -.03780 | .59630 | .13590 | -.07270 | .00110 | -.00940 | 2.28440 |
| 1.096 | .150 | 5.41000 | .79830 | .34060 | -.04410 | .82070 | .13080 | -.07780 | -.00020 | -.01040 | 2.23070 |
| 1.098 | .172 | 5.44030 | .87036 | .40600 | -.05830 | .95150 | .12960 | -.07290 | -.00360 | -.00640 | 2.14350 |
| 1.094 | .158 | 5.46450 | 1.04170 | .55210 | -.06490 | 1.17780 | .13050 | -.06480 | -.01380 | -.00640 | 1.88680 |
| | | .00788 | .05311 | .00491 | -.01224 | .06575 | .00068 | .00244 | -.00057 | -.00014 | .39795 |

| MAC | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|-------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.151 | .093 | 5.37110 | -.03100 | .14300 | .04010 | -.03080 | .14310 | -.07930 | .00580 | -.00820 | -.21690 |
| 1.150 | .130 | 5.43190 | .22390 | .16000 | -.01440 | .23520 | .14280 | -.08890 | .00080 | -.00840 | 1.39650 |
| 1.145 | .164 | 5.40460 | .45640 | .20960 | -.03860 | .47970 | .13930 | -.06590 | -.00040 | -.00870 | 2.16290 |
| 1.145 | .145 | 5.39340 | .55420 | .24330 | -.04220 | .59990 | .13530 | -.07220 | .00090 | -.00910 | 2.27740 |
| 1.145 | .178 | 5.40450 | .66060 | .28760 | -.05050 | .70820 | .13250 | -.07920 | -.00100 | -.00750 | 2.29660 |
| 1.145 | .193 | 5.42050 | .75960 | .34250 | -.05220 | .83200 | .13030 | -.07710 | .00330 | -.00470 | 2.24620 |
| 1.147 | .147 | 5.44930 | .85540 | .40410 | -.06830 | .94630 | .12920 | -.07190 | -.00610 | -.00500 | 2.14400 |
| 1.148 | .171 | 5.44860 | 1.03590 | .54780 | -.07670 | 1.18220 | .12820 | -.08060 | -.01740 | -.00620 | 1.89220 |
| 1.144 | .179 | 5.47860 | 1.23590 | .70920 | -.08290 | 1.42590 | .12820 | -.08060 | -.0118 | -.00005 | .38284 |
| | | .01436 | .06023 | .00402 | -.01219 | .06394 | -.00007 | .00227 | | | |

(RE7012) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.178

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER - TUFTS

REFERENCE DATA

SPEFA = 2690.0000 SQ.FT. XRRP = 1076.8880 IN. XO.
LREF = 472.8000 IN. YRRP = .0000 IN. YO
BREF = 936.5800 IN. ZRRP = 375.0000 IN. ZO
SCALE = 0.300

RUN NO. 1457 0 RNL = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.199 | .082 | 5.38520 | -.02250 | .03400 | -.02230 | .14620 | -.09180 | .00450 | -.00730 | -.15420 |
| 1.199 | .206 | 5.40700 | .21910 | -.01450 | .23050 | .14390 | -.07180 | .00280 | -.00790 | 1.36330 |
| 1.199 | .501 | 5.41250 | .44770 | -.04450 | .47400 | .14010 | -.07080 | .00060 | -.00890 | 2.13840 |
| 1.199 | .801 | 5.38780 | .55460 | -.05170 | .59060 | .13688 | -.03720 | -.00042 | -.01010 | 2.26420 |
| 1.199 | 10.799 | 5.41610 | .65824 | -.06210 | .70810 | .13420 | -.07770 | .00850 | -.00669 | 2.28260 |
| 1.199 | 12.827 | 5.42020 | .75390 | -.07080 | .82880 | .13240 | -.07850 | -.00250 | -.00530 | 2.28678 |
| 1.199 | 15.089 | 5.43690 | .85460 | -.07860 | .93810 | .13270 | -.08430 | .00550 | -.00610 | 2.11420 |
| 1.199 | 17.248 | 5.45950 | 1.00850 | -.07480 | 1.13370 | .12500 | -.09340 | -.01690 | -.00960 | 1.89308 |
| 1.199 | 21.557 | 5.49494 | .05733 | -.01151 | .05899 | -.00055 | .00475 | -.00040 | -.00014 | .35012 |

RUN NO. 1467 0 RNL = 4.25 GRADIENT INTERVAL = -5.007 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.297 | .068 | 5.37810 | -.01050 | .02150 | -.01030 | .14860 | -.08530 | .00370 | -.00540 | -.07050 |
| 1.297 | .276 | 5.42640 | .21160 | -.01960 | .22300 | .14500 | -.08278 | .00078 | -.00770 | 1.31230 |
| 1.297 | .590 | 5.41430 | .43008 | -.05128 | .45590 | .13970 | -.08348 | -.00730 | -.00770 | 2.06570 |
| 1.297 | 10.747 | 5.41160 | .53520 | -.06330 | .57190 | .13760 | -.07440 | -.00280 | -.00750 | 2.21710 |
| 1.297 | 12.897 | 5.39810 | .64250 | -.07200 | .69010 | .13510 | -.06590 | -.00310 | -.00790 | 2.24870 |
| 1.297 | 15.051 | 5.41870 | .73610 | -.08430 | .79810 | .13320 | -.07050 | .00458 | -.00550 | 2.19167 |
| 1.297 | 17.241 | 5.44150 | .82400 | -.08870 | .90730 | .13158 | -.06890 | .00830 | -.00650 | 2.08700 |
| 1.298 | 21.529 | 5.46320 | .97510 | -.08860 | 1.09710 | .12390 | -.05350 | -.01720 | -.00740 | 1.88520 |
| 1.298 | GRADIENT | .01195 | .05878 | -.00977 | .05645 | -.00086 | .00062 | -.00071 | -.00055 | .32664 |

RUN NO. 1557 0 RNL = 4.23 GRADIENT INTERVAL = -5.007 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.399 | .081 | 5.41000 | -.00750 | .01310 | -.00730 | .14760 | -.09180 | .00290 | -.00480 | -.05080 |
| 1.399 | .259 | 5.46710 | .20160 | -.02350 | .21280 | .14300 | -.10138 | -.00150 | -.00750 | 1.27220 |
| 1.399 | .508 | 5.42620 | .40730 | -.05340 | .43240 | .13728 | -.06680 | -.00200 | -.00730 | 2.03710 |
| 1.399 | 10.715 | 5.39750 | .50520 | -.06538 | .54100 | .13510 | -.08440 | -.00210 | -.00680 | 2.17020 |
| 1.399 | 12.856 | 5.42210 | .60310 | -.07850 | .64870 | .13210 | -.07420 | .00410 | -.00710 | 2.20820 |
| 1.399 | 15.013 | 5.43830 | .69400 | -.08450 | .75350 | .13030 | -.06940 | -.00630 | -.00670 | 2.16190 |
| 1.399 | 17.178 | 5.45230 | .78278 | -.09370 | .85850 | .12690 | -.06630 | -.00940 | -.00560 | 2.08850 |
| 1.399 | 21.482 | 5.48730 | .94151 | -.09580 | 1.09890 | .11960 | -.05160 | -.01670 | -.00600 | 1.86570 |
| 1.399 | GRADIENT | .01337 | .04976 | -.00870 | .05231 | -.00109 | .00226 | -.00105 | -.00854 | .31441 |

(RE7013) (02' AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094
ARC 11-97-87-094 0A161 ORBITTER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .001
A1LRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LRER = 474.8000 IN. YMRP = 7000 IN. YQ
BRER = 936.6800 IN. ZMRP = 379.0800 IN. ZQ
SCALE = .0300

RUN NO. 294 0 RUN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|---------|---------|---------|----------|---------|---------|----------|----------|
| .597 | 1.39 | -4.94520 | -0.9770 | 0.4880 | 0.2890 | -0.4968 | 0.4890 | 0.8998 | -0.0700 | 0.0360 | -1.04890 |
| .598 | 2.166 | -4.93430 | 0.4230 | 0.4910 | 0.2860 | 0.4410 | 0.4750 | 0.8770 | -0.0780 | 0.0500 | .65130 |
| .599 | 4.211 | -4.94260 | 1.3710 | 0.3260 | 0.2780 | 1.4060 | 0.4290 | 0.8760 | -0.0660 | 0.0280 | 2.69710 |
| .597 | 6.283 | -4.98490 | 0.6630 | 0.2530 | 0.2330 | 2.4350 | 0.3400 | 0.8630 | -0.0600 | 0.0720 | 3.94430 |
| .598 | 8.371 | -4.92210 | 3.5100 | 0.2280 | 0.2380 | 3.3200 | 0.2150 | 0.8300 | -0.0720 | 0.0960 | 4.79890 |
| .597 | 10.476 | -4.91140 | 0.9480 | 0.2120 | 0.2100 | 4.6210 | 0.0690 | 0.8480 | -0.0680 | 0.1300 | 4.99130 |
| .597 | 12.586 | -4.88440 | 1.1890 | 0.1910 | 0.1910 | 5.7890 | 0.0740 | 0.7880 | -0.0610 | 0.1460 | 4.75590 |
| .597 | 14.690 | -4.87690 | 1.6660 | 0.1590 | 0.1590 | 6.9390 | 0.0670 | 0.6770 | -0.0600 | 0.0900 | 4.02040 |
| .597 | 16.788 | -4.88170 | 2.2620 | 0.1160 | 0.1160 | 7.9790 | -0.0450 | 0.9920 | -0.0870 | 0.0900 | 3.38320 |
| .597 | 18.908 | -4.90890 | 2.9100 | 0.0750 | 0.0750 | 8.9800 | 0.0000 | 0.9340 | -0.0830 | 0.0950 | 2.91320 |
| .597 | 21.014 | -4.90840 | 3.6280 | 0.0450 | 0.0450 | 1.0100 | 0.0060 | 0.9350 | -0.0810 | 0.0730 | 2.59900 |
| .597 | 23.115 | -4.89800 | 4.3380 | 0.0750 | 0.0750 | 1.1820 | 0.0560 | 1.0190 | -0.0750 | 0.0250 | 2.37590 |
| .596 | 25.199 | -4.88870 | 1.0370 | 0.1900 | 0.1900 | 1.2670 | -0.1010 | 1.1040 | -0.0750 | -0.00170 | 2.17210 |
| .598 | 26.192 | -4.84550 | 1.0650 | 0.4700 | 0.4700 | 1.1790 | 0.0440 | 0.9370 | -0.0610 | 0.00410 | 2.05240 |
| .598 | GRADIENT | .00073 | 0.0093 | -0.0015 | -0.0015 | 0.4668 | -0.06160 | -0.0056 | 0.0010 | 0.00084 | .88388 |

RUN NO. 344 0 RUN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|---------|---------|---------|----------|---------|---------|---------|----------|
| .698 | 1.28 | -4.94620 | -0.9360 | 0.5110 | 0.3180 | -0.5350 | 0.5120 | 0.9150 | -0.0730 | 0.0380 | -1.04860 |
| .699 | 2.166 | -4.93810 | 0.4330 | 0.5110 | 0.3160 | 0.4540 | 0.4940 | 0.8950 | -0.0740 | 0.0610 | .66280 |
| .699 | 4.225 | -4.95210 | 1.4360 | 0.5480 | 0.3080 | 1.4720 | 0.4440 | 0.8720 | -0.0710 | 0.0590 | 2.61980 |
| .699 | 6.315 | -4.94630 | 2.4950 | 0.6370 | 0.2700 | 2.5080 | 0.3590 | 0.8640 | -0.0640 | 0.0710 | 3.91950 |
| .698 | 8.418 | -4.93230 | 3.5940 | 0.7780 | 0.2380 | 3.6780 | 0.2430 | 0.8630 | -0.0720 | 0.0950 | 4.62270 |
| .697 | 10.539 | -4.92050 | 4.7160 | 1.0480 | 0.1940 | 4.8290 | 0.0870 | 0.8370 | -0.0700 | 0.1070 | 4.49520 |
| .699 | 12.654 | -4.90170 | 5.7370 | 1.4420 | 0.1770 | 5.8140 | 0.1580 | 0.8510 | -0.0700 | 0.1130 | 3.97870 |
| .697 | 14.768 | -4.89970 | 6.6620 | 1.9240 | 0.1610 | 6.9230 | 0.0160 | 0.9040 | -0.0730 | 0.0950 | 3.45770 |
| .697 | 16.874 | -4.90450 | 7.5450 | 2.5150 | 0.0910 | 7.9500 | 0.2160 | 0.9030 | -0.0690 | 0.0710 | 3.00320 |
| .697 | 19.006 | -4.93610 | 8.4480 | 3.1370 | 0.0980 | 9.0090 | 0.2140 | 0.9680 | -0.0378 | 0.0420 | 2.69350 |
| .699 | 21.142 | -4.93470 | 9.4260 | 3.8360 | 0.0930 | 1.0160 | 0.1780 | 1.0160 | -0.0140 | 0.0250 | 2.45790 |
| .698 | 23.251 | -4.93040 | 1.0140 | 4.5120 | 0.2140 | 1.0980 | 0.1420 | 1.0300 | -0.0140 | 0.0260 | 2.24750 |
| .698 | 25.362 | -4.90740 | 1.0310 | 4.9170 | 0.10610 | 1.10610 | 0.2100 | 0.9800 | -0.0780 | 0.01860 | 2.01550 |
| .699 | 26.262 | -4.87600 | 1.0360 | 4.9960 | 0.0960 | 1.07240 | 0.2830 | 0.8800 | -0.0880 | 0.0100 | 1.90000 |
| .697 | GRADIENT | .00145 | 0.0090 | -0.0024 | -0.0024 | 0.4698 | -0.00173 | -0.0055 | 0.0045 | 0.00055 | .69519 |

(RET013) (02 AUG 75)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

TABULATED DATA - 0A164 (ARC 11-97-87-894)

ARC 11-97-87-894 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 43/ 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MA | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|----------|--------|--------|---------|---------|---------|---------|---------|--------|----------|
| .800 | .107 | -4.95160 | -.0630 | .05420 | .03820 | -.06020 | .05430 | .09130 | -.00860 | .00330 | -1.11320 |
| .799 | 2.168 | -4.95140 | .04070 | .05390 | .03730 | .04270 | .05230 | .08900 | -.00870 | .00530 | .79480 |
| .798 | 4.238 | -4.95370 | .14550 | .05830 | .13540 | .14940 | .04740 | .08800 | -.00850 | .00590 | 2.49330 |
| .798 | 6.341 | -4.96390 | .26120 | .07260 | .02740 | .26820 | .04320 | .09290 | -.00790 | .00620 | 3.60730 |
| .797 | 8.452 | -4.93600 | .36990 | .09520 | .02180 | .37990 | .03980 | .08680 | -.00750 | .00620 | 3.88430 |
| .797 | 10.572 | -4.92760 | .46590 | .12460 | .1950 | .48180 | .03690 | .09490 | -.00720 | .00690 | 3.74560 |
| .798 | 12.691 | -4.91740 | .56040 | .16580 | .0790 | .59310 | .03850 | .09250 | -.00610 | .00730 | 3.04110 |
| .798 | 14.815 | -4.92110 | .64990 | .21370 | .01510 | .69300 | .04400 | .09200 | -.00570 | .00500 | 2.74330 |
| .797 | 16.931 | -4.91810 | .74360 | .27110 | .00700 | .79040 | .04280 | .09220 | -.00290 | .00250 | 2.51600 |
| .797 | 19.085 | -4.95250 | .83830 | .33290 | .00760 | .91100 | .04050 | .09390 | -.00270 | .00340 | 2.29760 |
| .797 | 21.213 | -4.94930 | .91080 | .39640 | .01970 | .99250 | .04000 | .09220 | .00920 | .00780 | 2.08660 |
| .796 | 23.309 | -4.93910 | .94130 | .45370 | .05010 | 1.04280 | .04140 | .08220 | .01230 | .01830 | 1.88660 |
| .796 | 25.344 | -4.90820 | .90310 | .49380 | .09460 | 1.02330 | .05070 | .06680 | .00002 | .00663 | 1.7313 |
| | | -.00051 | .04983 | .00099 | -.00068 | .05075 | -.00167 | -.00380 | | | |

RUN NO. 44/ 0 RM/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MA | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|----------|---------|--------|---------|---------|---------|---------|---------|--------|----------|
| .851 | .113 | -4.97910 | -.06370 | .05840 | .04360 | -.06360 | .05860 | .09680 | -.00860 | .00300 | -1.09030 |
| .848 | 2.174 | -4.95640 | .04210 | .05840 | .04160 | .04430 | .06660 | .09270 | -.00890 | .00530 | .72040 |
| .847 | 4.257 | -4.96490 | .15210 | .06530 | .03690 | .15650 | .05380 | .09650 | -.00880 | .00530 | 2.32910 |
| .848 | 8.467 | -4.93570 | .36300 | .10590 | .02470 | .37470 | .05130 | .08930 | -.00570 | .00660 | 3.42630 |
| .847 | 10.583 | -4.92170 | .46320 | .13710 | .02160 | .48090 | .04960 | .08460 | -.00590 | .00690 | 3.57770 |
| .847 | 12.714 | -4.92520 | .56270 | .17890 | .02500 | .57950 | .05290 | .09350 | -.00510 | .00900 | 3.09900 |
| .845 | 14.834 | -4.91360 | .64240 | .22600 | .02900 | .67990 | .05430 | .08920 | -.00340 | .00710 | 2.84230 |
| .845 | 16.960 | -4.92580 | .73220 | .28070 | .00900 | .78220 | .05490 | .09320 | .00000 | .00460 | 2.61970 |
| .845 | 19.122 | -4.94950 | .82160 | .34240 | .01520 | .89240 | .05430 | .08550 | .00500 | .00320 | 2.39970 |
| .845 | 21.245 | -4.94760 | .90770 | .40270 | .03570 | .99970 | .05100 | .08010 | .00970 | .00590 | 2.19450 |
| .845 | 23.337 | -4.94560 | .98390 | .46260 | .06030 | 1.01270 | .05600 | .07240 | .01730 | .01100 | 2.00580 |
| .846 | 25.393 | -4.90760 | .89250 | .49630 | .09560 | 1.01910 | .06570 | .05100 | .01910 | .01810 | 1.79820 |
| .848 | 26.405 | -4.86930 | .89760 | .52090 | .10830 | 1.03560 | .06740 | .05430 | .01940 | .01540 | 1.72320 |
| | | .00583 | .05208 | .00167 | -.00162 | .05312 | -.00116 | -.00004 | -.00007 | .00055 | .82513 |

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TABLATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITTER.

PARAMETRIC DATA

BETA = -5.000 ELEVON = -0.000
AILRON = -7.170

REFERENCE DATA

SREF = 2680.000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8300 IN. YMRP = .0000 IN. YO
SREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|---------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| .93 | .105 | -4.97020 | -.05000 | .07110 | .03660 | -.04980 | .07120 | .09870 | -.00990 | .00010 | -.70360 |
| .90 | 2.182 | -4.93070 | .05780 | .07260 | .03010 | .07060 | .07000 | .10390 | -.00940 | .00250 | .93390 |
| .90 | 4.264 | -4.97120 | .17740 | .08300 | .02420 | .18310 | .06960 | .09810 | -.00950 | .00180 | 2.13820 |
| .98 | 6.373 | -4.95370 | .27910 | .10020 | .02050 | .28850 | .06860 | .08980 | -.00810 | .00530 | 2.78510 |
| .89 | 8.486 | -4.94560 | .37280 | .12460 | .01970 | .38710 | .06820 | .08820 | -.00620 | .00870 | 2.99280 |
| .92 | 10.617 | -4.94210 | .47350 | .15740 | .01360 | .49440 | .06750 | .08570 | -.00510 | .00930 | 3.00840 |
| .90 | 12.742 | -4.92890 | .58320 | .19410 | .01000 | .59330 | .07000 | .08790 | -.00290 | .00830 | 2.82830 |
| .90 | 14.861 | -4.93680 | .66000 | .24930 | .00200 | .70190 | .07140 | .08410 | .00170 | .00650 | 2.64740 |
| .89 | 17.012 | -4.93600 | .74570 | .30190 | .00260 | .80130 | .07010 | .08070 | .00490 | .00570 | 2.47320 |
| .89 | 19.173 | -4.96860 | .82980 | .36130 | .00850 | .90240 | .06880 | .07900 | .01040 | .00630 | 2.29550 |
| .88 | 21.302 | -4.96820 | .88410 | .41890 | .02760 | .97590 | .06910 | .07270 | .01460 | .00670 | 2.11070 |
| .90 | 23.415 | -4.95870 | .90540 | .47570 | .06570 | 1.02080 | .07630 | .05850 | .02390 | .01540 | 1.90550 |
| .89 | 25.486 | -4.92540 | .92020 | .52310 | .09770 | 1.04950 | .07940 | .05980 | .04470 | .01260 | 1.74500 |
| .89 | 26.494 | -4.87940 | .94890 | .54890 | .11030 | 1.06830 | .08050 | .06390 | .00630 | .00960 | 1.67730 |
| .89 | -.00024 | -.00024 | .05459 | .00286 | -.00346 | .05603 | -.00368 | -.00015 | .00010 | .00041 | .69337 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|---------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .94 | .119 | -4.96790 | -.05210 | .09820 | .04960 | -.05190 | .09830 | .08730 | -.00730 | .00620 | -.53060 |
| .94 | 2.197 | -4.95230 | .07890 | .10180 | .03080 | .08270 | .09870 | .08770 | -.00690 | .00760 | -.77460 |
| .95 | 4.294 | -4.95350 | .20600 | .11350 | .01360 | .21390 | .09780 | .08360 | -.00700 | .00580 | 1.61470 |
| .94 | 6.410 | -4.95140 | .32350 | .13280 | .00040 | .33630 | .09290 | .08360 | -.00590 | .00500 | 2.43640 |
| .94 | 8.531 | -4.94470 | .42330 | .15780 | -.00330 | .44200 | .09330 | .08070 | -.00260 | .00740 | 2.68170 |
| .94 | 10.663 | -4.94070 | .52320 | .19180 | -.01040 | .54870 | .09180 | .07620 | .00010 | .00760 | 2.72310 |
| .94 | 12.802 | -4.94680 | .62660 | .23450 | -.01710 | .66300 | .08980 | .07210 | .00450 | .00930 | 2.67200 |
| .94 | 14.949 | -4.94680 | .71740 | .28950 | -.01790 | .76816 | .08970 | .07380 | .00980 | .00970 | 2.36540 |
| .94 | 17.098 | -4.94450 | .81450 | .34440 | -.02080 | .87980 | .08970 | .08260 | .00980 | .00980 | 2.19660 |
| .94 | 19.270 | -4.94660 | .90760 | .41320 | -.01950 | .99310 | .09050 | .06360 | .00310 | .00960 | 2.01330 |
| .94 | 21.355 | -4.95470 | .94850 | .47110 | .00840 | 1.05500 | .09560 | .06290 | .01310 | .01140 | 1.83680 |
| .94 | 23.487 | -4.94960 | .94310 | .51670 | .04860 | 1.07640 | .09560 | .06290 | .01920 | .01710 | 1.69570 |
| .94 | 25.568 | -4.92320 | .96670 | .56350 | .07380 | 1.11700 | .09700 | .05510 | .01120 | .00640 | 1.62890 |
| .94 | 26.593 | -4.94010 | .98570 | .59470 | .09470 | 1.11710 | .09760 | .08790 | .00007 | .00640 | 1.58160 |
| .94 | -.00265 | -.00265 | .00367 | .00367 | -.00862 | .06367 | -.00012 | -.00084 | .00007 | -.00810 | .58160 |

(RE7813) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILIRON = .000 BOFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-97-094)

ARC 11-97-97-094 (0A161) ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YC
SPEF = 956.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300F

RUN NO. 64 0 RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| .967 | .113 | -4.96900 | -.05160 | .11660 | .05530 | -.05140 | .11670 | .08500 | -.00540 | .00740 | -.44250 |
| .979 | 2.204 | -4.95170 | .08040 | .11850 | .03450 | .08490 | .11540 | .08110 | -.00500 | .00890 | .67830 |
| .980 | 4.303 | -4.90930 | .20930 | .13270 | .01480 | .21860 | .11600 | .07750 | -.00550 | .00800 | 1.58440 |
| .979 | 8.425 | -4.95370 | .33210 | .15010 | -.00230 | 3.4680 | .11200 | .08000 | -.00500 | .00710 | 2.21270 |
| .979 | 8.558 | -4.93780 | .44070 | .17760 | -.01130 | 4.6220 | .11000 | .07890 | -.00590 | .00740 | 2.48180 |
| .979 | 10.688 | -4.92650 | .55710 | .21390 | -.02390 | 5.8410 | .10730 | .07310 | -.00380 | .00970 | 2.59070 |
| .979 | 12.844 | -4.93490 | .66350 | .26180 | -.03270 | 7.0510 | .10770 | .07330 | -.00110 | .01040 | 2.53460 |
| .977 | 15.003 | -4.93730 | .76390 | .31480 | -.03560 | 8.1930 | .10540 | .07150 | -.00030 | .00940 | 2.42600 |
| .978 | 17.149 | -4.94220 | .85180 | .37350 | -.04120 | 9.2410 | .10580 | .06920 | .00570 | .01130 | 2.28040 |
| .977 | 19.319 | -4.94530 | .94520 | .44430 | -.04250 | 1.03900 | .10560 | .06920 | .01380 | .01200 | 2.12730 |
| .976 | 21.462 | -4.94270 | 1.09900 | .50890 | -.04610 | 1.12570 | .10430 | .05480 | .01700 | .01580 | 1.98350 |
| .977 | 23.570 | -4.94250 | 1.02410 | .55570 | -.04400 | 1.16490 | .10880 | .06520 | .02380 | .01760 | 1.81060 |
| .979 | 25.640 | -4.91720 | 1.01610 | .68770 | -.04850 | 1.17980 | .10820 | .03780 | .02170 | .01750 | 1.67200 |
| .979 | 26.849 | -4.87160 | 1.02920 | .83560 | -.05300 | 1.20400 | .10700 | .04110 | -.00010 | .00014 | 1.61760 |
| GRADIENT | | .00188 | .06226 | .00370 | -.00966 | .06443 | -.00017 | -.00179 | | | .48368 |

RUN NO. 65 0 RVAL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|--------|---------|---------|--------|---------|---------|--------|---------|
| 1.049 | .026 | -4.96890 | -.03570 | .13760 | .05040 | -.03540 | .13770 | .07940 | -.00660 | .01040 | -.25930 |
| 1.051 | 2.210 | -4.96930 | .09790 | .14360 | .02420 | .10340 | .13970 | .07600 | -.00600 | .01100 | .68200 |
| 1.053 | 4.316 | -4.95970 | .22730 | .15680 | .00090 | .23650 | .13920 | .07760 | -.00430 | .00980 | 1.45000 |
| 1.047 | 5.436 | -4.95160 | .34360 | .17730 | -.01360 | 3.6130 | .13760 | .07810 | -.00350 | .00820 | 1.93830 |
| 1.042 | 8.570 | -4.94470 | .45330 | .20370 | -.02670 | 4.7860 | .13390 | .07920 | -.00330 | .00910 | 2.22510 |
| 1.043 | 10.721 | -4.93940 | .56600 | .24290 | -.03420 | 6.0130 | .13340 | .07630 | -.00150 | .01100 | 2.32980 |
| 1.048 | 12.872 | -4.92620 | .67390 | .28960 | -.04260 | 7.2110 | .13120 | .07450 | -.00050 | .01040 | 2.33510 |
| 1.051 | 15.041 | -4.93800 | .77460 | .34300 | -.04400 | 8.3770 | .13020 | .07820 | -.00020 | .01040 | 2.29830 |
| 1.051 | 17.204 | -4.94610 | .85740 | .40790 | -.05280 | 9.5300 | .13190 | .08050 | .00210 | .01110 | 2.13620 |
| 1.046 | 19.374 | -4.96100 | .95200 | .47710 | -.05400 | 1.06580 | .13090 | .07920 | .00770 | .01170 | 2.01660 |
| 1.046 | 21.533 | -4.96420 | 1.04940 | .55350 | -.05650 | 1.17930 | .12910 | .06830 | .01240 | .00910 | 1.77100 |
| 1.045 | 23.664 | -4.95950 | 1.11540 | .62980 | -.05910 | 1.27410 | .12810 | .07470 | .01380 | .00600 | 1.62740 |
| 1.043 | 25.735 | -4.91840 | 1.09320 | .7180 | -.06410 | 1.24650 | .13040 | .03870 | .02410 | .01840 | 1.62740 |
| 1.047 | 26.793 | -4.86610 | 1.10540 | .69760 | -.07110 | 1.30100 | .12530 | .04340 | .02210 | .01870 | 1.58460 |
| GRADIENT | | .00204 | .06276 | .00458 | -.01161 | .06536 | .00036 | -.00043 | | | .45782 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2893.0000 SQ-FT. XMRP = 1075.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 930.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 74/ 0 RNAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|---------|---------|--------|--------|---------|---------|---------|
| 1.101 | 2.207 | -4.96320 | .10490 | .01570 | .11040 | .14220 | .08020 | -.00550 | .01630 | .71660 |
| 1.100 | 4.310 | -4.98440 | .23220 | -.00490 | .24370 | .14300 | .08620 | -.80380 | .00960 | 1.44310 |
| 1.100 | 6.435 | -4.93580 | .34270 | -.01710 | .36090 | .14180 | .06580 | -.00510 | .00840 | 1.67930 |
| 1.098 | 8.568 | -4.94820 | .44930 | -.02540 | .47550 | .14030 | .07920 | -.00440 | .00950 | 2.14350 |
| 1.099 | 10.721 | -4.95920 | .55710 | -.03390 | .59270 | .13600 | .07480 | -.00290 | .01150 | 2.28420 |
| 1.099 | 12.875 | -4.98200 | .65560 | -.04190 | .71300 | .13260 | .07020 | -.00190 | .01150 | 2.30990 |
| 1.100 | 15.046 | -4.94060 | .77630 | -.05250 | .83900 | .13080 | .07740 | -.00170 | .00690 | 2.25570 |
| 1.100 | 17.209 | -4.94860 | .87600 | -.06090 | .95740 | .13040 | .07580 | -.00310 | .00660 | 2.14790 |
| 1.100 | 19.392 | -4.97320 | .95660 | -.06460 | 1.06860 | .13100 | .07310 | .00830 | .00710 | 2.01720 |
| 1.101 | 21.531 | -4.96440 | 1.03890 | -.06380 | 1.16870 | .13090 | .06590 | .01350 | .00750 | 1.88760 |
| 1.099 | 23.661 | -4.95810 | 1.09950 | -.05830 | 1.25660 | .12860 | .07280 | .01310 | .00580 | 1.76740 |
| 1.098 | 25.783 | -4.93800 | 1.13750 | -.04240 | 1.32280 | .12360 | .06980 | .01620 | .00840 | 1.65720 |
| 1.097 | 26.783 | -4.88800 | 1.14030 | -.03400 | 1.41000 | .12620 | .05900 | .02000 | .00950 | 1.59050 |
| | | -.01008 | .06052 | -.00379 | .06338 | .00038 | .00295 | .00081 | -.00033 | -.34531 |

RUN NO. 75/ 0 RNAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.148 | 1.121 | -4.93490 | -.02320 | .03960 | -.02290 | .14200 | .08670 | -.00630 | -.00310 | .16360 |
| 1.149 | 2.193 | -4.97270 | .10340 | .01200 | .10900 | .14240 | .08160 | -.00550 | .00900 | .70600 |
| 1.148 | 4.299 | -4.96780 | .22770 | -.01110 | .23900 | .14200 | .07760 | -.00430 | .00870 | 1.42730 |
| 1.147 | 6.423 | -4.94990 | .34220 | -.02980 | .36910 | .13980 | .07260 | -.00240 | .00820 | 1.90950 |
| 1.147 | 8.561 | -4.93870 | .45200 | -.03610 | .47790 | .13940 | .07170 | -.00180 | .00990 | 2.17340 |
| 1.147 | 10.714 | -4.92700 | .55860 | -.04280 | .59210 | .13560 | .07730 | -.00120 | .01110 | 2.28790 |
| 1.149 | 12.869 | -4.93410 | .66110 | -.04860 | .70850 | .13260 | .07700 | -.00080 | .01020 | 2.30320 |
| 1.149 | 15.043 | -4.94330 | .77360 | -.06230 | .83630 | .13090 | .07490 | .00130 | .00600 | 2.25250 |
| 1.148 | 17.204 | -4.94670 | .86790 | -.06890 | .94980 | .13000 | .07200 | .00430 | .00600 | 2.14810 |
| 1.148 | 19.380 | -4.97840 | .95590 | -.07290 | 1.05830 | .12840 | .07180 | .01040 | .00650 | 1.89530 |
| 1.148 | 21.531 | -4.95720 | 1.03410 | -.07400 | 1.16220 | .12800 | .06200 | .01470 | .00400 | 1.78380 |
| 1.149 | 23.664 | -4.93660 | 1.09860 | -.07120 | 1.25340 | .12310 | .06270 | .01740 | .00400 | 1.65380 |
| 1.149 | 25.770 | -4.94540 | 1.12960 | -.05080 | 1.31240 | .12030 | .06900 | .01960 | .00630 | 1.50920 |
| 1.150 | 26.806 | -4.91030 | 1.14380 | -.04130 | 1.34150 | .11660 | .06600 | .02290 | .00500 | 1.39070 |
| | | .09848 | .06805 | -.07213 | .06269 | -.00000 | -.00218 | .00048 | -.00010 | |

(RET/013) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 EDFLAP = -7.170

TABLATED DATA - OAS1 (ARC 11-97-87-09%)

ARC 11-97-87-09% OAS1 ORBITER

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8086 IN. YMRP = .0080 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

GRADIENT INTERVAL = 4.26 RUN/NO. 84/0 RV/L = 4.26 GRADIENT INTERVAL = 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|----------|----------|----------|---------|---------|--------|----------|
| 1.202 | 1.02 | -4.96080 | -0.1670 | .03290 | -0.01650 | .14540 | .07880 | -0.0730 | .00750 | -0.11520 |
| 1.202 | 2.182 | -4.96000 | .10470 | .09750 | .11030 | .14510 | .07120 | -0.0670 | .00790 | .70190 |
| 1.203 | 4.290 | -4.97050 | .22330 | .09750 | .23470 | .14320 | .07830 | -0.0670 | .00870 | 1.39290 |
| 1.202 | 6.471 | -4.96140 | .33690 | -0.3110 | .35480 | .14080 | .07730 | -0.0180 | .00840 | 1.87580 |
| 1.200 | 8.553 | -4.94470 | .44580 | .04270 | .47270 | .13900 | .07630 | -0.0150 | .00920 | 2.15080 |
| 1.201 | 10.737 | -4.94370 | .55130 | -0.05060 | .58700 | .13680 | .07750 | -0.0140 | .00780 | 2.26650 |
| 1.199 | 12.864 | -4.93590 | .66190 | .06290 | .70970 | .13470 | .07730 | -0.0110 | .00720 | 2.22720 |
| 1.198 | 15.040 | -4.93590 | .76710 | -0.07160 | .83020 | .13360 | .07940 | -0.0020 | .00690 | 2.11670 |
| 1.198 | 17.199 | -4.93590 | .86650 | .07800 | .93790 | .13150 | .07720 | -0.0010 | .00700 | 1.98890 |
| 1.198 | 19.374 | -4.94590 | .93740 | -0.07800 | 1.03990 | .12700 | .07280 | -0.0010 | .00740 | 1.89890 |
| 1.197 | 21.548 | -4.97100 | 1.01090 | .07730 | 1.13630 | .12000 | .06570 | -0.0010 | .00740 | 1.78560 |
| 1.197 | 23.861 | -4.95320 | 1.08370 | -0.07880 | 1.23610 | .12100 | .06710 | -0.0010 | .00660 | 1.66900 |
| 1.193 | 25.779 | -4.92489 | 1.12670 | .06260 | 1.30840 | .11790 | .06290 | -0.0010 | .00880 | 1.61010 |
| 1.198 | 26.808 | -4.92489 | 1.13050 | -0.05040 | 1.32570 | .11680 | .05410 | -0.0010 | .01100 | 1.61010 |
| | GRADIENT | | .05745 | .01146 | .06013 | -0.00513 | -0.0011 | .00077 | .00029 | .36094 |

GRADIENT INTERVAL = 4.25 RUN/NO. 85/0 RV/L = 4.25 GRADIENT INTERVAL = 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|----------|---------|---------|---------|---------|--------|---------|
| 1.297 | 1.00 | -5.00820 | -0.0520 | .02100 | -0.0490 | .14860 | .09700 | -0.0440 | .00640 | -0.3510 |
| 1.297 | 2.155 | -4.98080 | .10390 | -0.0040 | .10350 | .14640 | .08210 | -0.0430 | .00710 | .69050 |
| 1.297 | 4.266 | -4.91570 | .21390 | -0.2030 | .22520 | .14380 | .08530 | -0.0130 | .00850 | 1.33560 |
| 1.295 | 6.381 | -4.99680 | .32300 | .03720 | .34060 | .14110 | .08690 | -0.0050 | .00830 | 1.81320 |
| 1.295 | 8.517 | -4.97320 | .42960 | -0.05100 | .45520 | .13890 | .07640 | -0.0096 | .00760 | 2.09910 |
| 1.294 | 10.672 | -4.95510 | .53530 | .06330 | .57070 | .13780 | .07260 | -0.0030 | .00800 | 2.22050 |
| 1.294 | 12.822 | -4.94470 | .63860 | -0.07520 | .68510 | .13500 | .07730 | -0.0070 | .00780 | 2.24890 |
| 1.293 | 14.995 | -4.96300 | .73900 | .08470 | .80100 | .13400 | .07610 | -0.0020 | .00860 | 2.09300 |
| 1.293 | 17.157 | -4.96760 | .82540 | -0.08750 | .92470 | .13230 | .07260 | -0.0010 | .00840 | 1.92890 |
| 1.293 | 19.327 | -4.98820 | .90290 | .08790 | 1.0200 | .12870 | .07110 | -0.0010 | .00840 | 1.87980 |
| 1.293 | 21.475 | -4.98180 | .97360 | -0.08990 | 1.09560 | .12590 | .07240 | -0.0010 | .00640 | 1.77010 |
| 1.293 | 23.617 | -4.96120 | 1.04510 | .08770 | 1.19410 | .12230 | .06950 | -0.0010 | .00790 | 1.66270 |
| 1.293 | 25.746 | -4.93650 | 1.10390 | -0.08280 | 1.28270 | .11850 | .06410 | -0.0010 | .00940 | 1.66270 |
| 1.293 | 26.798 | -4.93970 | 1.12440 | .08294 | 1.31950 | .11840 | .05850 | -0.0010 | .00940 | 1.60520 |
| 1.293 | GRADIENT | | .05272 | -0.00994 | .05557 | -0.0101 | -0.0015 | .00075 | .00051 | .32979 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(RE7013) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2696.000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BRKF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|--------|---------|---------|---------|
| 1.403 | .074 | -4.97770 | -.00330 | .01350 | -.00320 | 14650 | .07910 | -.00610 | .00530 | -.06280 |
| 1.404 | 2.146 | -.08940 | .14790 | -.00500 | .10390 | 14410 | .09300 | -.00340 | -.00660 | .66520 |
| 1.402 | 4.235 | -.01220 | .15700 | -.02290 | .21390 | 14160 | .09010 | -.00200 | .00770 | 1.29150 |
| 1.398 | 6.362 | -4.98600 | .30710 | -.03950 | .32450 | 13890 | .07860 | -.00010 | .00810 | 1.78460 |
| 1.400 | 8.494 | -4.96360 | .40880 | -.05350 | .43380 | 13670 | .06810 | .00020 | .00950 | 2.09090 |
| 1.40C | 10.648 | -4.95050 | .50510 | -.06380 | .53940 | 13490 | .06880 | .00050 | .00770 | 2.17500 |
| 1.392 | 12.794 | -4.96260 | .58870 | -.07350 | .64410 | 13250 | .07410 | .00130 | .00720 | 2.20250 |
| 1.398 | 14.960 | -4.96760 | .69120 | -.08190 | .75050 | 13010 | .07670 | .00310 | .00580 | 2.16440 |
| 1.398 | 17.126 | -4.97640 | .80050 | -.08850 | .85580 | 12660 | .07680 | .00740 | .00710 | 2.09260 |
| 1.397 | 19.303 | -4.98660 | .92200 | -.09290 | .95890 | 12210 | .06480 | .01060 | .00690 | 2.01080 |
| 1.398 | 21.461 | -5.00530 | 1.05900 | -.09330 | 1.09570 | 11890 | .07070 | .01660 | .00650 | 1.88970 |
| 1.400 | 23.605 | -4.93460 | 1.00840 | -.09110 | 1.15110 | 11590 | .04090 | .01640 | .00620 | 1.77410 |
| 1.398 | 25.736 | -4.93050 | 1.08090 | -.08160 | 1.23230 | 11260 | .04560 | .02080 | .00770 | 1.66510 |
| 1.393 | 26.786 | -4.93930 | 1.08500 | -.07700 | 1.27230 | 11260 | .05750 | .02350 | .00780 | 1.61000 |
| | GRADIENT | -.00288 | .04953 | -.00875 | .05216 | -.00118 | .00264 | .00098 | .00058 | .31585 |

RUN NO. 3217 0 RM/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.556 | .019 | -5.61910 | -.01900 | .00840 | -.01900 | 14020 | .08700 | -.00420 | .00250 | -.13560 |
| 1.556 | 2.016 | -5.61960 | .07270 | -.00710 | .07760 | 13720 | .08150 | -.00310 | .00290 | .52030 |
| 1.556 | 4.095 | -5.62010 | .16630 | -.02300 | .17630 | 13440 | .07870 | -.00470 | .00320 | 1.13400 |
| 1.556 | 6.170 | -5.61780 | .25890 | -.03700 | .27460 | 13180 | .07310 | .00000 | .00360 | 1.61200 |
| 1.556 | 8.243 | -5.61820 | .34790 | -.04800 | .37030 | 12980 | .07210 | .00110 | .00380 | 1.91630 |
| 1.556 | 10.312 | -5.61750 | .43490 | -.05820 | .46540 | 12830 | .07190 | .00170 | .00380 | 2.07600 |
| 1.556 | 12.359 | -5.61750 | .51670 | -.06650 | .55650 | 12570 | .07340 | .00260 | .00330 | 2.13610 |
| 1.556 | 14.448 | -5.62080 | .59410 | -.07130 | .64520 | 12310 | .07120 | .00460 | .00340 | 2.12040 |
| 1.556 | 16.597 | -5.62030 | .67460 | -.07680 | .73960 | 11970 | .06980 | .00690 | .00300 | 2.08950 |
| 1.556 | 18.694 | -5.62210 | .75160 | -.08080 | .83250 | 11520 | .06710 | .01020 | .00300 | 1.99940 |
| 1.556 | 20.726 | -5.61970 | .83170 | -.08530 | .93110 | 11060 | .06440 | .01380 | .00330 | 1.92080 |
| 1.556 | 22.806 | -5.61830 | .90970 | -.08760 | 1.02130 | 10770 | .06250 | .01640 | .00380 | 1.81710 |
| 1.556 | 24.873 | -5.61260 | .99440 | -.08490 | 1.10640 | 10640 | .05870 | .01900 | .00400 | 1.70680 |
| 1.556 | 25.903 | -5.61240 | .99310 | -.08430 | 1.15500 | 10500 | .05740 | .02010 | .00390 | 1.65790 |
| 1.556 | GRADIENT | -.00024 | .04545 | -.00770 | .04791 | -.00142 | -.00203 | .00064 | .00017 | .31135 |

(RET013) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILFRON = .000 BDFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-67-08*)

ARC 11-97-67-09* 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 330/ 0 RVL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.750 | .057 | -5.44710 | -.01750 | .13940 | -.02650 | -.01730 | -.13940 | .08420 | -.00250 | .00240 | -.12900 |
| 1.750 | 2.014 | -5.44800 | .06390 | .13540 | -.01470 | .08860 | -.13270 | .07930 | -.00150 | .00230 | .47320 |
| 1.750 | 4.055 | -5.44820 | .14860 | .14050 | -.02740 | .15810 | -.12980 | .07590 | .00010 | .00220 | 1.05640 |
| 1.750 | 6.094 | -5.45230 | .23200 | .15220 | -.03810 | .24690 | -.12580 | .07350 | .00180 | .00210 | 1.52410 |
| 1.750 | 8.139 | -5.45080 | .31120 | .17100 | -.04570 | .33220 | -.12320 | .07110 | .00270 | .00210 | 1.82000 |
| 1.750 | 12.181 | -5.44960 | .46290 | .22270 | -.05850 | .49950 | -.12060 | .06890 | .00490 | .00290 | 2.07880 |
| 1.750 | 14.255 | -5.44610 | .61310 | .25790 | -.06270 | .58730 | -.11670 | .06770 | .00320 | .00320 | 2.09950 |
| 1.750 | 16.338 | -5.44610 | .61310 | .29770 | -.06270 | .67210 | -.11320 | .06570 | .00290 | .00310 | 2.00410 |
| 1.750 | 18.413 | -5.44670 | .68810 | .34330 | -.06970 | .76130 | -.10940 | .06280 | .01220 | .00300 | 1.92650 |
| 1.750 | 20.401 | -5.44450 | .76050 | .39480 | -.07270 | .85050 | -.10490 | .05810 | .01530 | .00360 | 1.82660 |
| 1.750 | 22.456 | -5.44160 | .83010 | .45400 | -.07440 | .94060 | -.10250 | .05540 | .01740 | .00360 | 1.73280 |
| 1.750 | 24.472 | -5.43970 | .89760 | .51800 | -.07880 | 1.03150 | -.10250 | .05340 | .01930 | .00360 | 1.68430 |
| 1.750 | 25.464 | -5.43630 | .93100 | .55270 | -.08040 | 1.07820 | -.09880 | .05200 | .02000 | .00360 | 1.29638 |
| | GRADIENT | -.08027 | .04154 | .00131 | -.00620 | .04387 | -.00140 | -.00207 | .00065 | -.00005 | |

RUN NO. 331/ 0 RVAL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.997 | .044 | -5.97670 | -.02460 | .12840 | -.01090 | -.02450 | -.12850 | .09380 | -.00160 | .00250 | -.19170 |
| 1.997 | 1.915 | -5.97770 | .04810 | .12750 | -.01950 | .05230 | -.12580 | .08960 | -.00070 | .00230 | .37730 |
| 1.997 | 3.949 | -5.97980 | .12240 | .13180 | -.02860 | .13120 | -.12300 | .08510 | .00070 | .00200 | .92900 |
| 1.997 | 5.978 | -5.98020 | .19550 | .14110 | -.03290 | .20710 | -.12020 | .08150 | .00260 | .00180 | 1.37140 |
| 1.997 | 7.991 | -5.98200 | .26300 | .15700 | -.03810 | .28220 | -.11890 | .07670 | .00500 | .00170 | 1.67470 |
| 1.997 | 9.999 | -5.97770 | .33340 | .17700 | -.04110 | .35910 | -.11658 | .07510 | .00570 | .00210 | 1.88320 |
| 1.997 | 11.998 | -5.97680 | .40340 | .20200 | -.04430 | .43650 | -.11400 | .07370 | .00690 | .00270 | 1.95760 |
| 1.997 | 13.999 | -5.97470 | .47550 | .23210 | -.04890 | .51760 | -.11050 | .07080 | .00860 | .00290 | 2.04890 |
| 1.997 | 16.007 | -5.97120 | .54470 | .26680 | -.04900 | .59770 | -.10630 | .06780 | .01110 | .00250 | 2.00140 |
| 1.997 | 18.029 | -5.96990 | .61730 | .30840 | -.05410 | .68340 | -.10220 | .06350 | .01410 | .00280 | 1.92730 |
| 1.997 | 20.015 | -5.96990 | .68770 | .35680 | -.05750 | .76330 | -.09990 | .06210 | .01670 | .00330 | 1.84370 |
| 1.997 | 22.033 | -5.96600 | .75370 | .40950 | -.06060 | .85230 | -.09680 | .06050 | .01800 | .00380 | 1.75350 |
| 1.997 | 24.034 | -5.96440 | .82060 | .46780 | -.06340 | .93960 | -.09320 | .06120 | .01960 | .00400 | 1.71460 |
| 1.997 | 24.972 | -5.96390 | .85320 | .49950 | -.06510 | .99390 | -.09170 | .06290 | .02000 | .00400 | 1.28678 |
| | GRADIENT | -.08080 | .03763 | .00099 | -.00453 | .03986 | -.00141 | -.00223 | .00058 | -.00013 | |

ORIGINAL PAGE IS
OF POOR QUALITY

(RE7013) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A1LRON = .000 SOFLAP = -7.170

TABLATED DATA - CA161 (ARC 11-97-87-094)

ARC 11-97-87-094 CA161 ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | -.138 | -6.07330 | -.03300 | -.01600 | -.03330 | .11960 | .09880 | -.00350 | .00270 | -.27560 |
| 2.250 | 1.844 | -6.07310 | .02820 | -.02050 | .03200 | .11730 | .09260 | -.00260 | .00250 | .23950 |
| 2.250 | 3.902 | -6.07230 | .09310 | -.02620 | .10120 | .11480 | .08910 | .00150 | .00250 | .76730 |
| 2.250 | 5.957 | -6.07160 | .15890 | -.02420 | .10940 | .11400 | .08430 | .00060 | .00250 | 1.22260 |
| 2.250 | 8.008 | -6.07170 | .21950 | -.03130 | .10900 | .10900 | .07980 | .00300 | .00250 | 1.54790 |
| 2.250 | 10.062 | -6.06970 | .28350 | -.03270 | .10780 | .10780 | .07700 | .00410 | .00250 | 1.77430 |
| 2.250 | 12.093 | -6.06850 | .35090 | -.03580 | .10550 | .10550 | .07000 | .00610 | .00300 | 1.91700 |
| 2.250 | 14.170 | -6.06650 | .41690 | -.03750 | .10370 | .10370 | .06980 | .00750 | .00350 | 1.98360 |
| 2.250 | 16.297 | -6.06470 | .48280 | -.04410 | .10190 | .10190 | .06910 | .00990 | .00370 | 1.98130 |
| 2.250 | 18.375 | -6.06370 | .55060 | -.04760 | .10190 | .09840 | .06910 | .01090 | .00380 | 1.94480 |
| 2.250 | 20.367 | -6.06010 | .61670 | -.05200 | .09270 | .09270 | .06490 | .01240 | .00410 | 1.87940 |
| 2.250 | 22.460 | -6.05730 | .67950 | -.05350 | .08970 | .08970 | .06380 | .01380 | .00490 | 1.79760 |
| 2.250 | 24.541 | -6.05530 | .74220 | -.05520 | .08530 | .08530 | .06480 | .01540 | .00490 | 1.71040 |
| 2.250 | 25.529 | -6.05420 | .77350 | -.05520 | .08980 | .08540 | .06620 | .00530 | .00530 | 1.66890 |
| 2.250 | GRADIENT | .00027 | .00128 | -.00253 | .03329 | -.00119 | -.00240 | .00050 | -.00005 | .25810 |

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | 1.03 | -4.91250 | -.02560 | -.02010 | -.02540 | .11510 | .09690 | -.00170 | .00300 | .22230 |
| 2.499 | 2.136 | -4.94100 | .02990 | -.02330 | -.03410 | .11250 | .09380 | -.00290 | .00290 | .26320 |
| 2.499 | 4.174 | -4.96020 | .08710 | -.02650 | .05940 | .11000 | .08680 | .00050 | .00270 | .74650 |
| 2.499 | 6.205 | -4.97870 | .14550 | -.02820 | .15790 | .10690 | .08400 | .00240 | .00310 | 1.17920 |
| 2.499 | 8.248 | -4.99270 | .20760 | -.02940 | .22490 | .10450 | .08060 | .00410 | .00350 | 1.52940 |
| 2.499 | 10.290 | -5.00160 | .27060 | -.03010 | .29370 | .10100 | .07520 | .00520 | .00430 | 1.75500 |
| 2.499 | 12.333 | -5.00850 | .33560 | -.03200 | .36950 | .10100 | .07220 | .00570 | .00490 | 1.89890 |
| 2.499 | 14.368 | -5.00950 | .40160 | -.03460 | .43970 | .09810 | .07080 | .00750 | .00580 | 1.96700 |
| 2.499 | 16.401 | -5.00800 | .46790 | -.03760 | .51590 | .09530 | .07080 | .00870 | .00630 | 1.97260 |
| 2.499 | 18.457 | -5.00240 | .53190 | -.04030 | .59200 | .09360 | .06780 | .01040 | .00660 | 1.92550 |
| 2.499 | 20.492 | -4.99160 | .59910 | -.04310 | .66840 | .09130 | .06540 | .01330 | .00720 | 1.86110 |
| 2.499 | 22.540 | -4.97840 | .66620 | -.04580 | .74720 | .08890 | .06460 | .01230 | .00770 | 1.78240 |
| 2.499 | 24.577 | -4.96040 | .71760 | -.04870 | .82840 | .08590 | .06460 | .01310 | .00800 | 1.69770 |
| 2.499 | 25.602 | -4.95000 | .74780 | -.05060 | .86990 | .08490 | .06490 | .01320 | .00820 | 1.65280 |
| 2.499 | GRADIENT | -.01871 | .02768 | -.08157 | .02967 | -.00125 | -.00248 | .00054 | -.00007 | .23792 |

TABULATED DATA - 0A161 (ARC 11-87-87-09*)
ARC 11-87-87-09* 0A161 ORBITTER

REFERENCE DATA:
SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 425/ 0 R/V/L = 1.96 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 3.499 | .003 | -4.87920 | -.03420 | .10250 | -.02410 | -.03420 | .10250 | .09380 | -.00170 | .00230 | .33340 |
| 3.499 | 2.033 | -4.90430 | .04130 | 1.0010 | -.02410 | .01470 | .09570 | .08980 | -.00990 | .00290 | .11110 |
| 3.499 | 4.059 | -4.92490 | .06050 | 1.0080 | -.02460 | .06760 | .08630 | .08620 | -.00010 | .00350 | .60120 |
| 3.499 | 6.086 | -4.94230 | .11200 | 1.0540 | -.02510 | .12250 | .09290 | .08180 | .00180 | .00380 | 1.06290 |
| 3.499 | 8.118 | -4.95350 | .16640 | 1.1510 | -.02520 | .18070 | .09050 | .07540 | .00450 | .00450 | 1.44250 |
| 3.499 | 10.155 | -4.96440 | .22170 | 1.3010 | -.02540 | .24110 | .08900 | .07540 | .00340 | .00550 | 1.70320 |
| 3.499 | 12.189 | -4.97080 | .27800 | 1.4970 | -.02550 | .30330 | .08770 | .07510 | .00420 | .00640 | 1.85660 |
| 3.499 | 14.224 | -4.97490 | .33780 | 1.7440 | -.02580 | .37030 | .08610 | .06940 | .00510 | .00770 | 1.93590 |
| 3.499 | 16.252 | -4.98950 | .39650 | 2.0330 | -.02900 | .43750 | .08420 | .06940 | .00620 | .00820 | 1.97840 |
| 3.499 | 18.282 | -4.99330 | .45690 | 2.3820 | -.02740 | .50650 | .08270 | .06740 | .00690 | .00820 | 1.85750 |
| 3.499 | 20.314 | -4.99340 | .51660 | 2.7810 | -.03100 | .58100 | .08140 | .06640 | .00780 | .00840 | 1.78250 |
| 3.499 | 22.355 | -4.99870 | .57870 | 3.2460 | -.03350 | .65870 | .08000 | .06300 | .00850 | .00850 | 1.69780 |
| 3.499 | 24.391 | -4.99370 | .63510 | 3.7410 | -.03580 | .73290 | .07840 | .06110 | .01070 | .00830 | 1.65560 |
| 3.499 | 25.409 | -4.97070 | .66340 | 4.0070 | -.03700 | .77110 | .07730 | .06010 | .01110 | .00830 | 1.23043 |
| 3.499 | | -.01124 | -.00042 | | -.00012 | .02510 | -.00153 | -.00187 | .00044 | .00038 | |

RUN NO. 426/ 0 R/V/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 3.499 | -.188 | -5.09700 | -.03750 | .09620 | -.02660 | -.03780 | .09610 | .09240 | -.00060 | .00130 | .39930 |
| 3.499 | 1.834 | -5.11870 | .00830 | .09260 | -.02480 | .00320 | .09260 | .08330 | -.00030 | .00220 | .00280 |
| 3.499 | 3.856 | -5.13980 | .04640 | .09170 | -.02400 | .05250 | .08840 | .08070 | .00040 | .00310 | .50580 |
| 3.499 | 5.888 | -5.15920 | .09260 | .08640 | -.02360 | .10190 | .08540 | .08150 | .00160 | .00390 | .97090 |
| 3.499 | 7.909 | -5.17190 | .14220 | .10390 | -.02290 | .15520 | .08330 | .07740 | .00210 | .00500 | 1.36890 |
| 3.499 | 9.947 | -5.17820 | .19250 | .11710 | -.02200 | .20880 | .08210 | .07050 | .00200 | .00600 | 1.84540 |
| 3.499 | 11.965 | -5.18940 | .24740 | .13500 | -.02120 | .27000 | .08080 | .07130 | .00330 | .00700 | 1.83210 |
| 3.499 | 13.988 | -5.18540 | .30240 | .15730 | -.02070 | .33150 | .07950 | .07180 | .00430 | .00780 | 1.93320 |
| 3.499 | 16.051 | -5.18570 | .35820 | .18470 | -.02070 | .39350 | .07860 | .06900 | .00560 | .00850 | 1.93320 |
| 3.499 | 18.061 | -5.17850 | .41730 | .21740 | -.02190 | .45610 | .07730 | .06520 | .00560 | .00800 | 1.91950 |
| 3.499 | 20.082 | -5.16850 | .47380 | .25470 | -.02340 | .52250 | .07650 | .06370 | .00670 | .00930 | 1.86320 |
| 3.499 | 22.118 | -5.15420 | .53240 | .29740 | -.02470 | .60520 | .07510 | .06090 | .00780 | .00930 | 1.79020 |
| 3.499 | 24.147 | -5.13570 | .59090 | .34990 | -.02630 | .68070 | .07390 | .05790 | .00880 | .00940 | 1.70830 |
| 3.499 | 25.170 | -5.12480 | .61990 | .37210 | -.02710 | .74850 | .07350 | .05650 | .00920 | .00950 | 1.65370 |
| 3.499 | | -.01058 | -.00074 | | .00064 | .02233 | -.00190 | -.00289 | .00025 | .00045 | .22133 |

(RE7014) 1 02 AUG 75

TABULATED DATA - 0A161 (ARC 11-97-87-084)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA =
AILRON =
-2.000 ELEVON = .000
.000 BDFLAP = -7.170

RUN NO. 30/0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CB | L/D |
|------|--------|----------|---------|---------|---------|---------|---------|---------|--------|----------|
| .598 | .084 | -1.84760 | .05510 | .03120 | -.05600 | .05210 | .03380 | -.00280 | .00130 | -1.05830 |
| .600 | 2.128 | -1.85510 | .03740 | .03120 | .03980 | .05050 | .03580 | -.00250 | .00160 | .71940 |
| .597 | 4.182 | -1.84370 | .13320 | .03110 | .13690 | .04510 | .03370 | -.00250 | .00170 | 2.42260 |
| .597 | 6.257 | -1.84920 | .23570 | .02860 | .24100 | .03570 | .03520 | -.00220 | .00240 | 3.84900 |
| .598 | 8.342 | -1.84450 | .34070 | .02460 | .34770 | .02800 | .03290 | -.00250 | .00340 | 4.65660 |
| .597 | 10.452 | -1.84150 | .45000 | .02320 | .45910 | .02310 | .03250 | -.00220 | .00610 | 4.67770 |
| .597 | 12.576 | -1.83500 | .56150 | .02080 | .57420 | .00550 | .03660 | -.00390 | .00440 | 3.95150 |
| .597 | 14.666 | -1.80560 | .65610 | .00970 | .67680 | -.00180 | .04220 | -.00430 | .00240 | 3.33970 |
| .597 | 16.802 | -1.86520 | .78110 | .00940 | .78410 | .00430 | .04310 | -.00300 | .00150 | 2.87150 |
| .597 | 18.927 | -1.86820 | .94720 | .00540 | .94940 | .00530 | .04340 | -.00250 | .00150 | 2.55890 |
| .596 | 21.044 | -1.86110 | 1.01430 | .01270 | 1.01440 | .00340 | .04540 | -.00160 | .00280 | 2.32160 |
| .596 | 23.129 | -1.86800 | 1.06240 | .02980 | 1.17420 | .00010 | .04540 | -.00100 | .00500 | 2.12430 |
| .593 | 25.204 | -1.86160 | 1.06240 | .05298 | 1.17400 | .00160 | .04240 | -.00150 | .00270 | 2.03690 |
| .597 | 26.180 | -1.77990 | .04595 | -.00002 | .04663 | -.00171 | -.00002 | .00007 | .00010 | .84942 |
| | | .00096 | | | | | | | | |

RUN NO. 35/0 RVAL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CB | L/D |
|------|--------|----------|---------|---------|---------|---------|---------|---------|--------|----------|
| .689 | .097 | -1.87870 | .05970 | .03460 | -.05960 | .05290 | .03610 | -.00330 | .00130 | -1.13180 |
| .689 | 2.127 | -1.85290 | .03560 | .03430 | .03750 | .05120 | .03300 | -.00330 | .00180 | .67560 |
| .688 | 4.193 | -1.84360 | .13470 | .03340 | .13840 | .04590 | .03430 | -.00270 | .00160 | 2.40860 |
| .696 | 6.285 | -1.83360 | .24100 | .02990 | .24650 | .03666 | .03670 | -.00250 | .00250 | 3.86810 |
| .695 | 8.386 | -1.84710 | .35620 | .02450 | .36380 | .02980 | .03820 | -.00260 | .00310 | 4.57770 |
| .697 | 10.511 | -1.83760 | .46460 | .02150 | .47600 | .01840 | .03400 | -.00260 | .00490 | 4.43090 |
| .697 | 12.329 | -1.82300 | .54320 | .02220 | .55960 | .01680 | .03790 | -.00280 | .00450 | 3.99720 |
| .697 | 14.722 | -1.83620 | .59940 | .02190 | .61680 | .01680 | .03910 | -.00320 | .00450 | 3.89650 |
| .697 | 16.738 | -1.81440 | .65150 | .02130 | .67840 | .01610 | .03910 | -.00360 | .00190 | 3.42750 |
| .697 | 18.781 | -1.87450 | .74360 | .01330 | .78410 | .02340 | .04190 | -.00290 | .00070 | 2.97280 |
| .686 | 19.016 | -1.87560 | .84500 | .00320 | .90270 | .04463 | .04463 | -.00160 | .00110 | 2.65300 |
| .686 | 21.151 | -1.86970 | .95710 | .01250 | 1.01320 | .02170 | .04528 | -.00030 | .00150 | 2.42870 |
| .686 | 23.251 | -1.85290 | 1.02280 | .02680 | 1.09980 | .01940 | .04450 | -.00060 | .00320 | 2.21894 |
| .686 | 25.293 | -1.82400 | .98770 | .06810 | 1.10300 | .02240 | .03450 | -.00390 | .00150 | 2.02840 |
| .683 | 26.248 | -1.77220 | .95593 | .09310 | 1.07880 | .02630 | .03220 | -.00400 | .00270 | 1.92930 |
| | | .00856 | .04746 | -.00029 | .04834 | -.00171 | -.00894 | .00015 | .00007 | .86417 |

(RE7014) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-084)
 ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 A/LRON = .090 BDFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 379.0000 IN. Z0
 SCALE = .0300

RUN NO. 424 0 R/V/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|--------|---------|--------|----------|
| 798 | .082 | -1.88950 | -.06630 | .09630 | -.04200 | -.06620 | .05840 | .03390 | -.00330 | .00090 | -1.17750 |
| 799 | 2.131 | -1.86600 | -.03440 | .05620 | -.04090 | -.03640 | .05480 | .03370 | -.00320 | .00170 | .61210 |
| 797 | 4.214 | -1.85390 | .05980 | .14530 | .03860 | .14530 | .04930 | .03600 | -.00280 | .00180 | 2.36130 |
| 798 | 6.325 | -1.84360 | .25640 | .07310 | -.03090 | -.26290 | .04440 | .03520 | -.00310 | .00200 | 3.50730 |
| 798 | 8.431 | -1.84770 | .36310 | .09590 | .02420 | .37330 | .04160 | .03590 | -.00220 | .00370 | 3.78730 |
| 797 | 10.558 | -1.83970 | .45610 | .12490 | .02470 | .47130 | .03920 | .03620 | -.00270 | .00430 | 3.65230 |
| 798 | 12.681 | -1.83370 | .54720 | .16400 | .02570 | .56990 | .03440 | .03760 | -.00280 | .00300 | 3.33730 |
| 798 | 14.792 | -1.82290 | .64260 | .21428 | .01870 | .67600 | .04310 | .03500 | -.00210 | .00400 | 2.99940 |
| 798 | 16.961 | -1.87800 | .73830 | .27450 | .01120 | .78630 | .04770 | .03500 | -.00140 | .00060 | 2.68950 |
| 798 | 19.112 | -1.87240 | .82610 | .33680 | .01296 | .89080 | .04560 | .03590 | -.00050 | .00090 | 2.43290 |
| 798 | 21.253 | -1.85340 | .90990 | .40130 | .02310 | .98980 | .04770 | .03340 | -.00040 | .00110 | 2.23740 |
| 797 | 23.336 | -1.84570 | .93610 | .45200 | .05140 | 1.03980 | .04490 | .04100 | .00040 | .00110 | 2.05860 |
| 798 | 25.367 | -1.82478 | .89950 | .48570 | .09930 | 1.02130 | .05490 | .03390 | .00040 | .00080 | 1.84890 |
| 798 | 26.343 | -1.78400 | .86280 | .49960 | .11308 | 1.01190 | .09660 | .00040 | .00040 | .00080 | 1.76570 |
| 798 | GRADIENT | .00861 | .05023 | .03085 | -.00892 | .05119 | -.00172 | .00051 | .00012 | .00022 | .85548 |

RUN NO. 45/ 0 R/V/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|--------|---------|--------|----------|
| 847 | .093 | -1.85340 | -.07250 | .06000 | .04770 | -.07240 | .05000 | .03740 | -.00230 | .00060 | -1.20840 |
| 848 | 2.133 | -1.86080 | -.03470 | .05890 | .04560 | -.05680 | .05860 | .03280 | -.00300 | .00150 | .57930 |
| 847 | 4.209 | -1.85240 | .14750 | .09600 | .04010 | .15190 | .05500 | .03680 | -.00250 | .00130 | 2.23440 |
| 847 | 6.308 | -1.84870 | .26040 | .09310 | .03010 | .26808 | .05380 | .03800 | -.00240 | .00140 | 3.13570 |
| 847 | 8.444 | -1.84150 | .35730 | .10540 | .02700 | .36910 | .05280 | .03070 | -.00250 | .00430 | 3.35840 |
| 847 | 10.574 | -1.83850 | .44970 | .13740 | .02800 | .49670 | .05260 | .02980 | -.00270 | .00430 | 3.26930 |
| 849 | 12.701 | -1.82810 | .53760 | .17560 | .02690 | .61120 | .05310 | .03270 | -.00240 | .00320 | 3.05120 |
| 849 | 14.816 | -1.83420 | .63420 | .22700 | .01700 | .77980 | .05720 | .04160 | -.00160 | .00150 | 2.79440 |
| 849 | 16.985 | -1.83300 | .72840 | .28460 | .0210 | .88800 | .05940 | .03980 | -.00080 | .00110 | 2.55950 |
| 847 | 19.145 | -1.83700 | .81990 | .34690 | .01610 | .98460 | .05890 | .03560 | .00050 | .00020 | 2.36350 |
| 846 | 21.274 | -1.85540 | .87770 | .40420 | .03000 | .95460 | .05820 | .03220 | -.00250 | .00040 | 2.17130 |
| 845 | 23.372 | -1.85220 | .91690 | .46910 | .05780 | 1.02680 | .06220 | .03110 | .00430 | .00040 | 1.97590 |
| 847 | 25.397 | -1.82610 | .87300 | .49200 | .10560 | 1.05600 | .07080 | .04490 | .00430 | .00040 | 1.77110 |
| 849 | 26.363 | -1.79210 | .86180 | .51530 | .11028 | 1.01890 | .07020 | .04900 | -.00020 | .00020 | 1.71110 |
| 849 | GRADIENT | .00264 | .08268 | .00144 | -.00182 | .05371 | -.00120 | .00014 | -.00007 | .00017 | .82430 |

(RE7014) (02 AUG 75

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAR = -7.170

PARAMETRIC DATA

RUN NO. 534 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 902 | .083 | -1.90310 | -.05140 | .07190 | .04200 | -.05130 | .07160 | .04170 | -.00300 | -.00080 | -.71810 |
| 902 | 2.158 | -1.87480 | .06910 | .07460 | .03220 | .07180 | .07200 | .04190 | -.00270 | -.00070 | 92510 |
| 909 | 4.250 | -1.86130 | .17540 | .08300 | .02760 | .18110 | .06980 | .04030 | -.00276 | -.00040 | 2.74360 |
| 906 | 6.361 | -1.84970 | .27890 | .10170 | .02330 | .28840 | .07020 | .03330 | -.00210 | -.00150 | 2.93580 |
| 909 | 8.466 | -1.84550 | .36820 | .12540 | .02070 | .38270 | .06980 | .03440 | -.00190 | -.00110 | 2.94680 |
| 907 | 10.607 | -1.83980 | .46610 | .15820 | .01730 | .48730 | .06970 | .03660 | -.00110 | -.00230 | 2.82870 |
| 908 | 12.735 | -1.83510 | .55720 | .19840 | .01360 | .58720 | .07070 | .03660 | -.00050 | -.00210 | 2.62160 |
| 900 | 14.861 | -1.82660 | .65398 | .24953 | .00980 | .69610 | .07340 | .03490 | -.00120 | -.00140 | 2.44080 |
| 900 | 17.041 | -1.81970 | .74590 | .30660 | .00790 | .80280 | .07360 | .03330 | -.00120 | -.00120 | 2.25730 |
| 909 | 19.211 | -1.81420 | .83280 | .36900 | .00790 | .90790 | .07760 | .02970 | -.00060 | -.00060 | 2.06490 |
| 902 | 21.354 | -1.80780 | .89280 | .43240 | .00790 | .98690 | .07760 | .02890 | -.00060 | -.00060 | 1.89070 |
| 907 | 23.427 | -1.80470 | .90310 | .47770 | .00620 | 1.01860 | .07920 | .01900 | -.00420 | -.00420 | 1.72350 |
| 901 | 25.491 | -1.82980 | .89420 | .51880 | .10800 | 1.03040 | .08350 | .04830 | -.00420 | -.00130 | 1.65190 |
| 902 | 26.491 | -1.77950 | .90740 | .54680 | .11010 | 1.05570 | .08390 | .03830 | -.00007 | -.00028 | 1.57042 |
| | | .01003 | .05442 | .00276 | -.00345 | .05577 | -.00043 | -.00034 | | | |

RUN NO. 564 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 950 | .061 | -1.85610 | -.05740 | .10100 | .05281 | -.05730 | .10100 | .02790 | -.00160 | -.00180 | -.58860 |
| 951 | 2.164 | -1.87090 | .07720 | .10380 | .03250 | .08100 | .10080 | .03380 | -.00090 | -.00230 | 74330 |
| 948 | 4.269 | -1.85810 | .20750 | .11450 | .01100 | .21550 | .08860 | .03680 | -.00050 | -.00170 | 1.81180 |
| 948 | 6.394 | -1.85120 | .32560 | .13320 | -.00120 | .33840 | .09610 | .03270 | -.00158 | -.00130 | 2.44410 |
| 949 | 8.519 | -1.84570 | .42860 | .15860 | -.00870 | .44730 | .09340 | .02830 | -.00050 | -.00330 | 2.70190 |
| 948 | 10.680 | -1.83190 | .52290 | .19070 | -.01120 | .54910 | .09070 | .02420 | -.00160 | -.00430 | 2.74150 |
| 949 | 12.799 | -1.82470 | .62410 | .23780 | -.01630 | .66130 | .09378 | .0346 | -.00488 | -.00210 | 2.62470 |
| 948 | 14.928 | -1.81840 | .72090 | .29170 | -.02220 | .77110 | .09530 | .03090 | -.00260 | -.00260 | 2.46970 |
| 948 | 17.128 | -1.81230 | .81630 | .35100 | -.02150 | .88350 | .09500 | .03250 | -.00800 | -.00160 | 2.32550 |
| 946 | 19.296 | -1.80580 | .90030 | .41490 | -.01490 | .98680 | .09410 | .02780 | -.00300 | -.00170 | 2.17010 |
| 947 | 21.440 | -1.80050 | .95550 | .47980 | .00320 | 1.06330 | .09360 | .02700 | -.00350 | -.00170 | 2.00840 |
| 946 | 23.525 | -1.80860 | .96400 | .52670 | .04270 | 1.09410 | .09820 | .02910 | -.00900 | -.00350 | 1.83010 |
| 946 | 25.596 | -1.81360 | .95460 | .57140 | .08190 | 1.10780 | .09820 | .00420 | -.00650 | -.00650 | 1.67030 |
| 948 | 28.576 | -1.78180 | .95990 | .59510 | .09330 | 1.12430 | .10300 | .04280 | -.00180 | -.00180 | 1.51220 |
| | | .00047 | .06296 | .00321 | -.00993 | .06483 | -.00052 | -.00207 | | | 56372 |

TABLED DATA - QAI61 (ARC 11-97-87-024)
ARC 11-97-87-09+ QAI61 ORBITER.

(RET 014) 02 AUG 76

PARAMETRIC DATA

BETA = -2.000 ELEVON = 0.000
AULRON = 0.008 BDF = 7.170

REFERENCE DATA

SPEE = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = 0.0000 IN. YO
SPEE = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0500

RUN. NO. 634.0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.02

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|----------|---------|--------|---------|---------|---------|--------|---------|--------|---------|
| 981 | .092 | -1.89900 | .05770 | .11760 | .06060 | -.05750 | 11.770 | .03270 | -.00130 | .00210 | 1.9060 |
| 980 | 2.172 | -1.87160 | .07470 | .12110 | .03980 | .07920 | 11.820 | .03380 | -.00120 | .00270 | .61670 |
| 979 | 4.274 | -1.86280 | .20990 | .13200 | .01520 | .21510 | 11.630 | .03710 | -.00080 | .00270 | .55950 |
| 978 | 6.408 | -1.84810 | .53030 | .15940 | -.00230 | .45300 | 11.560 | .03210 | -.00090 | .00170 | 2.19060 |
| 977 | 8.539 | -1.83520 | .74430 | .17840 | -.01630 | .65900 | 11.050 | .02800 | -.00120 | .00230 | 2.57030 |
| 976 | 10.682 | -1.81750 | .85030 | .21410 | -.02476 | .80400 | 10.930 | .02530 | -.00150 | .00440 | 2.57500 |
| 975 | 12.840 | -1.81010 | .89930 | .25430 | -.03210 | .91200 | 11.120 | .02680 | -.00160 | .00700 | 2.58460 |
| 974 | 14.976 | -1.81410 | .95260 | .31830 | -.03710 | .92600 | 11.090 | .02790 | -.00190 | .00900 | 2.59300 |
| 973 | 17.185 | -1.80880 | .94530 | .37870 | -.04120 | 1.04160 | 11.280 | .02880 | -.00250 | .00900 | 2.59760 |
| 972 | 19.359 | -1.80250 | .85250 | .45170 | -.04120 | 1.18800 | 11.370 | .02880 | -.00350 | .00480 | 1.80510 |
| 971 | 21.496 | -1.80880 | 1.00950 | .51130 | -.02840 | 1.12650 | 10.680 | .02810 | -.00460 | .00790 | 1.65350 |
| 970 | 23.616 | -1.81760 | 1.04450 | .57850 | -.00070 | 1.17710 | 11.340 | .02790 | -.00480 | .00790 | 1.53340 |
| 979 | 25.660 | -1.81410 | 1.01890 | .61430 | .07080 | 1.18770 | 11.350 | .03650 | -.00480 | .00180 | 1.53340 |
| 978 | 26.817 | -1.77430 | 1.01450 | .63430 | .07080 | 1.18770 | 11.350 | .03650 | -.00480 | .00180 | 1.53340 |
| 978 | .00855 | .00855 | .00345 | .00345 | -.01065 | .06518 | -.00924 | .00024 | .00012 | .00012 | 1.5315 |

RUN NO. 664.0 RVAL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|---------|----------|---------|--------|---------|---------|--------|--------|---------|--------|---------|
| 1.054 | .065 | -1.85270 | -.04380 | .14140 | -.05520 | -.04360 | 14.150 | .02560 | -.00260 | .00360 | 1.80970 |
| 1.051 | 2.178 | -1.86470 | .09680 | .14550 | -.02540 | .10220 | 14.170 | .02890 | -.00230 | .00410 | 1.66490 |
| 1.052 | 4.290 | -1.84358 | .28650 | .16040 | -.00740 | .25950 | 14.290 | .02470 | -.00120 | .00350 | 1.2460 |
| 1.049 | 6.409 | -1.85310 | .45470 | .18020 | -.01690 | .36450 | 14.030 | .04150 | -.00010 | .00260 | 1.82340 |
| 1.048 | 8.559 | -1.84490 | .60400 | .20580 | -.02610 | .48020 | 13.580 | .05000 | -.00010 | .00260 | 2.20970 |
| 1.038 | 10.781 | -1.82450 | .67090 | .24390 | -.03650 | .59570 | 13.540 | .02630 | -.00010 | .00490 | 2.5680 |
| 1.047 | 12.864 | -1.82450 | .67090 | .29080 | -.04410 | .71860 | 13.420 | .02600 | -.00020 | .00490 | 2.5680 |
| 1.042 | 14.917 | -1.81760 | .72840 | .34830 | -.05190 | .84210 | 13.400 | .03050 | -.00100 | .00400 | 2.5630 |
| 1.049 | 17.288 | -1.81210 | .83970 | .40620 | -.05670 | .96370 | 13.400 | .03680 | -.00030 | .00460 | 1.66330 |
| 1.046 | 19.4416 | -1.80440 | .98330 | .46620 | -.06300 | 1.08820 | 13.270 | .03910 | -.00090 | .00400 | 1.66330 |
| 1.044 | 21.575 | -1.80090 | 1.09730 | .56370 | -.06630 | 1.19980 | 13.170 | .04370 | -.00150 | .00460 | 1.66330 |
| 1.044 | 23.697 | -1.80760 | 1.12430 | .63769 | -.06630 | 1.26480 | 13.240 | .02080 | -.01000 | .00460 | 1.66330 |
| 1.051 | 25.769 | -1.82970 | 1.11810 | .68560 | -.07980 | 1.30320 | 13.220 | .02080 | -.01000 | .00460 | 1.66330 |
| 1.048 | 26.753 | -1.75710 | 1.11630 | .71080 | -.08190 | 1.31680 | 13.230 | .08040 | -.01470 | .00460 | 1.66330 |
| 1.048 | .00218 | .00218 | .00446 | .00446 | -.01363 | .06740 | .00033 | .00021 | -.00002 | .00002 | 1.66330 |

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OF POOR QUALITY.

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 986.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

RUN NO. 73/ 0 R/V/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.100 | .086 | -1.90270 | -.03950 | .13950 | -.04960 | -.03930 | .13950 | .03480 | -.00090 | .00370 | -.27830 |
| 1.100 | 2.170 | -1.86700 | .09320 | .14470 | -.04990 | .10460 | .14060 | .02700 | -.00096 | .00360 | .68550 |
| 1.100 | 4.260 | -1.83950 | .28900 | .15990 | -.04300 | .24630 | .14240 | .01950 | -.00130 | .00320 | 1.43150 |
| 1.098 | 6.415 | -1.84620 | .34270 | .18030 | -.04740 | .36670 | .14090 | .03170 | -.00030 | .00260 | 1.91030 |
| 1.098 | 8.559 | -1.83620 | .44240 | .20860 | -.02620 | .47320 | .13770 | .03070 | -.00040 | .00240 | 2.16600 |
| 1.099 | 10.719 | -1.82930 | .53000 | .24100 | -.03470 | .56910 | .13390 | .03110 | .03050 | .00470 | 2.26470 |
| 1.098 | 12.871 | -1.81090 | .66810 | .28750 | -.04440 | .71340 | .13190 | .02980 | -.00100 | .00370 | 2.34670 |
| 1.097 | 15.034 | -1.85360 | .78200 | .34790 | -.05620 | .84540 | .13320 | .04060 | -.00360 | -.00080 | 2.24750 |
| 1.097 | 17.249 | -1.90770 | .88350 | .41310 | -.06270 | .96930 | .13260 | .04290 | -.00090 | .00090 | 2.13640 |
| 1.099 | 19.427 | -1.88760 | .97340 | .48410 | -.06300 | 1.07900 | .13260 | .03770 | -.00030 | .00110 | 2.04060 |
| 1.099 | 21.561 | -1.87340 | 1.04430 | .55550 | -.06330 | 1.17640 | .13250 | .03810 | .00700 | .00070 | 1.87980 |
| 1.099 | 23.694 | -1.86710 | 1.10860 | .62710 | -.05640 | 1.25000 | .13190 | .04350 | .00260 | .00070 | 1.75660 |
| 1.098 | 25.782 | -1.82990 | 1.13330 | .69640 | -.04184 | 1.32180 | .13050 | .02890 | .00600 | .00400 | 1.59370 |
| 1.098 | 26.770 | -1.76890 | 1.14440 | .72180 | -.03250 | 1.34690 | .12900 | .01830 | .00910 | .00430 | 1.46560 |
| 1.098 | GRADIENT | .01517 | .06364 | .08510 | -.01251 | .06627 | .00083 | -.00364 | -.00010 | -.00012 | .48555 |

RUN NO. 76/ 0 R/V/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|--------|---------|---------|--------|---------|
| 1.150 | .050 | -1.88070 | -.02810 | .14340 | -.02790 | -.02790 | .14340 | .02990 | -.00300 | .00320 | -.15680 |
| 1.150 | 2.150 | -1.86420 | .10150 | .14660 | .01370 | .10710 | .14460 | .03060 | -.00230 | .00320 | .68360 |
| 1.148 | 4.270 | -1.85000 | .22530 | .16100 | -.06880 | .23670 | .14380 | .02900 | -.00190 | .00320 | 1.39950 |
| 1.148 | 6.402 | -1.85520 | .34420 | .18110 | -.02840 | .35930 | .14190 | .03310 | -.00060 | .00300 | 1.88410 |
| 1.148 | 8.549 | -1.84070 | .44910 | .20820 | -.03770 | .47510 | .13910 | .02920 | -.00090 | .00300 | 2.15760 |
| 1.148 | 10.714 | -1.82760 | .55220 | .24130 | -.04280 | .58750 | .13450 | .03090 | -.00100 | .00300 | 2.28040 |
| 1.147 | 12.865 | -1.82330 | .68280 | .28736 | -.05080 | .71010 | .13250 | .03230 | -.00130 | .00450 | 2.30760 |
| 1.148 | 15.022 | -1.85960 | .77910 | .34520 | -.06390 | .83810 | .13250 | .03940 | -.00200 | .00020 | 2.24530 |
| 1.149 | 17.237 | -1.97830 | .87730 | .40960 | -.07100 | .95350 | .13300 | .03940 | -.00610 | .00020 | 2.12740 |
| 1.149 | 19.411 | -1.89990 | .95820 | .47660 | -.07480 | 1.06210 | .13110 | .03750 | .00170 | .00240 | 2.01020 |
| 1.151 | 21.585 | -1.86230 | 1.01950 | .54150 | -.06470 | 1.14720 | .12880 | .02260 | .00740 | .00660 | 1.88270 |
| 1.150 | 23.681 | -1.86080 | 1.07710 | .61070 | -.05640 | 1.23140 | .12610 | .01820 | .00930 | .00540 | 1.76340 |
| 1.150 | 25.779 | -1.93030 | 1.14210 | .68060 | -.04800 | 1.30630 | .12490 | .02020 | .00950 | .00230 | 1.64850 |
| 1.146 | 26.787 | -1.77950 | 1.13830 | .71020 | -.04180 | 1.33820 | .12100 | .02370 | .00860 | .00280 | 1.60370 |
| 1.146 | GRADIENT | .02256 | .06019 | .08418 | -.01233 | .06286 | .00008 | -.00021 | -.00026 | .00000 | .37893 |

(RE7014) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 EDFLAR = -7.170

TABULATED DATA - 0A161 (ARC. 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITTER

REFERENCE DATA

SREF = 2890.0000 SQ. FT. XMRP = 1076.6800 IN. X0
LREF = 47.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0080 IN. Z0
SCALE = .0300

RUN NO. 894 0 R/V/L = 4.26 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.201 | .084 | -1.89680 | -.04890 | .14560 | .03430 | -.01880 | .14560 | -.06390 | -.00260 | .08270 | -.12540 |
| 1.202 | 2.153 | -1.87610 | .10180 | .14950 | .09000 | .10730 | .14560 | -.03490 | -.00200 | .00290 | .68050 |
| 1.199 | 4.262 | -1.87440 | .22840 | .16200 | -.01380 | .23380 | .14500 | .03880 | -.00990 | .00330 | 1.37300 |
| 1.193 | 6.390 | -1.85460 | .33720 | .18200 | -.03250 | .35840 | .14340 | .02700 | -.00070 | .00310 | 1.89270 |
| 1.196 | 8.549 | -1.82470 | .45020 | .20920 | -.04930 | .47630 | .14000 | .02270 | -.00190 | .00340 | 2.15210 |
| 1.192 | 10.711 | -1.81900 | .52630 | .24220 | -.05160 | .58770 | .13540 | .02940 | -.00140 | .00340 | 2.29330 |
| 1.197 | 12.661 | -1.82660 | .60210 | .28670 | -.06130 | .70980 | .13410 | .03680 | -.00100 | .00290 | 2.21170 |
| 1.202 | 15.014 | -1.86350 | .76080 | .34400 | -.07010 | .82400 | .13520 | .04510 | -.00150 | .00280 | 2.09690 |
| 1.200 | 17.231 | -1.88200 | .84330 | .40860 | -.07820 | .94010 | .13400 | .05380 | -.00180 | .00290 | 1.99860 |
| 1.197 | 19.408 | -1.88700 | .94270 | .47440 | -.08150 | 1.07370 | .13000 | .06380 | -.00200 | .00260 | 1.87270 |
| 1.197 | 21.553 | -1.86270 | 1.06700 | .53750 | -.08370 | 1.23030 | .12560 | .07400 | -.00100 | .00260 | 1.76270 |
| 1.197 | 23.682 | -1.86750 | 1.12200 | .60530 | -.08610 | 1.29400 | .12180 | .08300 | -.00070 | .00260 | 1.65380 |
| 1.195 | 25.784 | -1.83630 | 1.12520 | .67280 | -.04990 | 1.32090 | .11980 | .09300 | -.00090 | .00220 | 1.80230 |
| 1.197 | 26.811 | -1.81110 | 1.12520 | .70280 | -.04990 | 1.32090 | .11980 | .09300 | -.00090 | .00220 | 1.80230 |
| 1.197 | 0.0544 | .05760 | .05760 | .00393 | -.01151 | .06028 | -.00014 | .00120 | .00041 | .00014 | .35849 |

RUN NO. 864 0 R/V/L = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|--------|---------|---------|---------|--------|---------|--------|---------|
| 1.299 | .039 | -1.85990 | -.01010 | .14730 | .02423 | -.01000 | .14730 | .02980 | -.00310 | .00210 | -.09620 |
| 1.299 | 2.131 | -1.86150 | .09890 | .15000 | .02200 | .10440 | .14620 | .02740 | -.00270 | .00260 | .65230 |
| 1.293 | 4.296 | -1.86060 | .21010 | .16050 | -.01820 | .22140 | .14460 | .03240 | -.00150 | .00300 | 1.30890 |
| 1.296 | 6.364 | -1.86680 | .32180 | .17970 | -.03730 | .33970 | .14230 | .03480 | -.00070 | .00350 | 1.79080 |
| 1.298 | 8.512 | -1.84080 | .42620 | .20440 | -.04980 | .45170 | .13910 | .03160 | -.00070 | .00320 | 2.08450 |
| 1.295 | 10.673 | -1.84050 | .53940 | .23980 | -.06440 | .57020 | .13650 | .03760 | -.00010 | .00350 | 2.23180 |
| 1.295 | 12.821 | -1.84080 | .64020 | .28470 | -.06440 | .69740 | .13560 | .04220 | .00010 | .00350 | 2.24870 |
| 1.295 | 14.976 | -1.85360 | .73450 | .33690 | -.08360 | .79830 | .13470 | .03450 | .00100 | .00350 | 2.16870 |
| 1.296 | 17.182 | -1.90540 | .82460 | .39410 | -.08880 | .90420 | .13300 | .03410 | .00100 | .00350 | 2.09210 |
| 1.294 | 19.364 | -1.89810 | .90250 | .45660 | -.09100 | 1.00290 | .13170 | .02840 | .00250 | .00330 | 1.86780 |
| 1.293 | 21.520 | -1.86540 | .97930 | .52480 | -.09100 | 1.10410 | .12660 | .02860 | .00330 | .00450 | 1.75780 |
| 1.291 | 23.641 | -1.86280 | 1.04150 | .59250 | -.08520 | 1.19170 | .12660 | .02860 | .00330 | .00450 | 1.65130 |
| 1.295 | 25.757 | -1.82070 | 1.09670 | .66410 | -.07830 | 1.27630 | .12160 | .02700 | .00440 | .00440 | 1.84100 |
| 1.295 | 26.799 | -1.82750 | 1.12030 | .69970 | -.07350 | 1.31590 | .11950 | .02700 | .00440 | .00440 | 1.84100 |
| 1.295 | 0.0017 | .05247 | .05247 | .00315 | -.01006 | .05814 | -.00064 | .00062 | .00036 | .00021 | .32814 |

TABULATED DATA - 0A161 (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER

(RET014) (02 AUG 78)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEE = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0500

RUN NO. 329/ 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CX | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|----------|--------|---------|---------|---------|---------|--------|--------|---------|
| 1.750 | -1.155 | -2.40120 | -0.01940 | .13510 | .00130 | -.01970 | .13510 | .03180 | .00010 | .00080 | -1.4330 |
| 1.750 | .065 | -2.41380 | -0.04900 | .13490 | .00130 | -.01890 | .13490 | .03180 | .00010 | .00080 | -1.4090 |
| 1.750 | 1.821 | -2.40490 | .06340 | .13440 | -.01140 | .06760 | .13230 | .03070 | .00060 | .00080 | .47160 |
| 1.750 | 3.885 | -2.40710 | .14940 | .13960 | -.02400 | .15750 | .12920 | .02900 | .00080 | .00080 | 1.06310 |
| 1.750 | 5.944 | -2.40770 | .23080 | .15180 | -.03620 | .24520 | .12700 | .02860 | .00150 | .00070 | 1.52060 |
| 1.750 | 10.128 | -2.40770 | .38990 | .19590 | -.05390 | .41730 | .12450 | .02760 | .00090 | .00090 | 1.98540 |
| 1.750 | 12.127 | -2.40590 | .46320 | .22410 | -.05940 | .50000 | .12180 | .02770 | .00170 | .00120 | 2.06680 |
| 1.750 | 14.167 | -2.40650 | .53700 | .25760 | -.06310 | .58370 | .11830 | .03030 | .00190 | .00140 | 2.08500 |
| 1.750 | 16.285 | -2.40480 | .61080 | .29840 | -.06640 | .66980 | .11480 | .02940 | .00150 | .00140 | 2.04910 |
| 1.750 | 18.379 | -2.40420 | .68560 | .34460 | -.06950 | .75520 | .11090 | .02680 | .00410 | .00150 | 1.98940 |
| 1.750 | 20.395 | -2.40090 | .76030 | .39720 | -.07370 | .85110 | .10730 | .02740 | .00550 | .00140 | 1.91410 |
| 1.750 | 22.471 | -2.39740 | .82960 | .45700 | -.07710 | .94130 | .10520 | .02650 | .00640 | .00150 | 1.81950 |
| 1.750 | 24.528 | -2.39430 | .89720 | .52190 | -.07960 | 1.03290 | .10240 | .02590 | .00760 | .00150 | 1.71900 |
| 1.750 | 25.544 | -2.39120 | .93030 | .55620 | -.08150 | 1.07920 | .10070 | .02400 | .00820 | .00160 | 1.67260 |
| GRADIENT | | .00007 | .04268 | .00106 | -.00645 | .04501 | -.00142 | -.00070 | .00018 | .00000 | .30765 |

RUN NO. 332/ 0 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CX | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|----------|--------|---------|---------|---------|---------|--------|---------|---------|
| 1.997 | -1.142 | -2.93980 | -0.02450 | .12980 | -.00730 | -.02480 | .12980 | .03610 | .00000 | .00100 | -1.8890 |
| 1.997 | 1.764 | -2.93520 | .04920 | .12920 | -.01610 | .05320 | .12660 | .03630 | .00080 | .00080 | .38410 |
| 1.997 | 3.734 | -2.93480 | .12370 | .13190 | -.02500 | .13200 | .12360 | .03430 | .00100 | .00080 | .93730 |
| 1.997 | 6.125 | -2.93560 | .20770 | .14340 | -.03350 | .22180 | .12040 | .03300 | .00220 | .00050 | 1.44847 |
| 1.997 | 10.252 | -2.93310 | .32480 | .16180 | -.04060 | .30150 | .11580 | .03300 | .00230 | .00080 | 1.95100 |
| 1.997 | 14.386 | -2.93350 | .41680 | .24500 | -.04780 | .38150 | .10890 | .03480 | .00360 | .00120 | 2.10940 |
| 1.997 | 16.537 | -2.93080 | .59500 | .28610 | -.05110 | .55150 | .10490 | .03190 | .00530 | .00140 | 2.07950 |
| 1.997 | 18.625 | -2.92800 | .66550 | .33230 | -.05430 | .73680 | .10230 | .02970 | .00670 | .00110 | 2.00300 |
| 1.997 | 20.663 | -2.92560 | .74220 | .38350 | -.05740 | .83050 | .09800 | .02780 | .00830 | .00120 | 1.92470 |
| 1.997 | 22.719 | -2.92250 | .82800 | .43620 | -.06100 | .89980 | .09620 | .02780 | .00910 | .00110 | 1.81730 |
| 1.997 | 24.800 | -2.91920 | .88360 | .50990 | -.06430 | 1.00970 | .09190 | .02580 | .01090 | .00150 | 1.73210 |
| 1.997 | 29.358 | -2.91760 | .88360 | .51999 | -.06530 | 1.02110 | .09120 | .02570 | .01100 | .00140 | 1.69970 |
| GRADIENT | | .09103 | .03827 | .00055 | -.00457 | .04049 | -.00160 | -.00098 | .00026 | -.00005 | .29079 |

(RE7014) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = 7.170

TABULATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-084 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 50. FT. XMRP = 1076.6800 IN. XO
LREF = 474.8600 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 348/ 0 RVAL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | -.133 | -3.03390 | -.03420 | -.01200 | -.03440 | .12028 | .04740 | -.00328 | .00140 | -.28410 |
| 2.250 | 1.849 | -3.03220 | .02850 | -.01740 | .03230 | .11798 | .04280 | -.00210 | .00120 | .23990 |
| 2.250 | 3.900 | -3.03120 | .09140 | -.02280 | .09550 | .11530 | .03980 | -.00140 | .00120 | .75040 |
| 2.250 | 5.951 | -3.03130 | .15320 | -.02700 | .16580 | .11270 | .03790 | -.00040 | .00110 | 1.18520 |
| 2.250 | 8.005 | -3.03120 | .21630 | -.02920 | .23395 | .10980 | .03790 | .00000 | .00130 | 1.53090 |
| 2.250 | 10.056 | -3.02950 | .28130 | -.03090 | .30470 | .10740 | .03680 | .00030 | .00160 | 1.76900 |
| 2.250 | 12.087 | -3.02800 | .34910 | -.03350 | .37950 | .10500 | .03620 | .00070 | .00180 | 1.91710 |
| 2.250 | 14.162 | -3.02690 | .41450 | -.03680 | .45320 | .10200 | .03510 | .00130 | .00200 | 1.97580 |
| 2.250 | 16.289 | -3.02620 | .48290 | -.04080 | .53210 | .09920 | .03490 | .00280 | .00210 | 1.97490 |
| 2.250 | 18.364 | -3.02580 | .54848 | -.04320 | .60980 | .09660 | .03490 | .00450 | .00190 | 1.93210 |
| 2.250 | 20.375 | -3.02580 | .61350 | -.04620 | .68920 | .09360 | .03490 | .00580 | .00180 | 1.87230 |
| 2.250 | 22.446 | -3.01980 | .67780 | -.04970 | .77080 | .09060 | .02940 | .00760 | .00190 | 1.79250 |
| 2.250 | 24.498 | -3.01580 | .74380 | -.05390 | .85720 | .08720 | .03000 | .00760 | .00280 | 1.71050 |
| 2.250 | 25.517 | -3.01430 | .77600 | -.05690 | .90110 | .08630 | .03030 | .00790 | .00260 | 1.66490 |
| 2.250 | GRADIENT | .00067 | .03114 | -.00268 | .03320 | -.00182 | -.00188 | .00045 | -.00005 | -.25646 |

RUN NO. 417/ 0 RVAL = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | 1.117 | -1.94050 | -.02910 | -.01750 | -.02690 | .11540 | .04370 | -.00050 | .00130 | -.25240 |
| 2.499 | 2.151 | -1.95020 | .03210 | -.02800 | .03640 | .11270 | .04820 | .00030 | .00110 | .28190 |
| 2.499 | 4.178 | -1.95950 | .08160 | -.02330 | .08998 | .10990 | .03830 | .00120 | .00100 | .70290 |
| 2.499 | 6.214 | -1.96710 | .14050 | -.02530 | .15298 | .10660 | .03660 | .00190 | .00100 | 1.14640 |
| 2.499 | 8.255 | -1.97330 | .20200 | -.02440 | .21910 | .10350 | .03580 | .00270 | .00120 | 1.50940 |
| 2.499 | 10.291 | -1.97840 | .26500 | -.02780 | .28780 | .10150 | .03540 | .00270 | .00170 | 1.89760 |
| 2.499 | 12.332 | -1.98100 | .33140 | -.02960 | .36100 | .09980 | .03450 | .00280 | .00210 | 1.75168 |
| 2.499 | 14.379 | -1.98390 | .40030 | -.03210 | .43830 | .09890 | .03490 | .00350 | .00260 | 1.96810 |
| 2.499 | 16.427 | -1.98390 | .46940 | -.03500 | .51310 | .09470 | .03290 | .00450 | .00250 | 1.97310 |
| 2.499 | 18.458 | -1.98180 | .52790 | -.03750 | .58730 | .09230 | .03050 | .00520 | .00250 | 1.93020 |
| 2.499 | 20.505 | -1.97800 | .59340 | -.04060 | .66510 | .08810 | .02830 | .00560 | .00270 | 1.86330 |
| 2.499 | 22.548 | -1.97500 | .65350 | -.04410 | .74400 | .08748 | .02980 | .00530 | .00270 | 1.78950 |
| 2.499 | 24.590 | -1.95960 | .71580 | -.04720 | .82480 | .08200 | .02910 | .00650 | .00260 | 1.69830 |
| 2.499 | 25.613 | -1.95440 | .74480 | -.04950 | .86630 | .08200 | .02890 | .00620 | .00280 | 1.65330 |
| 2.499 | GRADIENT | -.00468 | .02726 | -.00143 | .02925 | -.00135 | -.00133 | .00042 | -.00007 | -.23522 |

TABULATED DATA - 0A161 (ARC 11-97-87-09A)
ARC 11-97-87-09A 0A161 ORBITER

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6880 IN. XC
LREF = 474.8000 IN. YMRP = .0800 IN. YO
RREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 427/ 0 RIV/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|--------|--------|---------|---------|--------|--------|--------|--------|---------|
| 3.499 | 1.174 | -1.97800 | -0.3890 | 1.0270 | 0.3880 | -0.2280 | -0.3880 | 1.0270 | 0.4020 | 0.0050 | 0.0080 | 3.7890 |
| 3.499 | 1.842 | -1.99090 | -0.0650 | 0.9970 | 0.1010 | -0.2230 | 0.1010 | 0.9940 | 0.3640 | 0.0000 | 0.0110 | 0.6520 |
| 3.499 | 3.868 | -1.99650 | 0.3430 | 0.9980 | 0.2170 | -0.2170 | 0.2170 | 0.9970 | 0.3710 | 0.0080 | 0.0130 | 5.370 |
| 3.499 | 5.902 | -2.00840 | 1.0980 | 1.0390 | 1.1630 | -0.2160 | 1.1630 | 0.9200 | 0.3300 | 0.0100 | 0.0160 | 10.1860 |
| 3.499 | 7.924 | -2.01230 | 1.6060 | 1.1250 | 1.7310 | -0.2160 | 1.7310 | 0.9200 | 0.3440 | 0.0150 | 0.0190 | 14.1510 |
| 3.499 | 9.947 | -2.01770 | 2.1540 | 1.2850 | 2.3470 | -0.2170 | 2.3470 | 0.8840 | 0.3070 | 0.0130 | 0.0240 | 17.590 |
| 3.499 | 11.972 | -2.02270 | 2.7350 | 1.4750 | 2.9860 | -0.2220 | 2.9860 | 0.8670 | 0.3360 | 0.0190 | 0.0290 | 20.930 |
| 3.499 | 14.009 | -2.02700 | 3.3770 | 1.7420 | 3.7020 | -0.2360 | 3.7020 | 0.8390 | 0.2940 | 0.0300 | 0.0330 | 24.170 |
| 3.499 | 16.039 | -2.03100 | 3.9680 | 2.0330 | 4.3790 | -0.2560 | 4.3790 | 0.8390 | 0.3050 | 0.0290 | 0.0330 | 27.410 |
| 3.499 | 18.066 | -2.03420 | 4.5160 | 2.3640 | 5.0630 | -0.2740 | 5.0630 | 0.8140 | 0.2960 | 0.0320 | 0.0320 | 30.650 |
| 3.499 | 20.099 | -2.03760 | 5.1650 | 2.7680 | 5.8050 | -0.2920 | 5.8050 | 0.7980 | 0.2880 | 0.0450 | 0.0300 | 33.890 |
| 3.499 | 22.135 | -2.04120 | 5.7570 | 3.2190 | 6.5490 | -0.3160 | 6.5490 | 0.7830 | 0.2720 | 0.0520 | 0.0290 | 37.130 |
| 3.499 | 24.167 | -2.04480 | 6.3500 | 3.7320 | 7.3250 | -0.3400 | 7.3250 | 0.7710 | 0.2570 | 0.0530 | 0.0280 | 40.370 |
| 3.499 | 26.181 | -2.04850 | 6.9560 | 4.0150 | 7.7350 | -0.3580 | 7.7350 | 0.7630 | 0.2480 | 0.0530 | 0.0280 | 43.610 |
| 3.499 | 28.181 | -2.05230 | 7.5700 | 4.0071 | 8.0027 | -0.3627 | 8.0027 | 0.7630 | 0.2480 | 0.0530 | 0.0280 | 46.850 |
| 3.499 | 30.181 | -2.05610 | 8.1900 | 0.0071 | 0.0027 | -0.3627 | 0.0027 | 0.0071 | 0.0075 | 0.0032 | 0.0012 | 50.090 |

RUN NO. 427/ 0 RIV/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|----------|---------|--------|--------|---------|---------|--------|--------|--------|--------|--------|
| 3.499 | 1.174 | -1.97800 | -0.4340 | 1.0270 | 0.4330 | -0.2370 | -0.4370 | 1.0270 | 0.3400 | 0.0040 | 0.0040 | 4.5390 |
| 3.499 | 1.842 | -1.99090 | -0.0120 | 0.9140 | 0.0910 | -0.2270 | 0.0170 | 0.9140 | 0.3670 | 0.0040 | 0.0100 | 7.770 |
| 3.499 | 3.868 | -1.99650 | 0.4300 | 0.9060 | 0.0860 | -0.2140 | 0.4900 | 0.8750 | 0.2920 | 0.0040 | 0.0110 | 10.990 |
| 3.499 | 5.902 | -2.00840 | 0.9150 | 0.9400 | 0.9400 | -0.2090 | 1.0070 | 0.8410 | 0.2920 | 0.0100 | 0.0160 | 14.230 |
| 3.499 | 7.924 | -2.01230 | 1.4040 | 1.0250 | 1.0250 | -0.1950 | 1.0770 | 0.8220 | 0.3130 | 0.0120 | 0.0190 | 17.470 |
| 3.499 | 9.947 | -2.01770 | 1.9030 | 1.1530 | 1.1530 | -0.1890 | 1.2070 | 0.8070 | 0.3230 | 0.0150 | 0.0240 | 20.710 |
| 3.499 | 11.972 | -2.02270 | 2.4440 | 1.3330 | 1.3330 | -0.1880 | 1.3360 | 0.7970 | 0.3440 | 0.0260 | 0.0260 | 23.950 |
| 3.499 | 14.009 | -2.02700 | 3.0470 | 1.5680 | 1.5680 | -0.1960 | 1.5360 | 0.7840 | 0.2870 | 0.0240 | 0.0280 | 27.190 |
| 3.499 | 16.039 | -2.03100 | 3.6160 | 1.8440 | 1.8440 | -0.2070 | 1.6440 | 0.7690 | 0.3030 | 0.0210 | 0.0310 | 30.430 |
| 3.499 | 18.066 | -2.03420 | 4.1800 | 2.1570 | 2.1570 | -0.2140 | 1.7570 | 0.7550 | 0.2800 | 0.0340 | 0.0340 | 33.670 |
| 3.499 | 20.099 | -2.03760 | 4.7640 | 2.5350 | 2.5350 | -0.2240 | 1.8700 | 0.7440 | 0.2800 | 0.0310 | 0.0320 | 36.910 |
| 3.499 | 22.135 | -2.04120 | 5.3300 | 2.9620 | 2.9620 | -0.2360 | 1.9830 | 0.7350 | 0.2530 | 0.0360 | 0.0360 | 40.150 |
| 3.499 | 24.167 | -2.04480 | 5.9360 | 3.4560 | 3.4560 | -0.2570 | 2.0960 | 0.7250 | 0.2460 | 0.0440 | 0.0310 | 43.390 |
| 3.499 | 26.181 | -2.04850 | 6.1950 | 3.7100 | 3.7100 | -0.2630 | 2.1840 | 0.7230 | 0.2500 | 0.0460 | 0.0300 | 46.630 |
| 3.499 | 28.181 | -2.05230 | 6.9210 | 0.0124 | 0.0124 | -0.0057 | 0.02294 | 0.0119 | 0.0119 | 0.0020 | 0.0017 | 49.870 |

TABLATED DATA - 0A161 (ARC 11-97-87-67-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
A1LRON = .000 EBFAP = -7.170

REFERENCE DATA
SREF = 2690.0000 SQ.FT.
LREF = 474.8000 IN.
BREF = 936.6800 IN.
SCALE = .0300

RUN NO. 31/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|--------|---------|--------|--------|---------|---------|--------|---------|---------|----------|
| .598 | .075 | .19450 | -.05930 | .05250 | .03250 | -.05920 | .09260 | .00210 | -.00030 | -.00010 | -1.12950 |
| .598 | 2.125 | .20690 | .03470 | .05240 | .03320 | .03650 | .05110 | .00310 | .00000 | -.00010 | .66220 |
| .598 | 4.183 | .20850 | .13180 | .05340 | .03310 | .13550 | .04570 | .00310 | -.00020 | -.00030 | 2.37830 |
| .597 | 6.253 | .21040 | .22950 | .06160 | .03090 | .23480 | .03620 | .00010 | -.00050 | -.00010 | 3.72510 |
| .596 | 8.344 | .21320 | .33820 | .07340 | .02670 | .34530 | .02350 | .00340 | .00010 | .00020 | 4.60830 |
| .597 | 10.444 | .21300 | .44560 | .09170 | .02440 | .45880 | .00870 | .00040 | .00040 | .00040 | 4.90240 |
| .597 | 12.540 | .20970 | .55580 | .11850 | .02470 | .56820 | -.00500 | .00370 | .00070 | -.00040 | 4.99090 |
| .597 | 14.656 | .22340 | .65290 | .16590 | .02370 | .67260 | -.00480 | .00520 | .00080 | -.00040 | 3.93950 |
| .597 | 16.772 | .21590 | .74560 | .22280 | .01980 | .77820 | .06180 | .00780 | .00090 | -.00240 | 3.34660 |
| .597 | 18.888 | .21300 | .84640 | .29410 | .01170 | .89600 | .09430 | .00820 | .00010 | -.00250 | 2.87750 |
| .597 | 20.999 | .20210 | .94270 | .36740 | .00680 | 1.01170 | .07620 | .00970 | .00020 | .00480 | 2.56580 |
| .596 | 23.088 | .20130 | 1.02560 | .44100 | .01300 | 1.11640 | .00330 | .00400 | .00020 | -.00480 | 2.32560 |
| .597 | 25.168 | .20700 | 1.06140 | .50120 | .02300 | 1.17380 | .00230 | .01050 | .00040 | -.00410 | 2.11760 |
| .599 | 26.147 | .16910 | 1.04570 | .51590 | .05630 | 1.16600 | .00230 | .01230 | .00050 | -.00330 | 2.02690 |
| | GRADIENT | .00343 | .04652 | .00071 | .00015 | .04740 | -.00168 | .00024 | .00002 | -.00005 | .85390 |

RUN NO. 35/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|--------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| .699 | .064 | .19000 | -.06330 | .05380 | .03570 | -.06330 | .05390 | .00720 | .00020 | .00010 | -1.17700 |
| .698 | 2.125 | .21190 | .03360 | .05350 | .03600 | .03580 | .05220 | .00110 | -.00050 | -.00010 | .63260 |
| .699 | 4.196 | .20990 | .13170 | .05390 | .03530 | .13550 | .04610 | .00350 | -.00010 | -.00020 | 2.35950 |
| .696 | 6.267 | .21800 | .23970 | .06390 | .03170 | .24530 | .03730 | .00290 | -.00050 | -.00010 | 3.75150 |
| .697 | 8.396 | .21590 | .35410 | .07770 | .02650 | .36160 | .02520 | .00500 | .00020 | .00010 | 4.46150 |
| .697 | 10.508 | .21490 | .46570 | .10440 | .02100 | .47690 | .01770 | .00420 | .00040 | .00140 | 4.90960 |
| .697 | 12.608 | .22270 | .55430 | .14180 | .02410 | .57210 | .01740 | .00530 | .00010 | .00080 | 3.42420 |
| .695 | 14.734 | .21410 | .64730 | .18900 | .02280 | .67410 | .01620 | .00560 | .00030 | -.00210 | 2.97060 |
| .697 | 16.856 | .21410 | .73950 | .24900 | .01990 | .78000 | .02380 | .00560 | .00010 | -.00410 | 2.65410 |
| .697 | 18.989 | .20880 | .83140 | .32080 | .00780 | .90940 | .02340 | .00940 | .00020 | -.00560 | 2.42240 |
| .695 | 21.115 | .19560 | .94100 | .38950 | .01270 | 1.01780 | .02340 | .01280 | .00020 | -.00630 | 2.20940 |
| .699 | 23.215 | .19820 | .98830 | .46180 | .02900 | 1.09380 | .02170 | .01250 | .00030 | -.00550 | 2.08910 |
| .697 | 25.271 | .21450 | .46760 | .46760 | .06560 | 1.11640 | .02320 | .00230 | -.00230 | -.00550 | 1.90670 |
| .699 | 26.243 | .18330 | .95830 | .50260 | .09370 | 1.08180 | .02780 | .00270 | -.00290 | -.00690 | 1.85489 |
| | GRADIENT | .00454 | .04719 | .00051 | -.00010 | .04811 | -.00189 | -.00097 | -.00007 | -.00007 | .85489 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITTER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
A-ILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| .799 | .043 | .19230 | -.07270 | .04360 | -.07270 | .09700 | .00170 | -.00010 | -.00010 | -.00010 | -1.27610 |
| .798 | 2.122 | .21540 | .03010 | .04250 | .03210 | .05490 | .00110 | -.00030 | -.00020 | -.00020 | .53570 |
| .798 | 4.227 | .22060 | .13660 | .04100 | .14060 | .04950 | -.00070 | -.00040 | -.00050 | -.00050 | 2.28760 |
| .798 | 6.322 | .22600 | .25120 | .03290 | .25760 | .04410 | .00000 | -.00040 | -.00020 | -.00020 | 3.48020 |
| .798 | 8.439 | .23240 | .36030 | .02530 | .37030 | .04130 | -.00010 | -.00020 | -.00020 | -.00110 | 3.78330 |
| .798 | 10.566 | .23900 | .45736 | .02550 | .47260 | .03900 | .00240 | -.00030 | -.00030 | -.00120 | 3.66130 |
| .797 | 12.667 | .24390 | .53990 | .02888 | .56140 | .03960 | .00180 | -.00060 | -.00060 | -.00180 | 3.33180 |
| .796 | 14.790 | .23930 | .63140 | .02150 | .66420 | .04230 | .00150 | -.00090 | -.00090 | -.00180 | 3.00060 |
| .798 | 16.939 | .23850 | .73660 | .01270 | .78480 | .04770 | .00280 | -.00220 | -.00340 | -.00340 | 2.67650 |
| .796 | 19.054 | .24300 | .81990 | .01460 | .88390 | .04630 | .00150 | -.00310 | -.00450 | -.00450 | 2.45720 |
| .801 | 21.222 | .24560 | .89930 | .05400 | .98410 | .04780 | .00480 | -.00500 | -.00500 | -.00420 | 2.24240 |
| .795 | 23.294 | .23730 | .93480 | .09690 | 1.03930 | .04780 | .00230 | -.00600 | -.00540 | -.00540 | 2.05670 |
| .798 | 25.339 | .23050 | .90600 | .11530 | 1.02920 | .05630 | .00880 | -.00520 | -.00520 | -.00520 | 1.84400 |
| .798 | 26.291 | .18400 | .87790 | .11530 | 1.08850 | .05940 | .00880 | -.00520 | -.00520 | -.00520 | 1.75630 |
| .798 | GRADIENT | .00675 | .05812 | -.00062 | .05107 | -.00180 | -.00068 | -.00007 | -.00010 | -.00010 | .95327 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| .846 | .069 | .15520 | -.07510 | .04960 | -.07500 | .06040 | -.00090 | -.00000 | -.00020 | -.00020 | -1.24370 |
| .848 | 2.134 | .21150 | .03210 | .04740 | .03440 | .05870 | -.00490 | -.00030 | -.00020 | -.00020 | .53670 |
| .849 | 4.227 | .20650 | .14270 | .04230 | .14728 | .05590 | .00110 | -.00030 | -.00050 | -.00050 | 2.14368 |
| .847 | 6.330 | .21220 | .25610 | .03290 | .26370 | .05440 | -.00050 | -.00030 | -.00020 | -.00020 | 3.08160 |
| .848 | 8.447 | .22460 | .35750 | .02870 | .36990 | .05440 | -.00110 | -.00030 | -.00020 | -.00020 | 3.30770 |
| .847 | 10.569 | .22500 | .45090 | .02830 | .46860 | .05280 | -.00030 | -.00030 | -.00040 | -.00040 | 3.27100 |
| .847 | 12.677 | .22150 | .53030 | .02960 | .56550 | .05310 | .00440 | -.00140 | -.00140 | -.00140 | 3.09250 |
| .846 | 14.810 | .23220 | .62560 | .02080 | .66228 | .05740 | .00550 | -.00170 | -.00170 | -.00170 | 2.78340 |
| .847 | 16.952 | .23410 | .72460 | .01370 | .77590 | .06040 | .00080 | -.00210 | -.00210 | -.00210 | 2.55130 |
| .849 | 19.089 | .23780 | .81160 | .01690 | .87970 | .06050 | .00380 | -.00350 | -.00370 | -.00370 | 2.35340 |
| .848 | 21.224 | .22780 | .89300 | .03150 | .96790 | .06120 | .00650 | -.00480 | -.00480 | -.00480 | 2.15970 |
| .845 | 23.350 | .22690 | .91050 | .06080 | 1.01900 | .06120 | .00610 | -.00590 | -.00590 | -.00590 | 1.97090 |
| .847 | 25.379 | .21650 | .92800 | .10270 | 1.02810 | .07160 | .02590 | -.00610 | -.00610 | -.00610 | 1.77590 |
| .848 | 26.347 | .18870 | .87990 | .11260 | 1.01720 | .07230 | .00650 | -.00250 | -.00250 | -.00250 | 1.70370 |
| .848 | GRADIENT | .01230 | .05233 | -.00149 | .05339 | -.00106 | -.00049 | -.00002 | -.00002 | -.00002 | .81373 |

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(RETONS) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-87-87-084)
ARC 11-87-87-084 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XQ
LR6F = 474.8000 IN. YMRP = .0000 IN. YO
BR6F = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|--------|--------|---------|---------|--------|---------|---------|---------|---------|
| .900 | .047 | .18810 | .06070 | .07130 | .04600 | .06050 | .07140 | -.08500 | .00010 | -.00030 | -.65080 |
| .903 | 2.151 | .20240 | .06470 | .07440 | .03480 | .06750 | .07200 | -.08070 | .00010 | -.00030 | -.86930 |
| .899 | 4.251 | .20430 | .07190 | .08340 | .02950 | .17750 | .07050 | -.09050 | .00000 | -.00030 | 2.06050 |
| .889 | 6.356 | .21080 | .07340 | .10110 | .02340 | .28250 | .07020 | .00030 | .00000 | -.00070 | 2.70460 |
| .899 | 8.472 | .21290 | .07880 | .12590 | .02170 | .38230 | .07030 | .00220 | .00090 | -.00069 | 2.92160 |
| .902 | 10.604 | .21660 | .08270 | .15850 | .01830 | .48400 | .07050 | .00190 | .00060 | -.00120 | 2.91950 |
| .898 | 12.723 | .21600 | .08460 | .19540 | .01690 | .57790 | .06990 | .00210 | .00050 | -.00100 | 2.80580 |
| .897 | 14.865 | .21910 | .08660 | .24620 | .01690 | .68820 | .07200 | -.00080 | -.00080 | -.00180 | 2.62650 |
| .901 | 17.019 | .21900 | .08770 | .30670 | .00380 | .80180 | .07530 | .00750 | -.00220 | -.00170 | 2.42810 |
| .897 | 19.153 | .22950 | .08260 | .36620 | .00890 | .90130 | .07460 | -.00420 | -.00280 | -.00070 | 2.25680 |
| .896 | 21.287 | .20930 | .08520 | .42700 | .02640 | .97980 | .07650 | .00130 | -.00130 | -.00700 | 2.07310 |
| .898 | 23.403 | .20930 | .08570 | .48570 | .06380 | 1.03450 | .08150 | .02630 | .00000 | -.00600 | 1.88790 |
| .899 | 25.440 | .19080 | .08800 | .51250 | .11050 | 1.01300 | .08360 | .02230 | .00000 | -.00200 | 1.71330 |
| .900 | 26.438 | .14500 | .08620 | .54150 | .11370 | 1.04360 | .08580 | .01700 | .00120 | -.00200 | 1.65510 |
| | GRADIENT | .09385 | .05533 | .00289 | -.00390 | .05666 | .00021 | .00107 | .00002 | -.00000 | .69251 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|--------|--------|---------|---------|--------|---------|---------|---------|---------|
| .950 | .053 | .19590 | .05990 | .10040 | .05470 | .05980 | .10040 | .00330 | .00030 | -.00070 | -.56650 |
| .951 | 2.162 | .21040 | .07320 | .10450 | .03550 | .07710 | .10170 | .00750 | .00020 | -.00080 | -.70040 |
| .948 | 4.274 | .20680 | .07730 | .11410 | .01190 | .21520 | .09830 | .00648 | -.00010 | -.00020 | 1.81760 |
| .949 | 6.394 | .21920 | .08250 | .13300 | .00150 | .33850 | .09590 | .00170 | .00030 | -.00030 | 2.44800 |
| .949 | 8.529 | .23390 | .08290 | .15900 | .00900 | .44870 | .09350 | -.00460 | .00080 | -.00200 | 2.70350 |
| .948 | 10.678 | .23170 | .08370 | .19510 | .01570 | .56060 | .09280 | -.00390 | .00090 | -.00230 | 2.73530 |
| .948 | 12.808 | .23580 | .08160 | .23460 | .01480 | .69310 | .09220 | .00270 | .00100 | -.00000 | 2.62770 |
| .947 | 14.951 | .23320 | .08270 | .28260 | .02270 | .77270 | .09650 | .00160 | .00160 | .00010 | 2.46680 |
| .948 | 17.111 | .23900 | .08240 | .35220 | .02240 | .88460 | .09520 | .00200 | .00530 | .00150 | 2.32000 |
| .950 | 19.270 | .23710 | .08350 | .42090 | .02270 | 1.00130 | .09580 | .00180 | .00640 | .00080 | 2.17080 |
| .950 | 21.391 | .20150 | .08290 | .47440 | .02290 | 1.06030 | .09420 | .01940 | .00210 | -.00490 | 1.82440 |
| .949 | 23.467 | .20930 | .08500 | .51800 | .04950 | 1.07310 | .09880 | .00500 | -.00070 | -.00050 | 1.66980 |
| .949 | 25.549 | .20980 | .08600 | .56700 | .08800 | 1.03800 | .10320 | .01350 | .00310 | -.00050 | 1.61840 |
| .949 | 26.542 | .17170 | .08510 | .59390 | .09280 | 1.12520 | .10180 | .00120 | .00070 | -.00030 | 1.61840 |
| | GRADIENT | .00258 | .06331 | .00325 | -.01014 | .06516 | .00050 | .00073 | -.00009 | .00012 | .57196 |

TABULATED DATA -- 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 4.74.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 62 / 0 RV/L = 4.26 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .980 | .053 | .17530 | .06420 | .11770 | .06330 | -.05410 | .11780 | .00270 | .00010 | -.00040 | -.54550 |
| .981 | 2.165 | .19760 | .06940 | .12040 | .04140 | .07390 | .11770 | .00420 | .00010 | -.00050 | -.57650 |
| .980 | 4.277 | .20620 | .20300 | .13250 | .01780 | .21230 | .11700 | .00130 | .00050 | -.00030 | 1.53190 |
| .980 | 6.402 | .20880 | .32870 | .15280 | .00190 | .34350 | .11520 | .00390 | .00010 | .00010 | 2.15030 |
| .979 | 8.550 | .22320 | .44408 | .18030 | .01600 | .46590 | .11220 | .00100 | .00010 | .00080 | 2.46330 |
| .983 | 10.705 | .22410 | .58230 | .24668 | -.02580 | .58300 | .11020 | .00240 | .00130 | .00180 | 2.65000 |
| .978 | 12.645 | .20960 | .65960 | .26438 | .03400 | .70180 | .11100 | .00440 | .00210 | .00100 | 2.49600 |
| .976 | 14.998 | .22620 | .75700 | .31880 | .03760 | .81370 | .11200 | .00480 | .00270 | .00060 | 2.37450 |
| .980 | 17.169 | .22070 | .85700 | .38440 | .04020 | .93230 | .11430 | .00570 | .00310 | .00030 | 2.22970 |
| .974 | 19.297 | .20580 | 1.00880 | .44150 | -.03890 | 1.03010 | .10710 | .00990 | .00310 | .00020 | 2.12130 |
| .976 | 21.443 | .20640 | 1.01830 | .50900 | .03100 | 1.12500 | .10590 | .00750 | .00250 | .00050 | 1.98170 |
| .975 | 23.539 | .23350 | 1.01830 | .56150 | .06870 | 1.15790 | .10810 | .00460 | .00150 | .00080 | 1.81350 |
| .977 | 25.615 | .16430 | .99950 | .62870 | .06270 | 1.16190 | .11468 | -.00160 | .00090 | .00030 | 1.64810 |
| .979 | 26.601 | .00731 | .06325 | .00850 | .07470 | 1.17528 | .11460 | .00208 | .00100 | -.00060 | 1.58980 |
| | GRADIENT | | | | -.01077 | .05543 | -.00019 | -.00033 | -.00009 | -.06002 | .49177 |

RUN NO. 67 / 0 RV/L = 4.27 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|--------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.062 | .059 | .20030 | .04790 | .13890 | .05820 | -.04780 | .13980 | -.00010 | .00010 | -.00020 | -.34510 |
| 1.051 | 2.174 | .21030 | .09590 | .14660 | .02568 | .10240 | .14290 | .00190 | .00010 | -.00010 | -.66070 |
| 1.050 | 4.296 | .21900 | .22780 | .16020 | .08090 | .23920 | .14270 | .00120 | .00070 | .00000 | 1.42200 |
| 1.048 | 6.428 | .22040 | .45570 | .17970 | .01650 | .36460 | .13980 | .00050 | .00060 | .00000 | 1.92890 |
| 1.049 | 8.575 | .22700 | .56400 | .20530 | .02650 | .48120 | .13500 | .00320 | .00010 | .00030 | 2.22000 |
| 1.050 | 10.737 | .23220 | .66630 | .24280 | .03830 | .59930 | .13350 | .00300 | .00020 | .00150 | 2.32270 |
| 1.050 | 12.882 | .22370 | .77450 | .29020 | .04240 | .71430 | .13440 | .00070 | .00030 | .00090 | 2.29590 |
| 1.050 | 15.047 | .22450 | .88720 | .34960 | .05120 | .83870 | .13650 | .00460 | .00080 | .00090 | 2.15550 |
| 1.051 | 17.219 | .21440 | .99580 | .41460 | .06100 | .97020 | .13440 | .00730 | .00140 | .00180 | 2.13960 |
| 1.049 | 19.384 | .21990 | .49280 | .49280 | .07440 | 1.10300 | .13440 | .00440 | .00200 | .00090 | 2.02260 |
| 1.049 | 21.534 | .20800 | .56830 | .56830 | .07850 | 1.24840 | .13090 | .00640 | .00230 | .00050 | 1.90660 |
| 1.050 | 23.645 | .21000 | .62588 | .62588 | .04480 | 1.26090 | .13420 | .00600 | .00338 | .00010 | 1.78180 |
| 1.048 | 25.721 | .21480 | .11150 | .70950 | .01960 | 1.30150 | .13150 | -.00020 | .00090 | .00090 | 1.63220 |
| 1.049 | 26.716 | .15900 | .11220 | .70950 | -.00980 | 1.32090 | .12840 | .00480 | .00010 | .00080 | 1.58360 |
| | GRADIENT | | | | -.01352 | .06773 | .00087 | -.00065 | -.00014 | .00035 | -.41701 |

(RE7019) (02 AUG 78)

PARAMETRIC DATA

BETA = .000
ALTRON = -7.170

BETA = .000
ALTRON = .000

TABULATED DATA - 0A161 (ARC 11-97-87-09+)

ARC 11-97-87-09+ 0A161E ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = 0000 IN. Y0
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0380

RUN NO. 72/ 0 RVL = 4.25 GRADIENT INTERNAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CEM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|--------|--------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.100 | .052 | .17320 | .04580 | .13750 | .05370 | .04970 | .13750 | .00300 | .00000 | -.00020 | -.33390 |
| 1.099 | 2.169 | .19820 | .09680 | .14470 | .02270 | .16220 | .14100 | .00390 | .00000 | -.00020 | .66880 |
| 1.101 | 4.290 | .21240 | .23090 | .15940 | .00510 | .24220 | .14160 | -.00090 | .00070 | -.00010 | 1.44690 |
| 1.098 | 6.416 | .21600 | .34410 | .18050 | -.01810 | .36210 | .14090 | .00140 | -.00060 | -.00030 | 1.90590 |
| 1.096 | 8.570 | .22330 | .44750 | .20660 | -.02630 | .47330 | .13760 | .00270 | .00000 | .00040 | 2.16570 |
| 1.095 | 10.789 | .22770 | .54450 | .24130 | -.03560 | .58980 | .13380 | .00310 | .00060 | .00190 | 2.29820 |
| 1.093 | 12.888 | .22950 | .67150 | .28900 | -.04680 | .71900 | .13190 | .00360 | .00080 | .00140 | 2.32360 |
| 1.091 | 15.063 | .22990 | .84100 | .34780 | -.05570 | .84750 | .13100 | .00370 | .00080 | .00140 | 2.25410 |
| 1.089 | 17.298 | .22900 | .99370 | .41650 | -.06740 | .97700 | .13290 | .00400 | .00250 | .00270 | 2.14580 |
| 1.099 | 19.393 | .21730 | .98230 | .48720 | -.07190 | 1.08630 | .13340 | .00440 | .00280 | .00300 | 2.01640 |
| 1.101 | 21.533 | .20490 | .55080 | .55080 | -.05700 | 1.16730 | .13170 | .00940 | .00220 | .00030 | 1.88310 |
| 1.100 | 23.644 | .18350 | .61710 | .61710 | -.04360 | 1.24010 | .13070 | .00800 | .00130 | .00040 | 1.75590 |
| 1.101 | 25.744 | .17430 | .68290 | .68290 | -.03930 | 1.31390 | .13010 | .00220 | .00020 | .00030 | 1.63830 |
| 1.097 | 26.741 | .14430 | .72210 | .72210 | -.03430 | 1.34680 | .12990 | .00020 | .00020 | .00120 | 1.58480 |
| | | .06529 | .00537 | .06793 | -.01367 | | .00097 | -.00092 | -.00017 | .00002 | .42952 |

RUN NO. 77/ 0 RVAL = 4.25 GRADIENT INTERNAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CEM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.149 | .051 | .20100 | -.02930 | .14400 | .04340 | .02920 | .14410 | .00160 | -.00020 | -.00020 | -.20360 |
| 1.149 | 2.160 | .22410 | .10040 | .14870 | .01490 | .10590 | .14480 | -.00600 | -.00120 | -.00030 | .67320 |
| 1.149 | 4.276 | .28730 | .28440 | .16160 | -.00870 | .23590 | .14440 | .00710 | .00000 | -.00010 | 1.38860 |
| 1.146 | 6.401 | .20430 | .33970 | .18040 | -.02570 | .35770 | .14140 | .00740 | .00000 | -.00030 | 1.88350 |
| 1.145 | 8.584 | .22240 | .45070 | .20730 | -.03770 | .47650 | .13790 | .00480 | -.00060 | .00000 | 2.17400 |
| 1.147 | 11.727 | .22190 | .55220 | .23930 | -.04250 | .58700 | .13230 | .00120 | .00040 | .00170 | 2.30740 |
| 1.147 | 12.883 | .20930 | .66570 | .28740 | -.05070 | .71300 | .13150 | .00570 | .00050 | .00030 | 2.37660 |
| 1.146 | 15.091 | .22300 | .76390 | .34230 | -.05700 | .82660 | .13220 | .00330 | .00130 | .00070 | 2.23170 |
| 1.147 | 17.226 | .20900 | .86710 | .40790 | -.06830 | .94900 | .13200 | .00760 | .00140 | -.00070 | 2.12610 |
| 1.149 | 19.380 | .21440 | .95890 | .47720 | -.07490 | 1.06290 | .13200 | .00440 | .00220 | -.00080 | 2.00940 |
| 1.151 | 21.517 | .19660 | .53920 | .53920 | -.06240 | 1.14220 | .12920 | .00610 | .00070 | -.00030 | 1.88296 |
| 1.152 | 23.638 | .18150 | .60730 | .60730 | -.05360 | 1.22510 | .12670 | .00200 | .00030 | .00100 | 1.76430 |
| 1.149 | 25.740 | .13390 | .67970 | .67970 | -.04980 | 1.30750 | .12410 | .00390 | .00040 | .00040 | 1.65360 |
| 1.159 | 26.758 | .113910 | .70890 | .70890 | -.04360 | 1.33630 | .12020 | .00690 | -.00040 | -.00040 | 1.60680 |
| 1.159 | | .06005 | .00417 | .06274 | -.01233 | | .00007 | -.00130 | .00005 | -.00002 | .37682 |

(RE7015) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AIRON = .000 BDFLAP = -7.170

TABULATED DATA - 0A181 (ARC 11-87-87-094)

ARC 11-87-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0600

RUN NO. 827 0 RNAL = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|--------|---------|---------|---------|---------|---------|---------|
| 1.198 | .043 | .17370 | -.02780 | .14500 | .03600 | -.02170 | .14500 | .00410 | -.08020 | .00000 | -.15030 |
| 1.202 | 2.152 | .09880 | .01000 | .14900 | .01030 | .10530 | .14520 | -.00490 | -.00210 | -.00340 | .65960 |
| 1.199 | 4.271 | .21440 | -.01250 | .16110 | .01250 | .23200 | .14420 | -.00310 | -.00120 | -.00020 | 1.36920 |
| 1.198 | 6.383 | .33660 | -.03190 | .18090 | .03190 | .36470 | .14230 | .00620 | -.00030 | -.00030 | 1.86080 |
| 1.197 | 8.481 | .44810 | -.04540 | .20760 | .04540 | .47400 | .13860 | .00720 | -.00010 | -.00030 | 2.15790 |
| 1.198 | 10.727 | .55620 | -.05260 | .24210 | .05260 | .59050 | .13450 | .00850 | -.00040 | .00130 | 2.29370 |
| 1.199 | 12.878 | .66060 | -.05970 | .28720 | .05970 | .70800 | .12880 | .00850 | .00000 | .00070 | 2.29990 |
| 1.199 | 15.044 | .75770 | -.06770 | .34370 | .06770 | .82090 | .13520 | -.00110 | -.00110 | .00010 | 2.08740 |
| 1.197 | 17.207 | .84580 | -.07680 | .40800 | .07680 | .93820 | .13660 | -.00140 | -.00140 | -.00020 | 1.99040 |
| 1.194 | 19.362 | .92500 | -.08160 | .47480 | .08160 | 1.04890 | .13460 | -.00200 | -.00200 | -.00110 | 1.87310 |
| 1.201 | 21.507 | 1.00860 | -.07750 | .53950 | .07750 | 1.13580 | .12600 | -.00260 | -.00260 | .00260 | 1.76470 |
| 1.191 | 23.632 | 1.09390 | -.06380 | .60380 | .06380 | 1.21820 | .12680 | .00330 | .00330 | .00090 | 1.65358 |
| 1.192 | 25.741 | 1.12220 | -.05660 | .67260 | .05660 | 1.29390 | .12280 | -.00080 | -.00080 | .00020 | 1.60830 |
| 1.195 | 26.780 | 1.12620 | -.04980 | .70020 | .04980 | 1.32980 | .11770 | -.00060 | -.00060 | .00020 | 1.60830 |
| 1.195 | GRADIENT | .05735 | -.01148 | .00381 | .06003 | -.00170 | -.00619 | -.00170 | -.00024 | -.00005 | .35953 |

RUN NO. 871 0 RN/L = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|--------|---------|---------|---------|---------|---------|---------|
| 1.298 | .036 | .21900 | -.01180 | .14680 | .02510 | -.01170 | .14680 | .01120 | -.00240 | .00000 | -.08050 |
| 1.298 | 2.130 | .09820 | .00380 | .14930 | .00380 | .10370 | .14590 | -.00170 | -.00160 | .00000 | .65900 |
| 1.298 | 4.248 | .21060 | -.01620 | .16020 | .01620 | .22190 | .14420 | -.01430 | -.00290 | -.00020 | 1.31440 |
| 1.297 | 6.365 | .31930 | -.03710 | .17840 | .03710 | .33710 | .14190 | .01200 | -.00030 | -.00030 | 1.79008 |
| 1.295 | 8.427 | .42560 | -.04840 | .20330 | .04840 | .45040 | .13940 | .00700 | -.00100 | -.00030 | 2.09010 |
| 1.295 | 10.691 | .53600 | -.06370 | .23860 | .06370 | .57090 | .13520 | .00870 | -.00050 | .00050 | 2.24460 |
| 1.295 | 12.841 | .64240 | -.07680 | .28450 | .07680 | .68960 | .13480 | .00800 | -.00080 | .00160 | 2.25620 |
| 1.295 | 14.998 | .73060 | -.08130 | .34330 | .08130 | .79230 | .13430 | -.00070 | -.00070 | .00050 | 2.18400 |
| 1.295 | 17.167 | .82450 | -.08870 | .39530 | .08870 | .90450 | .13250 | -.00170 | -.00170 | .00090 | 2.06930 |
| 1.294 | 19.319 | .90610 | -.09100 | .45800 | .09100 | 1.00560 | .12900 | -.00240 | -.00240 | .00060 | 1.97630 |
| 1.295 | 21.453 | .98060 | -.09420 | .52370 | .09420 | 1.10420 | .12890 | -.00340 | -.00340 | .00060 | 1.87240 |
| 1.295 | 23.593 | 1.04300 | -.08760 | .59200 | .08760 | 1.19260 | .12500 | -.00140 | -.00140 | .00060 | 1.76200 |
| 1.295 | 25.716 | 1.09750 | -.07830 | .66210 | .07830 | 1.28300 | .12030 | -.00220 | -.00220 | .00070 | 1.65770 |
| 1.295 | 26.764 | 1.11730 | -.07230 | .69780 | .07230 | 1.31180 | .11970 | -.00160 | -.00160 | .00120 | 1.60180 |
| 1.295 | GRADIENT | .05607 | -.00980 | .00316 | .05546 | -.00075 | -.00066 | -.00075 | -.00012 | -.00005 | .33125 |

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(RETURNS) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-87-87-09#)

ARC 11-87-87-09# 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ATLIRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1078.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.403 | .017 | .17260 | -.00710 | .14480 | .01620 | -.00700 | .14480 | .00500 | -.00030 | .00010 | -.04870 |
| 1.403 | 2.115 | .21540 | .09550 | .14660 | -.08250 | 1.0090 | .14300 | -.00370 | -.00080 | -.0010 | .65170 |
| 1.402 | 4.282 | .23980 | 20.130 | .15640 | -.02970 | .21230 | .14120 | -.01610 | -.00240 | -.00030 | 1.28740 |
| 1.399 | 6.346 | .30480 | 30.480 | .17340 | -.03740 | .32210 | .13860 | -.00080 | -.00080 | -.00000 | 1.75810 |
| 1.399 | 8.495 | .40520 | 40.520 | .19780 | -.05130 | .43000 | .13580 | -.00160 | -.00060 | -.00060 | 2.04840 |
| 1.398 | 10.650 | .50230 | 50.230 | .23030 | -.06380 | .53620 | .13350 | .01700 | -.00090 | -.00000 | 2.18070 |
| 1.397 | 12.795 | .60290 | 60.290 | .27260 | -.07710 | .64830 | .13250 | .08040 | -.00030 | .00000 | 2.21440 |
| 1.397 | 14.958 | .69630 | 69.630 | .32120 | -.08640 | .75560 | .13060 | -.00410 | -.00020 | .00030 | 2.16790 |
| 1.399 | 17.124 | .78540 | 78.540 | .37570 | -.09320 | .86126 | .12780 | .01500 | -.00090 | .00090 | 2.09060 |
| 1.399 | 19.282 | .86990 | 86.990 | .43690 | -.09770 | .96450 | .12540 | .01970 | -.00040 | .00000 | 1.98930 |
| 1.398 | 21.427 | .93890 | 93.890 | .49380 | -.09490 | 1.06660 | .12240 | .00970 | -.00040 | .00070 | 1.87820 |
| 1.395 | 25.572 | 1.0660 | 1.0660 | .55880 | -.09120 | 1.15010 | .11880 | .00520 | -.00040 | .00050 | 1.65880 |
| 1.404 | 25.682 | 1.2170 | 1.2170 | .63940 | -.08320 | 1.23240 | .11640 | .00420 | -.00120 | .00070 | 1.60740 |
| 1.398 | 26.748 | 1.3870 | 1.3870 | .67670 | -.07890 | 1.27590 | .11470 | -.00800 | -.00120 | .00000 | 1.60070 |
| 1.398 | GRADIENT | .01598 | .04956 | .00276 | -.00877 | .05215 | -.00086 | -.00502 | -.00050 | -.00010 | .31772 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.556 | .042 | -.53920 | -.01838 | .13920 | .00990 | -.01828 | .13920 | .00070 | -.00020 | .00020 | -.13170 |
| 1.556 | 2.029 | -.54070 | .07260 | .13950 | -.00380 | .07750 | .13570 | .00160 | -.00020 | .00020 | .52090 |
| 1.556 | 4.106 | -.54170 | .16870 | .14650 | -.02200 | .17870 | .13410 | .00250 | -.00030 | .00030 | 1.15110 |
| 1.555 | 6.177 | -.54160 | .28250 | .16110 | -.03720 | .27830 | .13190 | .00330 | -.00010 | .00030 | 1.62900 |
| 1.555 | 8.246 | -.54240 | .35080 | .18370 | -.05080 | .37350 | .13150 | .00440 | -.00030 | .00030 | 1.90960 |
| 1.556 | 10.312 | -.54070 | .43260 | .21040 | -.05840 | .46330 | .12960 | .00410 | -.00040 | .00010 | 2.05610 |
| 1.555 | 12.384 | -.53840 | .51180 | .24180 | -.06450 | .55170 | .12430 | .00390 | -.00030 | .00050 | 2.11690 |
| 1.562 | 14.439 | -.53780 | .59520 | .28161 | -.07200 | .64650 | .12670 | .00560 | -.00040 | .00050 | 2.11400 |
| 1.562 | 16.587 | -.53820 | .67720 | .32770 | -.07890 | .74260 | .11930 | .00740 | -.00030 | .00060 | 2.08530 |
| 1.556 | 18.686 | -.53990 | .75870 | .38150 | -.08460 | .84090 | .11420 | .01050 | -.00030 | .00040 | 1.90840 |
| 1.556 | 20.723 | -.53880 | .83930 | .43940 | -.08930 | .93980 | .11260 | .00830 | -.00030 | .00040 | 1.80870 |
| 1.585 | 22.812 | -.52810 | .91320 | .50490 | -.09310 | 1.03760 | .11140 | .01050 | -.00030 | .00040 | 1.69380 |
| 1.565 | 24.876 | -.52780 | .97510 | .57370 | -.09280 | 1.12500 | .10300 | .00970 | -.00020 | .00000 | 1.64680 |
| 1.555 | 25.901 | -.51950 | 1.00470 | .60930 | -.09080 | 1.16990 | .10930 | .00950 | -.00020 | .00030 | 1.64680 |
| 1.555 | GRADIENT | -.00051 | .04602 | .00181 | -.00765 | .04846 | -.00126 | -.00044 | -.00002 | .00002 | .31560 |

(RET'DS) (02 AUG 76 R

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 3287 0 RVAL = 3.06 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.750 | -.007 | -.35290 | -.02070 | .13430 | .00270 | -.02070 | .13430 | -.00160 | -.00030 | .00000 | -.15420 |
| 1.750 | 1.986 | -.35450 | .06380 | .13380 | -.01030 | .06820 | .13150 | -.00040 | -.00040 | .00000 | -.47520 |
| 1.750 | 6.104 | -.35440 | .23190 | .15270 | -.03570 | .24680 | .12720 | .00090 | -.00060 | .00000 | 1.51860 |
| 1.750 | 8.153 | -.35428 | .31030 | .17280 | -.04590 | .33160 | .12700 | .00120 | -.00060 | .00000 | 1.79560 |
| 1.750 | 10.205 | -.35460 | .39060 | .19810 | -.05380 | .41950 | .12580 | .00270 | -.00050 | .00000 | 1.97120 |
| 1.750 | 12.211 | -.35320 | .46830 | .22640 | -.05910 | .50260 | .12260 | .00330 | -.00070 | .00010 | 2.05820 |
| 1.750 | 14.278 | -.35050 | .53940 | .25910 | -.06240 | .58650 | .11810 | .00340 | -.00080 | .00020 | 2.15120 |
| 1.750 | 16.409 | -.34710 | .61660 | .30156 | -.06550 | .67870 | .11500 | .00340 | -.00100 | .00010 | 2.24550 |
| 1.750 | 18.492 | -.34538 | .68188 | .34830 | -.06880 | .76550 | .11090 | .00340 | -.00110 | .00020 | 1.96530 |
| 1.750 | 20.503 | -.33980 | .76440 | .40090 | -.07310 | .85640 | .10780 | .00470 | -.00140 | .00020 | 1.80850 |
| 1.750 | 22.574 | -.33640 | .83540 | .46190 | -.07710 | .94880 | .10580 | .00480 | -.00140 | .00030 | 1.71030 |
| 1.750 | 24.628 | -.33200 | .90170 | .52728 | -.08120 | 1.03840 | .10350 | .00540 | -.00160 | .00030 | 1.65230 |
| 1.750 | 25.618 | -.32960 | .93640 | .56330 | -.08360 | 1.08800 | .10230 | .00540 | -.00160 | .00030 | 1.65230 |
| 1.750 | GRADIENT | -.00080 | .04230 | -.00025 | -.00653 | .04461 | -.00140 | .00060 | -.00005 | .00000 | -.31581 |

RUN NO. 3337 0 RVAL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|
| 1.997 | -.028 | -.88650 | -.00600 | .12780 | -.00760 | -.80600 | .12780 | .00620 | -.00070 | .00020 | -.04660 |
| 1.997 | 2.012 | -.88610 | .07310 | .12750 | -.01780 | .07750 | .12480 | .00630 | -.00070 | .00020 | -.57300 |
| 1.997 | 4.075 | -.88540 | .14660 | .13270 | -.02820 | .15550 | .12200 | .00540 | -.00050 | .00010 | 1.10350 |
| 1.997 | 6.134 | -.88498 | .22050 | .14390 | -.03330 | .23460 | .11950 | .00500 | -.00050 | .00010 | 1.53240 |
| 1.997 | 10.267 | -.88520 | .30890 | .18420 | -.04100 | .39500 | .11560 | .00730 | -.00040 | .00020 | 1.99830 |
| 1.997 | 12.302 | -.88360 | .44070 | .21050 | -.04380 | .47550 | .11180 | .00730 | -.00040 | .00020 | 2.09560 |
| 1.997 | 13.631 | -.88380 | .49180 | .24260 | -.04590 | .53270 | .11029 | .00810 | -.00040 | .00020 | 2.14430 |
| 1.997 | 16.530 | -.88060 | .59470 | .28650 | -.05080 | .65176 | .10540 | .00930 | -.00010 | .00010 | 2.07670 |
| 1.997 | 18.621 | -.87730 | .66740 | .33290 | -.05350 | .73870 | .10240 | .00840 | .00000 | .00010 | 2.00460 |
| 1.997 | 21.655 | -.87510 | .74050 | .38480 | -.05720 | .82860 | .09880 | .00840 | .00030 | .00010 | 1.93440 |
| 1.997 | 22.729 | -.87080 | .80849 | .44270 | -.06170 | .91670 | .09600 | .01030 | .00050 | .00010 | 1.86590 |
| 1.997 | 25.274 | -.86500 | .89100 | .52280 | -.06780 | .91670 | .09230 | .01000 | .00060 | .00010 | 1.70440 |
| 1.997 | GRADIENT | .00005 | .03721 | -.00454 | -.00454 | .05941 | -.00142 | .00020 | -.00002 | -.00002 | -.28055 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6808 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000
 ALLRON = .000
 ELEVON = .000
 SDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 3474 0 RNL = 3.04 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/O |
|-------|--------|---------|---------|-------|---------|---------|-------|---------|---------|---------|---------|
| 2.250 | 1.128 | -.97888 | -.03390 | 12070 | -.01090 | -.03420 | 12060 | -.01090 | -.00120 | -.00030 | -.28120 |
| 2.250 | 1.863 | -.97770 | -.03260 | 12000 | -.01780 | 0.3670 | 11890 | -.00890 | -.00400 | -.00300 | -.27340 |
| 2.250 | 3.911 | -.97860 | 09180 | 12180 | -.02710 | 09990 | 11530 | 00970 | 00040 | 00040 | .75370 |
| 2.250 | 9.961 | -.97880 | 15840 | 12060 | -.02710 | 16800 | 11180 | 00930 | 00040 | 00040 | 1.20880 |
| 2.250 | 8.013 | -.97850 | 21770 | 14130 | -.02940 | 23530 | 10950 | 00948 | 00040 | 00040 | 1.54130 |
| 2.250 | 10.050 | -.97810 | 28290 | 19920 | -.03690 | 30830 | 10730 | 01032 | 00050 | 00050 | 1.77750 |
| 2.250 | 12.090 | -.97720 | 35660 | 18210 | -.03320 | 38090 | 10460 | 01090 | 00050 | 00050 | 1.92260 |
| 2.250 | 14.167 | -.97710 | 41870 | 21090 | -.03680 | 45760 | 10200 | 01090 | 00070 | 00070 | 1.98910 |
| 2.250 | 16.292 | -.97820 | 48930 | 24648 | -.04330 | 53880 | 09920 | 01010 | 00038 | 00038 | 1.98590 |
| 2.250 | 18.366 | -.97630 | 55500 | 28590 | -.04330 | 61680 | 09640 | 00880 | 00038 | 00038 | 1.94340 |
| 2.250 | 20.377 | -.97500 | 62020 | 33010 | -.04620 | 69648 | 09350 | 01090 | 00070 | 00070 | 1.87880 |
| 2.250 | 22.448 | -.97100 | 68440 | 38090 | -.04980 | 77800 | 09070 | 01030 | 00100 | 00028 | 1.79580 |
| 2.250 | 24.497 | -.96800 | 74710 | 43730 | -.05380 | 86120 | 08820 | 01160 | 00100 | 00050 | 1.70840 |
| 2.250 | 25.513 | -.96410 | 78150 | 46920 | -.05580 | 90740 | 08680 | 00970 | 00100 | 00040 | 1.66570 |
| | | | 00028 | 00028 | -.00277 | 03328 | 00132 | -.00029 | 00003 | 00002 | -.25825 |

RUN NO. 4187 0 RNL = 1.99 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/O |
|-------|--------|-------|---------|-------|---------|---------|-------|---------|---------|---------|---------|
| 2.499 | .118 | 04510 | -.02830 | 11490 | -.01840 | -.02810 | 11490 | -.00720 | -.00860 | -.00040 | -.24640 |
| 2.499 | 2.156 | 04370 | -.02680 | 11370 | -.01950 | 03110 | 11260 | 00860 | -.00070 | -.00200 | -.23580 |
| 2.499 | 4.185 | 04340 | 08190 | 11710 | -.02230 | 09030 | 11090 | 00790 | -.00080 | -.00060 | -.69950 |
| 2.499 | 6.219 | 04220 | 13930 | 12180 | -.02460 | 15170 | 10590 | 00770 | -.00050 | -.00030 | 1.14420 |
| 2.499 | 8.253 | 04020 | 19870 | 13310 | -.02570 | 21670 | 10310 | 00800 | -.00060 | -.00070 | 1.49890 |
| 2.499 | 10.292 | 03900 | 26230 | 14990 | -.02650 | 28490 | 10060 | 00910 | -.00060 | -.00070 | 1.79060 |
| 2.499 | 12.332 | 03830 | 32540 | 17190 | -.02840 | 35460 | 09840 | 00800 | -.00050 | -.00050 | 1.65500 |
| 2.499 | 14.377 | 03670 | 39060 | 19990 | -.03050 | 42800 | 09670 | 00860 | -.00070 | -.00070 | 1.92360 |
| 2.499 | 16.416 | 03500 | 45600 | 23250 | -.03310 | 50310 | 09410 | 00890 | -.00070 | -.00070 | 1.96150 |
| 2.499 | 18.459 | 03320 | 52048 | 27020 | -.03600 | 57820 | 09150 | 01020 | -.00090 | -.00090 | 1.92690 |
| 2.499 | 20.512 | 03180 | 58320 | 31340 | -.03850 | 65600 | 08930 | 00860 | -.00090 | -.00100 | 1.86030 |
| 2.499 | 22.550 | 02930 | 64560 | 36200 | -.04180 | 73510 | 08680 | 00950 | -.00070 | -.00090 | 1.78530 |
| 2.499 | 24.597 | 02720 | 70840 | 41770 | -.04600 | 81780 | 08490 | 00950 | -.00060 | -.00090 | 1.62500 |
| 2.499 | 25.621 | 02650 | 73950 | 44790 | -.04790 | 86040 | 08410 | 00950 | -.00060 | -.00090 | 1.85100 |
| | | | 02703 | 00054 | -.00145 | 02811 | 00098 | 00000 | 00000 | 00005 | -.25237 |

(REZ015) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
A FLRON = .000 BDFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-884 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XREFP = 1076.6800 IN. X0
LREF = 474.8000 IN. YREFP = .0000 IN. Y0
BREF = 935.6800 IN. ZREFP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 423/ C RV/L = 1.96 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|----------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|---------|
| 3.040 | .068 | .14410 | -.03930 | .10150 | -.02180 | -.03920 | .10150 | .00540 | -.08050 | .00020 | -.36720 |
| 3.040 | 2.090 | .14330 | .00560 | .09800 | -.02170 | .00920 | -.09870 | .00500 | -.00030 | .00020 | .06580 |
| 3.040 | 4.116 | .14420 | .05220 | .09580 | -.02090 | .05920 | .05590 | .00210 | -.00060 | .00020 | .52240 |
| 3.040 | 6.147 | .14260 | .10400 | .10360 | -.02090 | .11430 | .09190 | .00290 | -.00030 | .00030 | 1.01370 |
| 3.040 | 8.173 | .13970 | .15760 | .11380 | -.02050 | .17210 | .08940 | .00558 | .00010 | .00030 | 1.39530 |
| 3.040 | 10.204 | .13850 | .21340 | .11300 | -.02090 | .23250 | .08670 | .00800 | .00030 | .00030 | 1.58560 |
| 3.040 | 12.242 | .13900 | .27010 | .14540 | -.02130 | .29480 | .08480 | .00310 | .00060 | .00040 | 1.65720 |
| 3.040 | 14.269 | .13460 | .32840 | .16560 | -.02280 | .36010 | .08350 | .00790 | .00020 | .00050 | 1.93170 |
| 3.040 | 16.306 | .13460 | .38780 | .19840 | -.02436 | .42790 | .08150 | .00530 | .00030 | .00060 | 1.98490 |
| 3.040 | 18.338 | .13070 | .44630 | .23180 | -.02590 | .49660 | .07960 | .00848 | .00030 | .00050 | 1.65870 |
| 3.040 | 20.373 | .12440 | .50790 | .27210 | -.02770 | .56780 | .07820 | .00680 | .00050 | .00050 | 1.78450 |
| 3.040 | 22.417 | .12570 | .56720 | .31790 | -.02980 | .64560 | .07750 | .00738 | .00040 | .00050 | 1.70060 |
| 3.040 | 24.453 | .12590 | .62720 | .36680 | -.03250 | .72360 | .07610 | .00650 | .00040 | .00050 | 1.65380 |
| 3.040 | 25.483 | .00002 | .65720 | .39740 | -.03410 | .76420 | .07500 | .00630 | .00050 | .00050 | 1.65380 |
| GRADIENT | | | .02261 | -.00040 | .00022 | .02434 | -.00138 | -.00082 | -.00002 | .00000 | .25475 |

RUN NO. 428/ 0 RV/L = 2.08 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|----------|--------|--------|---------|---------|---------|---------|---------|--------|---------|--------|---------|
| 3.499 | .170 | .10220 | -.04140 | .09410 | -.02390 | -.04170 | .09400 | .00450 | -.00010 | .00010 | -.44000 |
| 3.499 | 1.861 | .10040 | .00180 | .09080 | -.02280 | .00110 | -.09080 | .00620 | .00070 | .00020 | -.02800 |
| 3.499 | 3.875 | .09980 | .04390 | .09090 | -.02060 | .04990 | .08770 | .00570 | .00000 | .00020 | .48260 |
| 3.499 | 5.898 | .09930 | .08980 | .09090 | -.01970 | .09900 | .08420 | .00470 | .00000 | .00020 | .95810 |
| 3.499 | 7.920 | .09990 | .13850 | .10170 | -.01910 | .15100 | .08170 | .00190 | .00050 | .00020 | 1.35000 |
| 3.499 | 9.949 | .09520 | .18960 | .11420 | -.01860 | .20640 | .07970 | .00800 | .00030 | .00020 | 1.68880 |
| 3.499 | 11.974 | .09790 | .24290 | .11870 | -.01870 | .26490 | .07810 | .00260 | .00050 | .00040 | 1.84880 |
| 3.499 | 14.006 | .09250 | .29860 | .13140 | -.01948 | .32660 | .07660 | .00868 | .00040 | .00040 | 1.94560 |
| 3.499 | 16.032 | .09120 | .35330 | .15340 | -.01980 | .38930 | .07540 | .00798 | .00010 | .00020 | 1.96310 |
| 3.499 | 18.064 | .09210 | .41070 | .18000 | -.02040 | .45620 | .07430 | .00700 | .00030 | .00020 | 1.87760 |
| 3.499 | 20.103 | .08880 | .46790 | .21210 | -.02130 | .52500 | .07320 | .00560 | .00020 | .00020 | 1.80390 |
| 3.499 | 22.134 | .08550 | .52660 | .24920 | -.02150 | .59380 | .07200 | .00570 | .00010 | .00000 | 1.71570 |
| 3.499 | 24.170 | .08370 | .58470 | .29190 | -.02310 | .67300 | .07100 | .00860 | .00010 | .00000 | 1.67160 |
| 3.499 | 25.188 | .08260 | .61420 | .34080 | -.02450 | .71220 | .07100 | .00890 | .00000 | .00000 | 1.67160 |
| GRADIENT | | | .02103 | -.00073 | .00084 | .02268 | -.00156 | .00030 | -.00002 | .00002 | .28813 |

(RE7016) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

| CYN | CBL | L/D |
|---------|---------|----------|
| .00260 | -.00150 | -1.15240 |
| .00220 | -.00230 | .65730 |
| .00200 | -.00260 | 2.36090 |
| .00200 | -.00310 | 3.76760 |
| .00200 | -.00350 | 4.60190 |
| .00220 | -.00500 | 4.90670 |
| .00320 | -.00480 | 4.65460 |
| .00200 | -.00510 | 3.89100 |
| .00180 | -.00610 | 3.32930 |
| .00230 | -.00590 | 2.87500 |
| .00210 | -.00720 | 2.56560 |
| .00130 | -.00670 | 2.33250 |
| -.00080 | -.00470 | 2.12610 |
| -.00270 | -.00680 | 2.02300 |
| -.00015 | -.00032 | .85471 |

| CYN | CBL | L/D |
|---------|---------|----------|
| .00240 | -.00130 | -1.19410 |
| .00210 | -.00200 | .61830 |
| .00260 | -.00260 | 2.43600 |
| .00260 | -.00320 | 3.72620 |
| .00240 | -.00320 | 4.53620 |
| .00390 | -.00270 | 4.42850 |
| .00270 | -.00360 | 3.89778 |
| .00230 | -.00560 | 3.38500 |
| .00200 | -.00570 | 2.96580 |
| .00140 | -.00640 | 2.65860 |
| .00040 | -.00850 | 2.42880 |
| -.00370 | -.00910 | 2.21550 |
| -.00850 | -.00930 | 2.00870 |
| -.01010 | -.01570 | 1.89720 |
| -.00005 | -.00031 | .87997 |

TABULATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-084 0A161 ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0080 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| .594 | .088 | 2.24440 | -.06990 | .05200 | .03150 | -.05980 | .05210 | -.03040 | .00260 | -.00150 | -1.15240 |
| .597 | 2.138 | 2.28050 | .03480 | .05210 | .03200 | .03670 | .05080 | -.03260 | .00220 | -.00230 | .65730 |
| .597 | 4.199 | 2.29800 | .13050 | .05530 | .03150 | .13420 | .04560 | -.03230 | .00200 | -.00260 | 2.36090 |
| .595 | 6.276 | 2.30490 | .23190 | .06180 | .02890 | .23730 | .03580 | -.03090 | .00200 | -.00310 | 3.76760 |
| .595 | 8.369 | 2.31160 | .35910 | .07370 | .02540 | .34620 | .02350 | -.03400 | .00200 | -.00350 | 4.60190 |
| .594 | 10.474 | 2.32090 | .44850 | .09140 | .02350 | .45770 | .00830 | -.03220 | .00220 | -.00500 | 4.90670 |
| .596 | 12.626 | 2.30900 | .56480 | .12130 | .02239 | .57760 | -.00510 | -.02760 | .00200 | -.00480 | 4.65460 |
| .597 | 14.753 | 2.29150 | .66510 | .16840 | .02140 | .78400 | -.00400 | -.02740 | .00180 | -.00610 | 3.32930 |
| .597 | 16.893 | 2.29250 | .75070 | .22610 | .01840 | .98050 | -.00280 | -.02990 | .00230 | -.00590 | 2.87500 |
| .597 | 19.000 | 2.28580 | .85050 | .32000 | .01460 | 1.02440 | -.00360 | -.02640 | .00210 | -.00720 | 2.56560 |
| .595 | 21.175 | 2.27740 | .96440 | .44710 | .00778 | 1.15470 | -.00660 | -.02260 | .00130 | -.00670 | 2.33250 |
| .596 | 23.263 | 2.26550 | 1.04290 | .50490 | .002910 | 1.18620 | -.00060 | -.02440 | -.00080 | -.00470 | 2.12610 |
| .596 | 25.304 | 2.34230 | 1.04260 | .51510 | .05820 | 1.16240 | -.00328 | -.01110 | -.00270 | -.00680 | 2.02300 |
| .597 | 26.222 | .01304 | .04632 | .00080 | -.00000 | .04720 | -.00158 | -.00046 | -.00015 | -.00032 | .85471 |

GRADIENT INTERVAL = -5.00/ 5.00

GRADIENT INTERVAL = 4.35

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| .698 | .081 | 2.26230 | -.06380 | .05340 | .03520 | -.06370 | .05350 | -.03230 | .00240 | -.00130 | -1.19410 |
| .698 | 2.134 | 2.29360 | .03300 | .05330 | .03500 | .03490 | .05200 | -.03460 | .00210 | -.00200 | .61830 |
| .699 | 4.209 | 2.31000 | .13630 | .05590 | .03290 | .14000 | .04570 | -.03730 | .00260 | -.00260 | 2.43600 |
| .697 | 6.295 | 2.31960 | .23790 | .06370 | .03070 | .24390 | .03730 | -.03310 | .00260 | -.00320 | 3.72620 |
| .698 | 8.411 | 2.31960 | .35550 | .07840 | .02940 | .36310 | .02550 | -.03160 | .00240 | -.00320 | 4.53620 |
| .697 | 10.528 | 2.32410 | .46590 | .10520 | .02150 | .47730 | .01830 | -.03430 | .00390 | -.00270 | 4.42850 |
| .696 | 12.671 | 2.30890 | .55370 | .14210 | .02260 | .57140 | .01710 | -.03150 | .00270 | -.00360 | 3.89778 |
| .696 | 14.812 | 2.30230 | .64970 | .19200 | .02120 | .77720 | .01960 | -.02780 | .00230 | -.00560 | 3.38500 |
| .696 | 16.964 | 2.30570 | .74720 | .25190 | .01350 | .98820 | .02290 | -.02790 | .00200 | -.00570 | 2.96580 |
| .695 | 19.083 | 2.29340 | .85000 | .31970 | .01100 | .94780 | .02420 | -.02600 | .00140 | -.00640 | 2.65860 |
| .694 | 21.189 | 2.28340 | .94570 | .38940 | .01100 | 1.02250 | .01980 | -.02640 | .00040 | -.00850 | 2.42880 |
| .694 | 23.263 | 2.30410 | 1.00370 | .46920 | .02570 | 1.10100 | .01980 | -.02640 | -.00370 | -.00910 | 2.21550 |
| .692 | 25.304 | 2.32800 | 1.00280 | .49920 | .06270 | 1.12000 | .02270 | -.01980 | -.00850 | -.00930 | 2.00870 |
| .692 | 26.222 | 2.37240 | .95070 | .50110 | .09250 | 1.07430 | .02950 | -.00840 | -.01010 | -.01570 | 1.89720 |
| .696 | | .01155 | .04848 | .00061 | -.00056 | .04935 | -.00188 | -.00121 | -.00005 | -.00031 | .87997 |

(RE7016) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0380

RUN NO. 407 0 RV/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|--------|--------|---------|---------|---------|---------|---------|---------|----------|
| .799 | .046 | 2.27530 | .07220 | .09690 | .04220 | .07210 | .05690 | -.03530 | .00240 | -.00120 | -1.25480 |
| .799 | 2.130 | 2.28420 | .02940 | .05610 | .04140 | .03140 | .05500 | -.03540 | .00230 | -.00200 | .58300 |
| .799 | 4.224 | 2.30850 | .13740 | .05040 | .03920 | .14140 | .05010 | -.03850 | .00180 | -.00280 | 2.27450 |
| .798 | 6.336 | 2.30960 | .07240 | .05290 | .03140 | .25240 | .04400 | -.03560 | .00220 | -.00260 | 3.48440 |
| .797 | 8.455 | 2.31030 | .35170 | .09530 | .02480 | .37180 | .04100 | -.03500 | .00290 | -.00120 | 3.79740 |
| .797 | 18.569 | 2.31590 | .45070 | .12430 | .02580 | .46590 | .03950 | -.03020 | .00120 | -.00240 | 3.62550 |
| .796 | 12.782 | 2.30660 | .53710 | .16170 | .02700 | .55980 | .03840 | -.03140 | .00070 | -.00400 | 3.32200 |
| .796 | 14.872 | 2.30950 | .63710 | .21470 | .02050 | .67890 | .04400 | -.03060 | .00070 | -.00400 | 2.96570 |
| .797 | 17.050 | 2.32870 | .74270 | .27500 | .01210 | .79150 | .04750 | -.03290 | .00070 | -.00620 | 2.67670 |
| .799 | 19.176 | 2.31460 | .82280 | .33990 | .01620 | .86750 | .04700 | -.03210 | .00050 | -.00510 | 2.44840 |
| .795 | 21.276 | 2.30770 | .89730 | .39780 | .02650 | .98050 | .04520 | -.02730 | .00070 | -.00540 | 2.25530 |
| .796 | 23.367 | 2.31870 | .94360 | .45860 | .02570 | 1.04820 | .04700 | -.02600 | .00120 | -.00660 | 2.05850 |
| .795 | 25.373 | 2.31740 | .90720 | .49470 | .05240 | 1.03040 | .05560 | -.00200 | .00090 | -.02180 | 1.84490 |
| .796 | 26.304 | 2.39020 | .88128 | .49840 | .11000 | 1.01080 | .05640 | -.02510 | .00090 | -.01330 | 1.76790 |
| | GRADIENT | .00747 | .05016 | .00084 | -.00072 | .05189 | -.00163 | -.00077 | -.00014 | -.00038 | .84792 |

RUN NO. 477 0 RV/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|--------|--------|---------|---------|---------|---------|---------|---------|----------|
| .847 | .058 | 2.25540 | .07590 | .06058 | .04830 | -.07580 | .06050 | -.03480 | .00250 | -.00090 | -1.25480 |
| .850 | 2.142 | 2.29200 | .03050 | .06060 | .04570 | .03270 | .05840 | -.03770 | .00210 | -.00180 | .58300 |
| .846 | 4.241 | 2.30630 | .14370 | .06650 | .04120 | .14820 | .05570 | -.03640 | .00260 | -.00240 | 2.15870 |
| .845 | 6.353 | 2.31230 | .25660 | .08230 | .03150 | .26400 | .05370 | -.03430 | .00240 | -.00190 | 3.10670 |
| .847 | 8.473 | 2.31270 | .35960 | .10710 | .02670 | .37140 | .05300 | -.03210 | .00248 | -.00160 | 3.35620 |
| .847 | 10.588 | 2.32410 | .44090 | .13460 | .02980 | .45810 | .05130 | -.03270 | .00170 | -.00270 | 3.27550 |
| .848 | 12.750 | 2.31400 | .53240 | .17540 | .02868 | .55798 | .05360 | -.03120 | .00060 | -.00330 | 3.03550 |
| .847 | 14.901 | 2.31980 | .62740 | .22660 | .01660 | .66456 | .05760 | -.02710 | .00230 | -.00340 | 2.76900 |
| .848 | 17.081 | 2.32770 | .72908 | .28760 | .01370 | .78130 | .06880 | -.02710 | .00400 | -.00400 | 2.53470 |
| .846 | 19.219 | 2.32040 | .81970 | .34840 | .01740 | .88870 | .05940 | -.02820 | .00740 | -.00540 | 2.35290 |
| .846 | 21.320 | 2.31050 | .88160 | .40770 | .03030 | .96990 | .05930 | -.02130 | .00870 | -.00670 | 2.16230 |
| .844 | 23.400 | 2.31160 | .91210 | .46490 | .06270 | 1.02170 | .06440 | -.01290 | .00730 | -.00730 | 1.96180 |
| .844 | 25.423 | 2.33110 | .89830 | .50360 | .09520 | 1.02750 | .06920 | -.00170 | -.01450 | -.01470 | 1.78378 |
| .847 | 26.384 | 2.38480 | .90050 | .52490 | .10650 | 1.04000 | .07010 | -.01410 | -.00950 | -.00950 | 1.71540 |
| | GRADIENT | .01192 | .05250 | .00144 | -.00170 | .05355 | -.00117 | -.00038 | -.00012 | -.00036 | .84628 |

(RE7018) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = 0.000
AILRON = 0.000 BOFLAP = -7.170

GRADIENT INTERVAL = -5.00/ 5.00

TABLATED DATA - 0A161 (ARC 11-87-87-894)
ARC 11-87-87-894 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = 0.0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = 0.300

| MACH | ALPHA | BETA | CL | CLM | CLN | CA | CY | CYN | CBL | L/D |
|------|--------|---------|--------|--------|--------|---------|---------|--------|---------|---------|
| .901 | .047 | 2.26360 | .03980 | .07170 | .04350 | .05980 | -.04010 | .00390 | .00020 | -.83500 |
| .902 | 2.152 | 2.28750 | .06290 | .07450 | .03320 | .05570 | -.03820 | .00380 | -.00080 | -.84400 |
| .903 | 4.260 | 2.30720 | .17150 | .08270 | .02820 | .17720 | -.06970 | .00290 | -.00150 | 2.07440 |
| .904 | 6.377 | 2.31210 | .27710 | .10190 | .02348 | .26670 | -.03540 | .00250 | -.00240 | 2.71830 |
| .905 | 8.494 | 2.31340 | .37050 | .12480 | .02050 | .38490 | -.03490 | .00210 | -.00180 | 2.96750 |
| .906 | 10.626 | 2.32430 | .45720 | .15770 | .01980 | .47850 | -.02400 | .00090 | -.00230 | 2.88860 |
| .907 | 12.790 | 2.29850 | .52210 | .19710 | .01570 | .58210 | -.02980 | .00350 | -.00290 | 2.61740 |
| .908 | 14.944 | 2.33390 | .57430 | .24880 | .00990 | .69330 | -.02760 | .00590 | -.00406 | 2.43390 |
| .909 | 17.129 | 2.31680 | .61820 | .30570 | .01010 | .80090 | -.02190 | .00910 | -.00500 | 2.25578 |
| .910 | 19.274 | 2.32400 | .65820 | .36750 | .02710 | .90380 | -.02070 | .01750 | -.00460 | 2.06920 |
| .911 | 21.382 | 2.32090 | .69490 | .42920 | .05860 | .98360 | -.00820 | .01750 | -.00810 | 1.87408 |
| .912 | 23.479 | 2.32810 | .72810 | .48660 | .10920 | 1.02560 | -.01580 | .00900 | -.00450 | 1.70980 |
| .913 | 25.502 | 2.38430 | .75300 | .54060 | .14430 | 1.04248 | -.03240 | .00370 | -.00350 | 1.65590 |
| .914 | 26.446 | 2.00560 | .76990 | .59490 | .00261 | .05625 | -.00047 | .00026 | -.00040 | .69062 |

| MACH | ALPHA | BETA | CL | CLM | CLN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|--------|--------|---------|---------|---------|--------|---------|---------|
| .951 | .071 | 2.26340 | .06060 | .09430 | .05040 | .10030 | -.02880 | .00090 | -.08260 | -.60430 |
| .949 | 2.173 | 2.29210 | .07230 | .03390 | .07620 | .10060 | -.02688 | .00080 | -.00360 | .69810 |
| .948 | 4.286 | 2.31060 | .20360 | .01280 | .21150 | .08870 | -.02610 | .00050 | -.00220 | 1.78240 |
| .949 | 6.417 | 2.32440 | .32530 | .00130 | .33920 | .09870 | -.03550 | .00060 | -.00160 | 2.42900 |
| .948 | 8.557 | 2.32730 | .43140 | .00980 | .45050 | .09440 | -.03510 | .00080 | -.00080 | 2.69840 |
| .949 | 10.698 | 2.32550 | .52360 | .01170 | .55030 | .09250 | -.02950 | .00100 | -.00180 | 2.71290 |
| .948 | 12.867 | 2.29800 | .62906 | .01810 | .65680 | .09470 | -.02300 | .00150 | -.00330 | 2.61220 |
| .949 | 15.027 | 2.32490 | .73180 | .02440 | .78370 | .09570 | -.01970 | .00198 | -.00410 | 2.46760 |
| .948 | 17.228 | 2.35760 | .82650 | .02480 | .89540 | .09690 | -.02680 | .00250 | -.00250 | 2.31950 |
| .946 | 19.368 | 2.34290 | .90170 | .01540 | .98830 | .09260 | -.02050 | .01340 | -.00400 | 2.17190 |
| .949 | 21.492 | 2.33290 | .96580 | .00160 | 1.07590 | .09530 | -.00910 | .00960 | -.00580 | 1.99640 |
| .951 | 23.555 | 2.32890 | .97210 | .03790 | 1.10540 | .10290 | -.00120 | .00960 | -.00650 | 1.81280 |
| .952 | 25.630 | 2.35080 | .97430 | .07820 | 1.13180 | 1.0510 | -.01350 | .01210 | -.00770 | 1.66330 |
| .948 | 26.557 | 2.41010 | .95930 | .09080 | 1.12500 | 1.0510 | -.03540 | .00860 | -.00610 | 1.60580 |
| .949 | GRADIENT | .01120 | .06268 | .00985 | .06451 | -.00038 | .00019 | .00009 | .00010 | .56619 |

GRADIENT INTERVAL = -5.00/ 5.00

(RE7016) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-084 0A161 ORBITTER

REFERENCE DATA

SPEED = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC
LREF = 479.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 61/ 0 RM/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .979 | .050 | 2.28590 | -.06510 | .06190 | -.06500 | .11680 | -.03270 | .00050 | -.00320 | -.55770 |
| .979 | 2.172 | 2.28650 | .06580 | .04000 | .07430 | .11610 | -.02920 | .00050 | -.00420 | .58760 |
| .980 | 4.291 | 2.29910 | .13200 | .01690 | .21110 | .11650 | -.02480 | .00030 | -.00320 | 1.52940 |
| .979 | 6.424 | 2.31030 | .32770 | -.00220 | .34270 | .11450 | -.02620 | .00000 | -.00220 | 2.45710 |
| .979 | 8.576 | 2.30840 | .44310 | -.01460 | .46510 | .11230 | -.02590 | .00090 | -.00140 | 2.54050 |
| .979 | 10.733 | 2.30880 | .55030 | -.02410 | .58150 | .11040 | -.02540 | .00290 | -.00120 | 2.44430 |
| .981 | 12.907 | 2.29380 | .66080 | -.03150 | .70450 | .11590 | -.02340 | -.00020 | -.00230 | 2.36350 |
| .978 | 14.709 | 2.18390 | .75110 | -.03640 | .81910 | .11110 | -.02140 | .00310 | -.00220 | 2.36730 |
| .980 | 15.065 | 2.34370 | .86050 | -.04080 | .93610 | .11250 | -.01680 | -.00480 | -.00310 | 2.28240 |
| .979 | 17.274 | 2.33400 | .94970 | -.04200 | 1.04630 | .11150 | -.01370 | -.00820 | -.00480 | 2.09590 |
| .978 | 19.426 | 2.32120 | 1.03220 | -.03910 | 1.15300 | .10940 | -.01280 | -.01140 | -.00720 | 1.96420 |
| .979 | 21.560 | 2.31200 | 1.04280 | -.03100 | 1.18920 | .11430 | -.00780 | -.01240 | -.00720 | 1.79490 |
| .980 | 23.642 | 2.33680 | 1.02580 | .05240 | 1.19330 | .11400 | -.02060 | -.00910 | -.01220 | 1.65340 |
| .978 | 25.695 | 2.40580 | 1.02450 | .06710 | 1.20440 | .11590 | .00185 | -.00005 | -.00490 | 1.59140 |
| .979 | 26.646 | .00314 | -.06294 | -.01052 | .06311 | -.00007 | .00185 | -.00005 | -.00009 | .49222 |

RUN NO. 68/ 0 RM/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|--------|---------|---------|---------|---------|--------|----------|---------|---------|---------|
| 1.052 | .079 | 2.28230 | -.04610 | .05650 | -.04590 | .13840 | -.03700 | .00010 | -.00460 | -.33330 |
| 1.053 | 2.188 | 2.29200 | .09470 | .02980 | .10030 | .14290 | -.02470 | .00080 | -.00430 | .64680 |
| 1.051 | 4.308 | 2.30720 | .22550 | .00110 | .23680 | .14130 | -.02170 | -.00040 | -.00380 | 1.42110 |
| 1.049 | 6.442 | 2.32200 | .34690 | -.01650 | .36490 | .13930 | -.02570 | .00170 | -.00290 | 1.93450 |
| 1.051 | 8.601 | 2.32110 | .45510 | -.02740 | .48090 | .13670 | -.02590 | -.00070 | -.00240 | 2.19740 |
| 1.050 | 10.757 | 2.32040 | .56040 | -.03480 | .59580 | .13530 | -.02830 | .00010 | -.00220 | 2.31250 |
| 1.051 | 12.959 | 2.29680 | .66720 | -.04280 | .71540 | .13461 | -.02620 | -.00130 | -.00330 | 2.29080 |
| 1.046 | 15.103 | 2.34200 | .77530 | -.04860 | .83940 | .13481 | -.02580 | .00150 | -.00330 | 2.22220 |
| 1.059 | 17.331 | 2.34180 | .88170 | -.05120 | .97610 | .13451 | -.01810 | -.00450 | -.00630 | 2.12710 |
| 1.049 | 19.562 | 2.33340 | .98400 | -.07040 | 1.10150 | .13291 | -.02060 | -.00580 | -.00460 | 2.01610 |
| 1.048 | 21.629 | 2.33070 | 1.07490 | -.07490 | 1.21210 | .13241 | -.02140 | -.00780 | -.00290 | 1.89150 |
| 1.057 | 23.725 | 2.34310 | 1.10010 | -.04680 | 1.25940 | .13141 | -.02600 | -.00800 | -.00370 | 1.75470 |
| 1.057 | 25.785 | 2.35650 | 1.12170 | -.02490 | 1.30930 | .13161 | -.001480 | -.01080 | -.00620 | 1.63020 |
| 1.052 | 26.756 | 2.44540 | 1.12610 | -.00810 | 1.32710 | .13081 | -.00550 | -.01670 | -.00560 | 1.57650 |
| 1.052 | .00589 | .00589 | .00482 | -.01310 | .06684 | .00063 | .00362 | -.00012 | -.00019 | .41477 |

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OF POOR QUALITY

(RE7016) (02 AUG 76)

TABULATED DATA - 0A181 (ARC 11-97-87-09#)
ARC 11-97-87-09# 0A181 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XPRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YC
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RUN NO. 71/ 0 RVL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|---------|---------|--------|---------|---------|---------|---------|
| 1.099 | .051 | 2.27180 | -.04380 | .05098 | -.04370 | .13670 | -.02360 | .00088 | -.00450 | -.31620 |
| 1.100 | 2.177 | 2.30070 | .09360 | .02100 | .10110 | .14120 | -.03280 | .00100 | -.00420 | .65970 |
| 1.100 | 4.302 | 2.29640 | .22710 | -.00410 | .23840 | .14220 | -.01760 | -.00068 | -.00370 | 1.42170 |
| 1.098 | 6.436 | 2.30960 | .18100 | -.01860 | .36150 | .14140 | .02198 | .00050 | -.00320 | 1.89660 |
| 1.097 | 8.597 | 2.31960 | .44980 | -.02770 | .47598 | .13880 | -.03090 | .00000 | -.00220 | 2.15698 |
| 1.097 | 10.752 | 2.31800 | .55110 | -.03376 | .58640 | .13560 | -.03220 | .00110 | -.00230 | 2.26980 |
| 1.098 | 12.932 | 2.29930 | .66530 | -.04370 | .71300 | .13240 | -.03480 | .00100 | -.00190 | 2.30480 |
| 1.100 | 15.118 | 2.34400 | .78570 | -.05760 | .84960 | .13230 | -.03770 | .00150 | -.00150 | 2.24940 |
| 1.099 | 17.340 | 2.34110 | .89240 | -.06590 | .97840 | .13011 | -.02920 | .00130 | -.00070 | 2.13530 |
| 1.100 | 19.502 | 2.32930 | .98200 | -.07110 | 1.08870 | .13260 | -.02620 | .00360 | -.00170 | 2.01030 |
| 1.101 | 21.625 | 2.32240 | 1.04870 | -.06640 | 1.18020 | .13140 | -.02980 | .00370 | -.00030 | 1.88260 |
| 1.099 | 23.717 | 2.32930 | 1.08460 | -.04430 | 1.24180 | .13010 | -.02300 | .00770 | -.00410 | 1.75330 |
| 1.099 | 25.801 | 2.35680 | 1.13270 | -.03970 | 1.32100 | .12860 | -.02340 | .00990 | -.00280 | 1.63640 |
| 1.099 | 26.765 | 2.42250 | 1.14560 | -.03240 | 1.34790 | .12860 | -.02230 | .01100 | -.00410 | 1.56710 |
| 1.099 | .00565 | .06372 | .00466 | -.01294 | .00636 | .00682 | .00141 | -.00033 | -.00019 | -.40879 |

RUN NO. 78/ 0 RVL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|---------|---------|--------|---------|---------|---------|---------|
| 1.149 | .071 | 2.27590 | -.03000 | .04320 | -.02990 | .14340 | -.03460 | .00100 | -.00390 | -.20950 |
| 1.151 | 2.175 | 2.30860 | .09930 | .04470 | .10480 | .14450 | -.03610 | .00000 | -.00360 | .66980 |
| 1.150 | 4.291 | 2.31090 | .22360 | -.00940 | .23580 | .14388 | -.02620 | .00010 | -.00360 | 1.36810 |
| 1.147 | 6.426 | 2.31480 | .16110 | -.02680 | .35960 | .14180 | -.02230 | -.00020 | -.00390 | 1.89470 |
| 1.148 | 8.591 | 2.32190 | .45440 | -.03888 | .47750 | .13920 | -.02570 | .00100 | -.00380 | 2.15980 |
| 1.147 | 10.754 | 2.31430 | .55180 | -.04230 | .58710 | .13390 | -.02560 | .00040 | -.00320 | 2.26910 |
| 1.148 | 12.932 | 2.29340 | .66330 | -.05060 | .71080 | .13190 | -.02840 | .00080 | -.00200 | 2.30570 |
| 1.150 | 15.107 | 2.34420 | .77420 | -.06350 | .83810 | .13400 | -.03190 | .00070 | -.00040 | 2.22620 |
| 1.148 | 17.325 | 2.34460 | .87250 | -.06890 | .95510 | .13150 | -.02460 | .00210 | -.00310 | 2.00450 |
| 1.150 | 19.483 | 2.33280 | .96170 | -.07650 | 1.06670 | .13190 | -.02510 | -.00440 | -.00340 | 1.88560 |
| 1.149 | 21.606 | 2.32420 | 1.02300 | -.08530 | 1.15090 | .12780 | -.01420 | -.00970 | -.00390 | 1.76210 |
| 1.152 | 23.714 | 2.33850 | 1.07410 | -.05430 | 1.22850 | .12610 | -.01420 | -.01170 | -.00130 | 1.64700 |
| 1.148 | 25.821 | 2.35380 | 1.12330 | -.04580 | 1.30810 | .12510 | -.01960 | -.01940 | -.00240 | 1.50410 |
| 1.148 | 26.765 | 2.41960 | 1.12660 | -.04470 | 1.34100 | .12140 | -.01940 | -.00021 | -.00002 | 1.37857 |
| 1.146 | .00829 | .06010 | .00420 | -.01246 | .06278 | .00012 | .00199 | -.00021 | -.00002 | -.37857 |

(RE7016) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .080
AILRON = .000 BDFLAP = -7.170

TABULATED DATA - OA161 (ARC 11-97-87-09+)

ARC 11-97-87-09+ OA161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BPCF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 81 / 0 RV/L = 4.26 GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.204 | .050 | 2.29310 | -.02300 | .14540 | .03580 | -.02290 | .14540 | -.03380 | .00080 | -.00320 | -.15850 |
| 1.200 | 2.162 | 2.29310 | .09890 | .14930 | .01000 | .10490 | .14550 | -.03040 | .00020 | -.00300 | .68220 |
| 1.199 | 4.274 | 2.29860 | .3190 | .15110 | -.01290 | .23130 | .14430 | -.01990 | .00050 | -.00330 | 1.36480 |
| 1.197 | 6.420 | 2.30700 | .53840 | .18100 | -.0390 | .35690 | .14210 | -.02180 | -.00100 | -.00390 | 1.85920 |
| 1.198 | 8.583 | 2.31680 | .74970 | .20820 | -.04620 | .47570 | .13680 | -.02590 | .00100 | -.00400 | 2.15980 |
| 1.195 | 10.748 | 2.30980 | .95500 | .24240 | -.05210 | .59040 | .12460 | -.02950 | .00000 | -.00340 | 2.28970 |
| 1.192 | 12.928 | 2.29580 | .66210 | .28870 | -.06060 | .70990 | .13320 | -.03030 | -.00020 | -.00180 | 2.29360 |
| 1.196 | 15.099 | 2.33360 | .76310 | .34580 | -.07620 | .82680 | .13500 | -.02730 | -.00260 | -.00198 | 2.20760 |
| 1.194 | 17.320 | 2.33840 | .85970 | .41000 | -.08260 | .94280 | .13550 | -.02430 | -.00440 | -.00270 | 2.09650 |
| 1.194 | 19.481 | 2.32490 | .94840 | .47720 | -.09090 | 1.05320 | .13560 | -.02300 | -.00440 | -.00270 | 1.98740 |
| 1.189 | 21.684 | 2.30580 | 1.00840 | .53750 | -.07090 | 1.13630 | .12820 | -.00710 | -.00960 | -.00510 | 1.87790 |
| 1.191 | 23.709 | 2.32890 | 1.06690 | .60660 | -.06620 | 1.21900 | .12560 | -.01560 | -.01060 | -.00300 | 1.76130 |
| 1.188 | 25.797 | 2.35140 | 1.11100 | .67270 | -.05460 | 1.29340 | .12280 | -.02030 | -.00930 | -.00220 | 1.65150 |
| 1.194 | 28.822 | 2.35710 | 1.12900 | .70420 | -.06100 | 1.32530 | .11900 | -.01610 | -.01010 | -.00350 | 1.60310 |
| | GRADIENT | .00083 | .05750 | .00372 | -.01153 | .06018 | -.00026 | .00329 | -.08007 | -.00002 | .35063 |

RUN NO. 88 / 0 RV/L = 4.26 GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.297 | .056 | 2.26630 | -.01160 | .14740 | .02500 | -.01150 | .14740 | -.03740 | -.00090 | -.00230 | -.07870 |
| 1.299 | 2.147 | 2.32100 | .09880 | .15020 | .00330 | .10440 | .14640 | -.03760 | -.00130 | -.00270 | .65770 |
| 1.296 | 4.258 | 2.32850 | .31800 | .16020 | -.01670 | .22140 | .14410 | -.03220 | -.00160 | -.00320 | 1.31130 |
| 1.296 | 6.390 | 2.30360 | .53080 | .17830 | -.03580 | .33660 | .14150 | -.01140 | .00000 | -.00310 | 1.79930 |
| 1.298 | 8.552 | 2.31400 | .74290 | .20300 | -.04420 | .45040 | .13760 | -.01800 | -.00096 | -.00350 | 2.09300 |
| 1.294 | 10.717 | 2.31960 | .95370 | .23910 | -.06400 | .57210 | .13510 | -.01860 | -.00130 | -.00200 | 2.24580 |
| 1.294 | 12.893 | 2.30060 | .64320 | .28500 | -.07570 | .69050 | .13430 | -.02480 | -.00200 | -.00370 | 2.25650 |
| 1.294 | 15.061 | 2.35980 | .73780 | .33740 | -.08300 | .80010 | .13410 | -.03470 | -.00420 | -.00370 | 2.18670 |
| 1.294 | 17.276 | 2.39860 | .82900 | .39730 | -.09230 | .90960 | .13320 | -.02610 | -.00420 | -.00230 | 2.08560 |
| 1.294 | 19.434 | 2.32980 | .90960 | .46080 | -.09110 | 1.01110 | .13190 | -.01760 | -.00540 | -.00200 | 1.97390 |
| 1.293 | 21.584 | 2.32000 | .98370 | .52690 | -.09100 | 1.10860 | .12850 | -.01240 | -.00770 | -.00230 | 1.86690 |
| 1.298 | 23.673 | 2.35480 | 1.04410 | .59290 | -.08680 | 1.19430 | .12390 | -.00800 | -.00940 | -.00250 | 1.76100 |
| 1.292 | 25.779 | 2.35480 | 1.10000 | .66660 | -.07840 | 1.28040 | .12190 | -.01570 | -.01230 | -.00310 | 1.65010 |
| 1.292 | 26.812 | 2.36140 | 1.12300 | .70130 | -.07460 | 1.31860 | .11740 | -.00820 | -.01190 | -.00230 | 1.60120 |
| 1.293 | GRADIENT | .00506 | .05273 | .00306 | -.00992 | .05592 | -.00073 | .00124 | -.00031 | -.00002 | .33071 |

(RE7016) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A161 ORBITER

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XO
LREF = 474.6000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 379.0000 IN. ZO
SCALE = .0300

RUN NO. 91 / 0 RIV/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|---------|---------|--------|--------|---------|---------|---------|---------|---------|---------|
| 1.401 | .030 | 2.25650 | .00760 | .14560 | .01580 | .00750 | .14560 | -.06660 | .00090 | -.00210 | .05210 |
| 1.401 | 2.182 | 2.27530 | .09610 | .14750 | .00390 | .10150 | .14398 | -.01800 | .00100 | -.00240 | .65170 |
| 1.400 | 4.236 | 2.34330 | .20160 | .15698 | .02100 | .21870 | .14180 | -.04240 | -.00330 | -.00340 | 1.28600 |
| 1.400 | 6.354 | 2.33140 | .30590 | .17320 | .03790 | .32280 | .13830 | -.03390 | .00200 | -.00420 | 1.76370 |
| 1.399 | 8.519 | 2.31730 | .40670 | .19750 | .05170 | .43150 | .13510 | -.02960 | .00110 | -.00420 | 2.05920 |
| 1.399 | 10.672 | 2.31590 | .50390 | .23050 | .06440 | .53790 | .13280 | -.02380 | .00120 | -.00230 | 2.16590 |
| 1.399 | 12.843 | 2.30140 | .60570 | .27420 | .07800 | .65150 | .13000 | -.01660 | .00190 | -.00150 | 2.20840 |
| 1.399 | 15.006 | 2.32310 | .69710 | .32140 | .09590 | .75650 | .12730 | -.00260 | .00400 | -.00180 | 2.16850 |
| 1.399 | 17.265 | 2.34430 | .78670 | .37120 | .09640 | .86310 | .12490 | -.00370 | .00460 | -.00200 | 2.08580 |
| 1.399 | 19.399 | 2.31560 | .86900 | .43620 | .09990 | .96520 | .12140 | -.00300 | .00570 | -.00200 | 1.92280 |
| 1.399 | 21.520 | 2.29080 | .94860 | .50140 | .09910 | 1.05900 | .11790 | -.02100 | .00910 | -.00230 | 1.87610 |
| 1.399 | 23.636 | 2.33630 | 1.00410 | .56820 | .09100 | 1.14770 | .11590 | -.00860 | .01010 | -.00300 | 1.76730 |
| 1.399 | 25.743 | 2.33960 | 1.06100 | .64030 | .07370 | 1.23370 | .11290 | -.00820 | .00960 | -.00260 | 1.66670 |
| 1.399 | 26.784 | 2.31700 | 1.08760 | .67690 | .07370 | 1.27590 | .11420 | -.00820 | .00760 | -.00260 | 1.56670 |
| 1.399 | GRADIENT | .02056 | .04974 | .00269 | .00875 | .05235 | -.00095 | -.00377 | -.00076 | -.00029 | 3.1786 |

RUN NO. 324 / 0 RIV/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|---------|---------|--------|--------|---------|---------|---------|---------|---------|---------|
| 1.555 | .034 | 1.52120 | -.01320 | .14060 | .00860 | -.01310 | .14860 | .03250 | .00100 | -.00070 | .09410 |
| 1.555 | 2.023 | 1.53170 | .07730 | .14100 | .00750 | .08230 | .13820 | -.02950 | .00030 | -.00060 | .54830 |
| 1.555 | 4.100 | 1.52240 | .17100 | .14820 | .02250 | .18120 | .13560 | -.02810 | -.00030 | -.00090 | 1.16390 |
| 1.555 | 6.172 | 1.52130 | .26410 | .16170 | .03730 | .27990 | .13240 | -.02540 | .00090 | -.00090 | 1.63290 |
| 1.555 | 8.243 | 1.52190 | .35520 | .18440 | .05150 | .37800 | .13150 | -.02490 | .00100 | -.00100 | 1.92590 |
| 1.555 | 10.309 | 1.52240 | .43670 | .21190 | .05940 | .46760 | .13040 | -.02410 | .00120 | -.00120 | 2.06050 |
| 1.555 | 12.355 | 1.52630 | .51780 | .24430 | .06530 | .55810 | .12780 | -.02500 | .00140 | -.00140 | 2.14000 |
| 1.555 | 14.431 | 1.52840 | .59570 | .28260 | .07260 | .64730 | .12520 | -.02560 | .00150 | -.00150 | 2.10820 |
| 1.555 | 16.574 | 1.53150 | .67720 | .32940 | .07980 | .74310 | .12260 | -.02330 | .00170 | -.00170 | 2.05580 |
| 1.555 | 18.669 | 1.53340 | .75620 | .38070 | .08490 | .83820 | .11870 | -.01920 | .00380 | -.00070 | 1.98610 |
| 1.555 | 20.700 | 1.54050 | .83540 | .43660 | .08980 | .93650 | .11500 | -.01890 | .00560 | -.00080 | 1.90470 |
| 1.555 | 22.789 | 1.54370 | .90760 | .50340 | .09230 | 1.03180 | .11260 | -.01450 | .00720 | -.00090 | 1.80290 |
| 1.555 | 24.854 | 1.54930 | .96940 | .57040 | .09110 | 1.11940 | .11010 | -.01280 | .00860 | -.00130 | 1.69970 |
| 1.555 | 26.882 | 1.55150 | 1.00300 | .60720 | .09048 | 1.16750 | .10850 | -.00930 | .00930 | -.00140 | 1.59180 |
| 1.555 | GRADIENT | .00026 | .04533 | .00188 | .00762 | .04778 | -.00123 | -.00108 | -.00032 | -.00005 | 3.0682 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 ALPHA = 0.000 BOFLAP = -7.170

REFERENCE DATA
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 3274 0 RVL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|--------|--------|---------|--------|--------|--------|--------|---------|
| 1.750 | .019 | 1.70650 | .01798 | .00200 | .01798 | .13940 | .03350 | .00070 | .00070 | 1.3220 |
| 1.750 | 1.964 | 1.69860 | .06450 | .01090 | .06910 | .13250 | .03090 | .00060 | .00060 | 1.7780 |
| 1.750 | 4.028 | 1.70770 | .14760 | .02300 | .15710 | .12950 | .02930 | .00090 | .00090 | 1.05290 |
| 1.750 | 6.082 | 1.70330 | .23160 | .03480 | .24640 | .12730 | .02660 | .00070 | .00070 | 1.51550 |
| 1.750 | 8.114 | 1.70200 | .31600 | .04340 | .33310 | .12610 | .02320 | .00070 | .00070 | 1.81600 |
| 1.750 | 10.153 | 1.70570 | .38700 | .05230 | .41560 | .12520 | .02530 | .00090 | .00090 | 1.97010 |
| 1.750 | 12.175 | 1.70820 | .46450 | .05780 | .50160 | .12240 | .02570 | .00100 | .00100 | 2.06020 |
| 1.750 | 16.367 | 1.71230 | .61250 | .06480 | .67220 | .11510 | .02210 | .00120 | .00120 | 2.04240 |
| 1.750 | 18.461 | 1.71570 | .68550 | .06820 | .75960 | .11060 | .01940 | .00110 | .00110 | 1.98420 |
| 1.750 | 20.482 | 1.71980 | .76070 | .07300 | .85210 | .10720 | .01730 | .00120 | .00120 | 1.90850 |
| 1.750 | 22.560 | 1.72530 | .82950 | .07730 | .94190 | .10480 | .01630 | .00120 | .00120 | 1.81070 |
| 1.750 | 24.622 | 1.72910 | .89590 | .08220 | 1.03310 | .10160 | .01340 | .00090 | .00110 | 1.71540 |
| 1.750 | 25.647 | 1.73320 | .93190 | .08220 | 1.08190 | .10050 | .01250 | .00120 | .00120 | 1.58740 |
| 1.750 | GRADIENT | .00030 | .04088 | .00120 | .04323 | .00146 | .00105 | .00032 | .00005 | .29269 |

RUN NO. 3344 0 RVL = 3.05 GRADIENT INTERVAL = -5.00/ 4.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|--------|--------|---------|--------|--------|--------|--------|---------|
| 1.997 | .014 | 1.20880 | .03520 | .01320 | .03520 | .12740 | .02740 | .00090 | .00070 | 2.7590 |
| 1.997 | 2.037 | 1.20840 | .10420 | .02140 | .10870 | .12430 | .02600 | .00160 | .00060 | 81320 |
| 1.997 | 4.103 | 1.20720 | .17600 | .02890 | .18520 | .12140 | .02370 | .00050 | .00050 | 1.30990 |
| 1.997 | 6.145 | 1.20710 | .24420 | .03510 | .25840 | .11860 | .02240 | .00050 | .00050 | 1.67770 |
| 1.997 | 8.228 | 1.20650 | .31550 | .03850 | .33580 | .11740 | .02280 | .00070 | .00070 | 1.92130 |
| 1.997 | 10.257 | 1.20960 | .38580 | .04170 | .41280 | .11440 | .02200 | .00090 | .00090 | 2.07270 |
| 1.997 | 12.322 | 1.21140 | .46040 | .04510 | .49570 | .11170 | .02190 | .00100 | .00100 | 2.14260 |
| 1.997 | 14.395 | 1.21420 | .53320 | .04870 | .57820 | .10810 | .02040 | .00100 | .00100 | 2.14640 |
| 1.997 | 16.541 | 1.22160 | .60990 | .05210 | .66320 | .10490 | .01730 | .00110 | .00110 | 2.09420 |
| 1.997 | 18.628 | 1.40080 | .67620 | .05810 | .74800 | .10220 | .01520 | .00090 | .00080 | 1.92600 |
| 1.997 | 20.647 | 1.40360 | .74520 | .06280 | .83380 | .09930 | .01240 | .00030 | .00030 | 1.82970 |
| 1.997 | 22.734 | 1.41030 | .81500 | .06560 | .92430 | .09590 | .00990 | .00090 | .00090 | 1.73260 |
| 1.997 | 24.790 | 1.41460 | .88150 | .06600 | 1.01360 | .09230 | .00970 | .00130 | .00130 | 1.72000 |
| 1.997 | 25.825 | 1.41520 | .94720 | .06600 | 1.02220 | .09210 | .00930 | .00130 | .00130 | 1.72000 |
| 1.997 | GRADIENT | .00039 | .03444 | .00172 | .03668 | .00147 | .00061 | .00029 | .00005 | .25287 |

TABULATED DATA - 0A161 (ARC 11-97-87-09#)
ARC 11-97-87-09# 0A161 ORBITER

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0080 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 376.0000 IN. ZO
SCALE = .0300

RUN NO. 3464 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 2.249 | .102 | 1.07220 | -.02730 | .12140 | -.01190 | -.02750 | .12130 | -.02350 | -.00050 | -.00060 | -.22520 |
| 2.249 | 1.873 | 1.07130 | .03540 | .12040 | -.01740 | -.03930 | .11920 | -.02160 | -.00010 | -.00050 | -.29400 |
| 2.249 | 3.927 | 1.07630 | .09810 | .12350 | -.02290 | -.10630 | .11650 | -.01960 | -.00050 | -.00050 | .79468 |
| 2.249 | 5.985 | 1.07910 | .16260 | .13060 | -.02770 | -.17530 | .11290 | -.01770 | -.00110 | -.00040 | 1.24490 |
| 2.249 | 8.039 | 1.06980 | .22570 | .14340 | -.02970 | -.24360 | .11040 | -.01730 | -.00100 | -.00050 | 1.57430 |
| 2.249 | 10.081 | 1.07160 | .29120 | .16220 | -.03160 | -.31510 | .10860 | -.01790 | -.00110 | -.00070 | 1.79600 |
| 2.249 | 12.128 | 1.09060 | .35940 | .18530 | -.03420 | -.39030 | .10560 | -.01840 | -.00140 | -.00090 | 1.94020 |
| 2.249 | 14.207 | 1.08580 | .42870 | .21440 | -.03760 | -.46820 | .10260 | -.01940 | -.00140 | -.00110 | 1.99980 |
| 2.249 | 16.335 | 1.07460 | .49550 | .24980 | -.04100 | -.54570 | .10040 | -.02040 | -.00160 | -.00110 | 1.98350 |
| 2.249 | 18.469 | 1.08210 | .56250 | .33400 | -.04610 | -.70310 | .09450 | -.02100 | -.00170 | -.00100 | 1.87380 |
| 2.249 | 20.501 | 1.08600 | .62990 | .38550 | -.04970 | -.78580 | .09170 | -.02120 | -.00180 | -.00100 | 1.79250 |
| 2.249 | 22.558 | 1.09600 | .69990 | .44400 | -.05350 | -.87350 | .08900 | -.02140 | -.00190 | -.00100 | 1.70580 |
| 2.249 | 24.568 | 1.10270 | .75750 | .47450 | -.05570 | -.91630 | .08750 | -.02120 | -.00200 | -.00090 | 1.68250 |
| 2.249 | 25.577 | 1.09100 | .78870 | .47450 | -.05570 | -.91630 | .08750 | -.02120 | -.00200 | -.00090 | 1.68250 |
| 2.249 | GRADIENT | .0103 | .03112 | .00053 | -.00873 | .03320 | -.00119 | .00099 | -.90025 | .00002 | .25303 |

RUN NO. 4197 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | 1.116 | 2.10010 | -.02710 | .11560 | -.01730 | -.02690 | .11510 | -.02410 | -.00100 | -.00040 | -.23570 |
| 2.499 | 2.152 | 2.08860 | .02740 | .11380 | -.01980 | -.03160 | .11270 | -.02140 | -.00160 | -.00010 | -.24070 |
| 2.499 | 4.186 | 2.08010 | .08430 | .11680 | -.02680 | -.09250 | .10990 | -.02120 | -.00230 | -.00000 | .72660 |
| 2.499 | 6.220 | 2.07150 | .14160 | .12200 | -.02490 | -.15400 | .10596 | -.01920 | -.00230 | -.00010 | 1.16070 |
| 2.499 | 8.256 | 2.06830 | .20290 | .13350 | -.02590 | -.22000 | .10300 | -.01800 | -.00310 | -.00010 | 1.51940 |
| 2.499 | 10.295 | 2.05110 | .26960 | .15070 | -.02740 | -.28730 | .10100 | -.01970 | -.00340 | -.00070 | 1.75620 |
| 2.499 | 12.339 | 2.05830 | .33050 | .17370 | -.02950 | -.35000 | .09910 | -.01930 | -.00420 | -.00100 | 1.90240 |
| 2.499 | 14.379 | 2.05650 | .39440 | .20170 | -.03230 | -.43110 | .09570 | -.01760 | -.00510 | -.00110 | 1.97090 |
| 2.499 | 16.426 | 2.05880 | .46440 | .23560 | -.03490 | -.51210 | .09470 | -.01490 | -.00510 | -.00100 | 1.95232 |
| 2.499 | 18.469 | 2.05760 | .52820 | .27330 | -.03740 | -.58750 | .09190 | -.01390 | -.00600 | -.00120 | 1.88939 |
| 2.499 | 20.508 | 2.05200 | .59190 | .31670 | -.04050 | -.66540 | .08920 | -.01240 | -.00660 | -.00130 | 1.78550 |
| 2.499 | 22.558 | 2.05500 | .65520 | .36690 | -.04380 | -.74580 | .08750 | -.01260 | -.00710 | -.00120 | 1.69750 |
| 2.499 | 24.606 | 2.07120 | .71610 | .42190 | -.04750 | -.82680 | .08540 | -.01270 | -.00740 | -.00120 | 1.65420 |
| 2.499 | 25.626 | 2.07480 | .74520 | .45050 | -.04980 | -.86680 | .08399 | -.01220 | -.00780 | -.00110 | 1.65420 |
| 2.499 | GRADIENT | -.00491 | .02737 | .00025 | -.00135 | .02934 | -.00133 | .00071 | -.00032 | .00010 | -.23647 |

(RE7016) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09H)

ARC 11-97-87-09H 0A161 ORBITER

PARAMETRIC DATA

BETA = .003
ALLRON = -7.17U

BETA =
ALLRON =

REFERENCE DATA
SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8900 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 376.0000 IN. ZO
SCALE = .0300

RUN NO. 422/ 0 R/V/L = 1.95 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 3.499 | .089 | 2.2290 | -.03920 | .10210 | -.02300 | -.03810 | .10210 | -.02780 | -.00050 | -.00010 | -.37450 |
| 3.498 | 2.109 | 2.21920 | .00600 | .09950 | -.02200 | .00970 | .09950 | -.02880 | -.00100 | -.00060 | .06020 |
| 3.497 | 4.132 | 2.20630 | .05470 | .09340 | -.02170 | .06170 | .09320 | -.02468 | -.00140 | -.00070 | .55050 |
| 3.496 | 6.184 | 2.20240 | .10670 | .08940 | -.02140 | .11720 | .09130 | -.02700 | -.00200 | -.00100 | 1.03220 |
| 3.495 | 8.197 | 2.19930 | .15990 | .11300 | -.02140 | .17440 | .08940 | -.02330 | -.00210 | -.00120 | 1.41510 |
| 3.494 | 10.228 | 2.19660 | .21440 | .12770 | -.02130 | .23350 | .08760 | -.02250 | -.00250 | -.00150 | 1.67870 |
| 3.493 | 12.234 | 2.18640 | .27270 | .14740 | -.02130 | .29780 | .08610 | -.02150 | -.00330 | -.00220 | 1.85080 |
| 3.492 | 14.235 | 2.18490 | .33370 | .17230 | -.02120 | .36590 | .08480 | -.02180 | -.00370 | -.00240 | 1.95680 |
| 3.491 | 16.326 | 2.18330 | .39420 | .20160 | -.02100 | .43500 | .08260 | -.01850 | -.00400 | -.00260 | 1.93330 |
| 3.490 | 18.386 | 2.18300 | .45820 | .23700 | -.02090 | .50500 | .08060 | -.01870 | -.00480 | -.00230 | 1.86930 |
| 3.489 | 20.401 | 2.18870 | .54520 | .27570 | -.02070 | .57900 | .07880 | -.01780 | -.00580 | -.00210 | 1.78590 |
| 3.488 | 22.442 | 2.19360 | .57530 | .32210 | -.02040 | .65470 | .07810 | -.01590 | -.00650 | -.00190 | 1.70220 |
| 3.487 | 24.478 | 2.19920 | .63410 | .37250 | -.02030 | .73140 | .07630 | -.01460 | -.00720 | -.00200 | 1.65420 |
| 3.486 | 25.497 | 2.20200 | .68140 | .39980 | -.02030 | .76910 | .07620 | -.00679 | -.00800 | -.00200 | 1.65420 |
| 3.485 | GRADIENT | -.00909 | .02296 | -.00067 | .00032 | .02467 | -.00171 | | | | .22862 |

RUN NO. 429/ 0 R/V/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 3.499 | -.172 | 2.2340 | -.04140 | .09520 | -.02420 | -.04160 | .09510 | -.02890 | -.00050 | -.00010 | -.43430 |
| 3.498 | 1.858 | 2.24250 | .00040 | .09130 | -.02250 | .00340 | .09130 | -.02850 | -.00070 | -.00050 | .00470 |
| 3.497 | 3.873 | 2.23110 | .04340 | .09100 | -.02150 | .04940 | .08700 | -.02350 | -.00080 | -.00070 | .48200 |
| 3.496 | 5.904 | 2.22310 | .09090 | .09560 | -.02070 | .10610 | .08370 | -.02170 | -.00110 | -.00100 | .97200 |
| 3.495 | 7.920 | 2.21680 | .13970 | .10180 | -.01970 | .15240 | .08160 | -.02160 | -.00140 | -.00140 | 1.37240 |
| 3.494 | 9.947 | 2.21200 | .19330 | .11450 | -.01890 | .20720 | .07990 | -.02160 | -.00160 | -.00190 | 1.66220 |
| 3.493 | 11.976 | 2.20800 | .24430 | .12330 | -.01890 | .26840 | .07870 | -.01920 | -.00170 | -.00220 | 1.84690 |
| 3.492 | 14.010 | 2.20510 | .30200 | .13530 | -.01920 | .33060 | .07760 | -.01900 | -.00230 | -.00260 | 1.94420 |
| 3.491 | 16.043 | 2.20590 | .35910 | .14890 | -.02040 | .39360 | .07620 | -.01700 | -.00260 | -.00260 | 1.93960 |
| 3.490 | 18.075 | 2.20730 | .41740 | .16290 | -.02090 | .45650 | .07510 | -.01700 | -.00300 | -.00300 | 1.87950 |
| 3.489 | 20.108 | 2.21360 | .47780 | .17800 | -.02180 | .51930 | .07400 | -.02300 | -.00400 | -.00300 | 1.80330 |
| 3.488 | 22.139 | 2.21690 | .53340 | .19330 | -.02320 | .58150 | .07340 | -.01700 | -.00450 | -.00300 | 1.71460 |
| 3.487 | 24.178 | 2.22300 | .59200 | .20800 | -.02510 | .64500 | .07290 | -.01260 | -.00490 | -.00300 | 1.67170 |
| 3.486 | 25.196 | 2.2290 | .62800 | .21300 | -.02600 | .71960 | .07170 | -.01060 | -.00500 | -.00310 | 1.67170 |
| 3.485 | GRADIENT | -.00955 | .02095 | -.00126 | .00067 | .02250 | -.00207 | | | | .22853 |

(REZ017) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094-0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
A1LRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 47.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|--------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| .595 | .110 | 5.34810 | .05490 | .02650 | .05480 | .04970 | -.08710 | .00689 | -.00300 | -1.10730 |
| .596 | 2.152 | 5.36670 | .03850 | .02650 | .04030 | .04800 | -.08780 | .00670 | -.00450 | .77720 |
| .596 | 4.218 | 5.37430 | .13410 | .02580 | 1.3760 | .04310 | -.08660 | .00650 | -.00550 | 2.52510 |
| .596 | 6.303 | 5.37840 | .23808 | .02350 | 2.4330 | .03470 | -.08470 | .00610 | -.00640 | 3.68810 |
| .596 | 8.393 | 5.38380 | .34010 | .02170 | 3.4720 | .02260 | -.08530 | .00580 | -.00860 | 4.65550 |
| .596 | 10.516 | 5.37830 | .45260 | .01990 | 4.6160 | .00690 | -.08540 | .00600 | -.01130 | 4.97250 |
| .596 | 12.637 | 5.37290 | .56470 | .01730 | 5.7720 | .00580 | -.08250 | .00630 | -.01150 | 4.72180 |
| .596 | 14.748 | 5.36440 | .66450 | .01370 | 6.8570 | .00530 | -.08030 | .00580 | -.01150 | 3.92280 |
| .596 | 16.852 | 5.35680 | .75850 | .01270 | 7.9070 | .00500 | -.08240 | .00560 | -.01120 | 3.39430 |
| .596 | 18.957 | 5.34110 | .86100 | .00980 | 9.0930 | .00310 | -.08560 | .00690 | -.01120 | 2.94240 |
| .594 | 21.059 | 5.32930 | .99810 | .00100 | 1.02530 | -.00340 | -.09150 | .00840 | -.00970 | 2.62270 |
| .595 | 23.147 | 5.38900 | 1.06610 | -.00290 | 1.15628 | -.00761 | -.09420 | .00860 | -.00820 | 2.36630 |
| .595 | 25.192 | 5.40730 | 1.11010 | -.00280 | 1.22210 | -.01000 | -.09620 | .00880 | -.00580 | 2.17190 |
| .595 | 26.088 | 5.43040 | 1.04980 | .04990 | 1.16860 | -.00097 | -.07470 | .00220 | -.01810 | 2.04620 |
| | | .00807 | .04800 | -.00017 | .04683 | -.00161 | .00012 | -.08010 | -.00061 | .88404 |

GRADIENT

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|--------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| .697 | .100 | 5.35310 | -.05830 | .02960 | .05820 | .05130 | -.09180 | .00680 | -.00280 | -1.13800 |
| .698 | 2.144 | 5.33820 | .03790 | .02970 | .03980 | .04950 | -.08750 | .00710 | -.00430 | .74350 |
| .698 | 4.233 | 5.38400 | .13820 | .02860 | 1.4280 | .04440 | -.09060 | .00670 | -.00550 | 2.54800 |
| .697 | 6.329 | 5.38540 | .24580 | .02500 | 2.5130 | .03610 | -.08730 | .00600 | -.00650 | 3.66410 |
| .699 | 8.437 | 5.39730 | .35820 | .02200 | 3.6370 | .02470 | -.08540 | .00630 | -.00830 | 4.58060 |
| .698 | 10.568 | 5.38130 | .46728 | .01840 | 4.7810 | .01500 | -.08850 | .00690 | -.00850 | 4.55130 |
| .696 | 12.684 | 5.37670 | .56200 | .01610 | 5.7960 | .01590 | -.08670 | .00630 | -.01080 | 3.93580 |
| .697 | 14.798 | 5.38410 | .69590 | .01410 | 6.8300 | .01720 | -.08730 | .00590 | -.00880 | 3.43560 |
| .697 | 16.936 | 5.39490 | .81780 | .01070 | 7.9980 | .01810 | -.08590 | .00530 | -.00840 | 2.71540 |
| .697 | 19.067 | 5.39510 | .96310 | .00820 | 9.1950 | .01850 | -.08980 | .00380 | -.00670 | 2.46600 |
| .696 | 21.174 | 5.48830 | 1.09340 | .00620 | 1.02870 | .01610 | -.09040 | .00330 | -.00570 | 2.25860 |
| .696 | 23.284 | 5.41958 | 1.23650 | .01760 | 1.13250 | .01220 | -.08710 | -.00478 | -.00990 | 2.01970 |
| .696 | 25.273 | 5.41950 | 1.00120 | .06370 | 1.11700 | .02080 | -.06300 | -.01170 | -.00280 | 1.91380 |
| .695 | 26.158 | 5.46400 | .98100 | .08070 | 1.08390 | .02710 | -.05800 | -.01110 | -.03060 | 1.88997 |
| | | .00753 | .04780 | -.00024 | .04884 | -.00167 | .00024 | -.00063 | -.00063 | |

GRADIENT

(RE7017) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-87-87-094)

ARC 11-87-87-094 0A161 ORBITTER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.5000 IN. YMRP = .0000 IN. Y0
BREF = 939.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|---------|--------|--------|---------|--------|--------|--------|--------|----------|
| .800 | .077 | 5.35340 | .06770 | .03700 | .05770 | .05520 | .09220 | .00790 | .00260 | -1.22860 |
| .801 | 2.151 | 5.38270 | .03300 | .03580 | .03500 | .03350 | .09090 | .00910 | .00460 | 5.0260 |
| .799 | 4.249 | 5.39300 | .14090 | .03370 | .14490 | .04850 | .08940 | .00790 | .00560 | 2.38560 |
| .793 | 6.363 | 5.40290 | .25750 | .02390 | .26390 | .04350 | .09160 | .00670 | .00560 | 3.55360 |
| .797 | 8.478 | 5.40290 | .38620 | .02150 | .37610 | .03930 | .09130 | .00710 | .00520 | 3.88300 |
| .798 | 10.608 | 5.39490 | .45630 | .02140 | .47160 | .03950 | .08900 | .00670 | .00700 | 3.63140 |
| .801 | 12.741 | 5.39810 | .54720 | .01940 | .57020 | .04060 | .09050 | .00360 | .00840 | 3.30830 |
| .800 | 14.863 | 5.40260 | .63620 | .01820 | .66940 | .04230 | .08990 | .00280 | .00740 | 2.98250 |
| .799 | 16.998 | 5.42250 | .73810 | .01380 | .78310 | .04350 | .08730 | .00280 | .00720 | 2.48690 |
| .799 | 19.138 | 5.43560 | .82570 | .02880 | .88890 | .04300 | .08740 | .01160 | .00880 | 2.29590 |
| .792 | 21.246 | 5.44370 | .94590 | .04900 | .98530 | .04440 | .06700 | .01860 | .01460 | 2.07240 |
| .792 | 23.331 | 5.44250 | .91840 | .09690 | 1.09108 | .05250 | .06290 | .01910 | .02740 | 1.86280 |
| .796 | 26.266 | 5.50940 | .92520 | .09690 | 1.05780 | .05290 | .06300 | .01890 | .02870 | 1.78440 |
| .797 | | .00988 | .05001 | .00078 | .06097 | .00161 | .00067 | .00000 | .00072 | .86688 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|---------|--------|--------|---------|--------|--------|--------|--------|----------|
| .851 | .077 | 5.37230 | .07170 | .04210 | .07160 | .05980 | .09640 | .00860 | .00230 | -1.21380 |
| .852 | 2.157 | 5.39710 | .03350 | .04030 | .03570 | .05730 | .09730 | .00840 | .00460 | .57290 |
| .850 | 4.263 | 5.40020 | .14750 | .03530 | .15200 | .06490 | .09660 | .00830 | .00500 | 2.23200 |
| .849 | 6.384 | 5.39770 | .26268 | .02590 | .27020 | .05340 | .09650 | .00730 | .00470 | 3.15940 |
| .848 | 8.502 | 5.40220 | .36450 | .02320 | .37620 | .05130 | .08820 | .00470 | .00570 | 3.42780 |
| .848 | 10.623 | 5.39680 | .44900 | .02460 | .46550 | .05170 | .08650 | .00240 | .00732 | 3.38970 |
| .845 | 12.758 | 5.40220 | .53880 | .02050 | .56480 | .05110 | .08900 | .00130 | .00820 | 2.80020 |
| .845 | 14.892 | 5.43490 | .63080 | .01520 | .68750 | .05630 | .08740 | .00570 | .00590 | 2.58190 |
| .846 | 17.023 | 5.44950 | .72660 | .01190 | .77720 | .05470 | .08640 | .01170 | .00780 | 2.36770 |
| .846 | 19.177 | 5.45790 | .81560 | .03130 | .87520 | .05460 | .08290 | .01610 | .01120 | 1.97420 |
| .848 | 21.307 | 5.45090 | .91360 | .05900 | 1.02820 | .06240 | .08280 | .02470 | .02300 | 1.79590 |
| .844 | 23.369 | 5.45940 | .90320 | .08920 | 1.03160 | .06680 | .05680 | .02380 | .02300 | 1.71900 |
| .847 | 25.400 | 5.45620 | .91100 | .09730 | 1.05160 | .07090 | .05070 | .02530 | .02140 | 1.71900 |
| .851 | 26.333 | .00666 | .05234 | .00163 | .05339 | .00103 | .00012 | .00007 | .00064 | .82260 |

(REZ017) (02 AUG 76)

TABULATED DATA - 0A181 (ARC 11-97-87-094)
ARC 11-97-87-094-0A161 ORBITER

PARAMETRIC DATA

BETA = 5.088 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMP = 1076.6800 IN. XQ
LREF = 474.8800 IN. YMP = .0000 IN. YO
BREF = 938.6800 IN. ZMP = 375.0000 IN. ZO
SCALE = .0300

GRADIENT INTERVAL = -5.004 5 00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/O |
|------|--------|---------|---------|---------|---------|--------|---------|--------|---------|---------|
| .889 | .077 | 5.36790 | -.06090 | .03790 | -.06080 | .07850 | -.10498 | .00970 | -.00030 | -.86520 |
| .901 | 2.173 | 5.39690 | .05980 | .02870 | .06260 | .07100 | -.10010 | .01020 | -.00200 | .81640 |
| .898 | 4.282 | 5.40589 | .17370 | .03140 | .06960 | .06960 | -.10050 | .00910 | -.00310 | 2.09650 |
| .900 | 6.405 | 5.41170 | .27760 | .01870 | .06940 | .06940 | .09970 | .00720 | -.00540 | 2.74780 |
| .898 | 8.522 | 5.41360 | .37300 | .01870 | .06800 | .06800 | .09270 | .00560 | -.00740 | 2.99150 |
| .897 | 10.658 | 5.40500 | .45370 | .01800 | .06760 | .06760 | .09980 | .00320 | -.00740 | 2.94830 |
| .897 | 12.791 | 5.39880 | .55160 | .01050 | .06740 | .06740 | .07990 | .00050 | -.00730 | 2.81360 |
| .896 | 14.929 | 5.42120 | .64340 | .00790 | .06680 | .06680 | .07300 | .00390 | -.00730 | 2.85830 |
| .896 | 17.082 | 5.43810 | .75370 | .00790 | .06400 | .07110 | .06540 | .01040 | -.00590 | 2.46040 |
| .898 | 19.234 | 5.44940 | .83300 | .00880 | .06720 | .07010 | .06680 | .01470 | -.00640 | 2.28320 |
| .894 | 21.349 | 5.45240 | .89010 | .00990 | .06760 | .06900 | .07370 | .01790 | -.01200 | 2.10980 |
| .895 | 23.409 | 5.44410 | .91480 | .00990 | .06250 | .07820 | .07050 | .03140 | -.02160 | 1.90390 |
| .896 | 25.482 | 5.51500 | .92130 | .10720 | .06950 | .08230 | .07950 | .01690 | -.01410 | 1.73600 |
| .888 | 26.405 | .00903 | .05578 | -.00392 | .05712 | .08021 | .08170 | .00014 | -.01200 | 1.67710 |
| | | | | | | | | | | .76418 |

GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/O |
|------|--------|---------|---------|---------|---------|--------|---------|--------|---------|---------|
| .949 | .083 | 5.36950 | -.06230 | .05150 | -.06220 | .06990 | -.08800 | .00680 | -.00520 | -.62710 |
| .961 | 2.188 | 5.39920 | .06930 | .03360 | .07320 | .09950 | -.09190 | .00610 | -.00720 | .67860 |
| .960 | 4.307 | 5.39450 | .19950 | .01420 | .20760 | .09900 | -.08100 | .00680 | -.00590 | 1.75080 |
| .948 | 6.440 | 5.39850 | .31810 | .00140 | .33090 | .09940 | -.08430 | .00840 | -.00410 | 2.41070 |
| .948 | 8.574 | 5.41640 | .42660 | -.00630 | .44950 | .09320 | -.09930 | .00320 | -.00580 | 2.69420 |
| .950 | 10.730 | 5.40350 | .52740 | -.01480 | .53460 | .09360 | -.08000 | .00150 | -.00680 | 2.70250 |
| .949 | 12.882 | 5.37590 | .61990 | -.01800 | .69650 | .09080 | -.06030 | .00940 | -.00880 | 2.64420 |
| .948 | 15.016 | 5.40030 | .72690 | -.02310 | .77740 | .09190 | -.05940 | .00460 | -.00940 | 2.34810 |
| .948 | 17.167 | 5.41650 | .82210 | -.02440 | .86880 | .09440 | -.05580 | .00770 | -.01040 | 2.17740 |
| .952 | 19.342 | 5.42230 | .92370 | -.02400 | 1.01210 | .09440 | -.04910 | .01260 | -.01290 | 2.00900 |
| .949 | 21.455 | 5.43630 | .97090 | -.00190 | 1.07480 | .09410 | -.04130 | .01790 | -.01240 | 1.81920 |
| .948 | 23.531 | 5.45090 | .98950 | .04300 | 1.13270 | .10170 | -.04100 | .02420 | -.01880 | 1.68530 |
| .951 | 25.574 | 5.45420 | .98950 | .06140 | 1.13560 | .10160 | -.04100 | .02420 | -.01620 | 1.62820 |
| .947 | 26.464 | 5.52288 | .95360 | .08300 | 1.12620 | .10000 | -.04120 | .02320 | -.01160 | 1.56815 |
| | | | .06377 | -.00883 | .06377 | .00319 | -.02119 | .00019 | -.00016 | |

TABULATED DATA - 0A16L (ARC 11-97-87-094)

(RE7017) (0E AUG 76)

ARC 11-97-87-094 0A16L ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEXON = .000
 AILRON = .000 EOFFAP = -7.17%

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 986.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0360

RUN NO. 60/ 0 RM/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|----------|--------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| .981 | .085 | 5.35640 | -.09940 | .11670 | .05550 | -.05920 | .11680 | -.08660 | .00400 | -.08660 | -.50910 |
| .980 | 2.188 | 5.35730 | -.07200 | .11920 | .03570 | .07650 | .11640 | -.07760 | .00440 | -.09810 | -.60390 |
| .979 | 4.317 | 5.40160 | .20250 | .13320 | .01500 | .21190 | .11750 | -.07630 | .00360 | -.08760 | 1.52070 |
| .978 | 6.455 | 5.39930 | .32730 | .15150 | -.00190 | .34260 | .11370 | -.07750 | .00398 | -.00590 | 2.16070 |
| .977 | 8.602 | 5.40130 | .44040 | .18240 | -.01160 | .46270 | .11420 | -.08000 | .00480 | -.00500 | 2.41880 |
| .980 | 10.765 | 5.38490 | .54720 | .21730 | -.02050 | .57820 | .11130 | -.07920 | .00340 | -.06710 | 2.51830 |
| .977 | 12.899 | 5.38210 | .65270 | .25670 | -.03150 | .69360 | .10460 | -.07310 | .00400 | -.00870 | 2.54200 |
| .977 | 15.055 | 5.39370 | .75890 | .31370 | -.03640 | .81440 | .10300 | -.06860 | -.00870 | -.00890 | 2.41950 |
| .980 | 17.218 | 5.43530 | .85750 | .37940 | -.04390 | .93140 | .10860 | -.05490 | -.00870 | -.00930 | 2.26030 |
| .979 | 19.381 | 5.43750 | .95190 | .45260 | -.04820 | 1.04820 | .11110 | -.05700 | -.01640 | -.01140 | 2.10510 |
| .979 | 21.523 | 5.44630 | 1.02820 | .52040 | -.05550 | 1.14750 | .10690 | -.05700 | -.01680 | -.01600 | 1.97590 |
| .980 | 23.604 | 5.44600 | 1.04020 | .57920 | -.04800 | 1.18360 | .11060 | -.04510 | -.02160 | -.02160 | 1.80840 |
| .980 | 25.650 | 5.46550 | 1.03980 | .62260 | -.03760 | 1.20590 | .11160 | -.04270 | -.02710 | -.01920 | 1.65840 |
| .977 | 26.559 | 5.50280 | 1.01940 | .62770 | -.05780 | 1.19250 | .10570 | -.05230 | -.02080 | -.01310 | 1.62400 |
| GRADIENT | | .01057 | .06189 | .00390 | -.00957 | .06426 | .00017 | .00193 | -.00010 | -.00024 | .47956 |

RUN NO. 69/ 0 RM/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/L |
|-------|----------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.050 | .095 | 5.38510 | -.04260 | .13850 | .05050 | -.04240 | .13850 | -.08660 | .00480 | -.00990 | -.30730 |
| 1.052 | 2.205 | 5.41300 | -.09480 | .14390 | .02370 | .10030 | .14010 | -.09090 | .00298 | -.01070 | -.65900 |
| 1.050 | 4.330 | 5.39760 | .22700 | .15710 | -.00090 | .23820 | .13960 | -.07230 | .00268 | -.00970 | 1.44460 |
| 1.048 | 6.470 | 5.40530 | .34740 | .17770 | -.01710 | .36620 | .13740 | -.07330 | .00100 | -.00820 | 1.95500 |
| 1.052 | 8.620 | 5.40920 | .45390 | .20930 | -.02720 | .48020 | .13890 | -.07880 | .00160 | -.00760 | 2.16860 |
| 1.050 | 10.785 | 5.38100 | .56020 | .24270 | -.03410 | .59560 | .13660 | -.07230 | .00140 | -.00970 | 2.30830 |
| 1.048 | 12.932 | 5.38580 | .67110 | .28060 | -.04260 | .71850 | .13050 | -.07350 | .00040 | -.00910 | 2.35010 |
| 1.053 | 15.093 | 5.40420 | .77160 | .34390 | -.04550 | .83450 | .13100 | -.07420 | .00060 | -.00940 | 2.24460 |
| 1.049 | 17.252 | 5.43850 | .85970 | .40570 | -.04810 | .95080 | .12980 | -.07250 | -.00500 | -.01130 | 2.14110 |
| 1.049 | 19.426 | 5.45040 | .97020 | .48120 | -.05890 | 1.07508 | .13120 | -.06820 | -.00970 | -.01110 | 2.01600 |
| 1.051 | 21.574 | 5.45810 | 1.05510 | .55700 | -.06280 | 1.18560 | .13000 | -.06310 | -.01440 | -.01020 | 1.89440 |
| 1.048 | 23.671 | 5.47480 | 1.11850 | .63070 | -.05790 | 1.2770 | .12860 | -.06310 | -.01590 | -.00890 | 1.77300 |
| 1.050 | 25.729 | 5.47150 | 1.10900 | .68050 | -.01390 | 1.29440 | .13160 | -.04150 | -.02710 | -.01930 | 1.62960 |
| 1.050 | 26.650 | 5.53270 | .10810 | .69680 | -.00480 | 1.30290 | .12570 | -.04560 | -.02600 | -.01930 | 1.59040 |
| 1.048 | GRADIENT | .00294 | .06366 | .00439 | -.01216 | .06626 | .00056 | .00338 | -.00052 | -.00002 | .41371 |

(RE7017) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 EEEVON = .000
A RLFOIN = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 479.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 70# 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.100 | .085 | 5.35020 | -.03790 | .14070 | .04580 | -.03770 | .14080 | -.09150 | .00560 | -.00860 | -.26910 |
| 1.100 | 2.195 | 5.39510 | .10150 | .14620 | .04550 | -.10760 | .14220 | -.07850 | .00470 | -.00950 | .69440 |
| 1.098 | 4.329 | 5.39820 | .23200 | .16170 | -.00720 | .24350 | .14380 | -.07320 | .00350 | -.00930 | 1.43440 |
| 1.098 | 6.470 | 5.39650 | .34730 | .18330 | -.02140 | .36580 | .14390 | -.06810 | .00230 | -.00810 | 1.89510 |
| 1.098 | 8.622 | 5.40440 | .45340 | .21120 | -.03000 | .48000 | .14090 | -.07480 | .00220 | -.00770 | 2.14670 |
| 1.098 | 10.790 | 5.40820 | .55350 | .24380 | -.03350 | .58930 | .13590 | -.07540 | .00300 | -.00880 | 2.27000 |
| 1.098 | 12.940 | 5.38480 | .66400 | .28820 | -.04300 | .71150 | .13210 | -.07440 | .00200 | -.00930 | 2.30420 |
| 1.098 | 15.103 | 5.40530 | .77330 | .34350 | -.05230 | .83610 | .12020 | -.07790 | .00380 | -.01030 | 2.25120 |
| 1.098 | 17.264 | 5.44490 | .87190 | .40670 | -.05870 | .96340 | .12980 | -.07960 | -.00380 | -.00640 | 2.14380 |
| 1.098 | 19.442 | 5.45590 | .97050 | .48000 | -.06270 | 1.07490 | .12980 | -.07090 | -.00910 | -.00720 | 1.88890 |
| 1.097 | 21.576 | 5.46320 | 1.0690 | .55480 | -.06550 | 1.17220 | .12810 | -.06660 | -.01390 | -.00840 | 1.77020 |
| 1.099 | 23.679 | 5.47550 | 1.1620 | .62530 | -.06840 | 1.26480 | .12810 | -.06990 | -.01640 | -.00570 | 1.65160 |
| 1.101 | 25.755 | 5.48880 | 1.1320 | .68570 | -.07140 | 1.31790 | .12550 | -.06380 | -.02140 | -.01020 | 1.59690 |
| 1.098 | 26.713 | 5.46910 | 1.13940 | .71480 | -.07040 | 1.33910 | .12640 | -.06000 | -.02400 | -.01780 | 1.59690 |
| | GRADIENT | .01130 | .06361 | .00495 | -.01230 | .06628 | .00071 | .00196 | -.00050 | -.00007 | -.40143 |

RUN NO. 79# 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.149 | .088 | 5.37900 | -.03140 | .14190 | .04030 | -.03120 | .14200 | -.08470 | .00500 | -.00830 | -.22120 |
| 1.149 | 2.192 | 5.39800 | .09790 | .14620 | .04230 | -.10340 | .14230 | -.07710 | .00420 | -.00840 | .69980 |
| 1.148 | 4.314 | 5.41620 | .22270 | .15940 | -.01170 | .23410 | .14220 | -.07990 | .00170 | -.00830 | 1.38710 |
| 1.147 | 6.459 | 5.40910 | .34320 | .18020 | -.02850 | .36130 | .14048 | -.07020 | .00010 | -.00820 | 1.90500 |
| 1.147 | 8.620 | 5.41680 | .45580 | .20990 | -.03990 | .48210 | .13920 | -.07270 | -.00090 | -.00920 | 2.17190 |
| 1.143 | 10.792 | 5.39460 | .55770 | .24340 | -.04300 | .59340 | .13470 | -.06500 | -.00060 | -.00950 | 2.29130 |
| 1.145 | 12.940 | 5.39340 | .66170 | .28590 | -.05110 | .70910 | .13150 | -.07230 | -.00040 | -.00730 | 2.30620 |
| 1.142 | 15.103 | 5.41930 | .77100 | .34230 | -.06130 | .83360 | .12960 | -.07680 | -.00310 | -.00460 | 2.25330 |
| 1.149 | 17.263 | 5.44340 | .86520 | .40350 | -.06840 | .94590 | .12850 | -.07010 | -.00590 | -.00530 | 2.14420 |
| 1.141 | 19.440 | 5.49620 | .95950 | .47500 | -.07370 | 1.06290 | .12850 | -.06510 | -.01120 | -.00600 | 2.02810 |
| 1.142 | 21.583 | 5.46790 | 1.03780 | .54770 | -.07670 | 1.16550 | .12750 | -.06020 | -.01730 | -.00630 | 1.89480 |
| 1.141 | 23.683 | 5.47080 | 1.10030 | .61840 | -.07200 | 1.25800 | .12440 | -.05830 | -.01850 | -.00340 | 1.77920 |
| 1.141 | 25.770 | 5.49760 | 1.13250 | .68070 | -.07460 | 1.31580 | .12060 | -.05300 | -.02330 | -.00620 | 1.66370 |
| 1.149 | 26.789 | 5.49670 | 1.14510 | .71190 | -.07420 | 1.34300 | .11940 | -.05590 | -.02480 | -.00820 | 1.60860 |
| | GRADIENT | .00880 | .06014 | .00414 | -.01230 | .06278 | .00015 | .00113 | -.00078 | -.00000 | -.38890 |

(RE7017) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
A1LRON = .000 BDFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER

REFERENCE DATA

SREF = 2680.000 SQ.FT. XMRP = 1076.680 IN. X0
LREF = 479.800 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

GRADIENT INTERVAL = -5.00/ 5 00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.198 | .084 | 5.39670 | -.02200 | .03410 | -.02180 | .14540 | -.89150 | .00450 | -.00720 | -.15140 |
| 1.199 | 2.183 | 5.40760 | .09880 | .08820 | .10440 | .14440 | -.08190 | .00350 | -.00740 | .66680 |
| 1.197 | 4.303 | 5.41060 | .22660 | -.01480 | .23190 | .14300 | -.07650 | .00240 | -.00810 | 1.37860 |
| 1.196 | 6.449 | 5.40640 | .33730 | -.02230 | .36540 | .14101 | -.06960 | .00050 | -.00850 | 1.87370 |
| 1.195 | 8.608 | 5.40810 | .44880 | -.04420 | .47500 | .13963 | -.07420 | .00040 | -.01110 | 2.14870 |
| 1.193 | 10.785 | 5.39000 | .55940 | -.05360 | .59520 | .13643 | -.08860 | .00050 | -.00670 | 2.29260 |
| 1.197 | 12.934 | 5.40450 | .66070 | -.06120 | .70830 | .13233 | -.07930 | .00240 | -.00540 | 2.22750 |
| 1.196 | 15.094 | 5.40200 | .76460 | -.07240 | .82760 | .13243 | -.07160 | .00570 | -.00500 | 2.06660 |
| 1.190 | 17.251 | 5.44530 | .85460 | -.07840 | 1.04240 | .13243 | -.06820 | .01110 | -.01020 | 1.89600 |
| 1.192 | 19.423 | 5.46070 | .94010 | -.07460 | 1.25000 | .12413 | -.05670 | .01710 | -.01040 | 1.78800 |
| 1.190 | 21.566 | 5.46340 | 1.00990 | -.06320 | 1.22200 | .12113 | -.05080 | .02120 | -.00940 | 1.67000 |
| 1.191 | 23.667 | 5.46700 | 1.07060 | -.05450 | 1.30420 | .11763 | -.05630 | .02390 | -.00990 | 1.61720 |
| 1.191 | 25.763 | 5.48790 | 1.12340 | -.05450 | 1.33090 | .11523 | -.05540 | .02410 | -.00990 | 1.61720 |
| 1.196 | 26.783 | 5.49270 | 1.13520 | -.04199 | .06013 | -.00057 | .00355 | -.00060 | -.00027 | .36257 |
| 1.196 | GRADIENT | .00353 | .05750 | -.04199 | .06013 | -.00057 | .00355 | -.00060 | -.00027 | .36257 |

GRADIENT INTERVAL = -5.00/ 5 00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.294 | .072 | 5.39690 | -.01020 | .02229 | -.01000 | .14800 | -.08040 | .00460 | -.00540 | -.06900 |
| 1.298 | 2.164 | 5.41390 | .10240 | -.00030 | .10800 | .14670 | -.08320 | .00240 | -.00650 | .67980 |
| 1.299 | 4.284 | 5.42680 | .21390 | -.02000 | .22330 | .14450 | -.07980 | .00090 | -.00760 | 1.32820 |
| 1.295 | 6.422 | 5.42450 | .32486 | -.03740 | .34280 | .14210 | -.07530 | .00130 | -.00810 | 1.80900 |
| 1.296 | 8.577 | 5.43780 | .43140 | -.05080 | .45730 | .13960 | -.07870 | .00290 | -.00780 | 2.09200 |
| 1.293 | 10.749 | 5.43900 | .53580 | -.06320 | .57250 | .13720 | -.06930 | .00340 | -.00770 | 2.22210 |
| 1.293 | 12.894 | 5.40740 | .64120 | -.07630 | .68860 | .13470 | -.07080 | .00340 | -.00750 | 2.24980 |
| 1.294 | 15.053 | 5.42930 | .73840 | -.08460 | .80050 | .13320 | -.07390 | .00560 | -.00690 | 2.19430 |
| 1.293 | 17.213 | 5.44970 | .82680 | -.08870 | .90630 | .13150 | -.06440 | .00870 | -.00670 | 2.09970 |
| 1.292 | 19.380 | 5.46280 | .90440 | -.08630 | 1.00360 | .12770 | -.06270 | .01220 | -.00560 | 1.99420 |
| 1.298 | 21.524 | 5.48090 | .97720 | -.08170 | 1.09920 | .12360 | -.04680 | .01820 | -.00740 | 1.88540 |
| 1.292 | 23.632 | 5.47100 | 1.03760 | -.08170 | 1.18590 | .12470 | -.05060 | .02190 | -.00830 | 1.76560 |
| 1.292 | 25.737 | 5.49850 | 1.10200 | -.08020 | 1.26110 | .11960 | -.05060 | .02470 | -.00830 | 1.65960 |
| 1.291 | 26.766 | 5.51380 | 1.12090 | -.07500 | 1.31420 | .11670 | -.05440 | .02690 | -.00860 | 1.61030 |
| 1.296 | GRADIENT | .00710 | .05321 | -.01002 | .05587 | -.00063 | .00412 | -.00060 | -.00052 | .33187 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 373.0000 IN. Z0
SCALE = .0300

BETA = 5.000 ELEVOR = .000
A-ILFRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|--------|---------|--------|--------|---------|
| 1.399 | 0.95 | 5.39650 | 0.0680 | 0.1310 | 0.0660 | 1.4650 | 0.0650 | 0.0320 | 0.0470 | 0.4620 |
| 1.403 | 2.139 | 5.42510 | 0.0690 | 0.0560 | 1.0140 | 1.4440 | 0.09450 | 0.0090 | 0.0610 | 6.4780 |
| 1.399 | 4.258 | 5.42150 | 0.2160 | 0.2360 | 2.1270 | 1.4150 | 0.07550 | 0.0100 | 0.0720 | 1.28468 |
| 1.399 | 6.394 | 5.44510 | 3.0690 | 0.4000 | 3.2450 | 1.3920 | 0.06660 | 0.0270 | 0.0770 | 1.75966 |
| 1.397 | 8.538 | 5.43940 | 4.8770 | 0.5370 | 4.3270 | 1.3650 | 0.07590 | 0.0300 | 0.0780 | 2.04580 |
| 1.398 | 10.706 | 5.41280 | 5.9480 | 0.6420 | 5.3900 | 1.3400 | 0.07250 | 0.0260 | 0.0640 | 2.21460 |
| 1.397 | 12.846 | 5.38900 | 6.0110 | 0.7630 | 6.4650 | 1.3100 | 0.05990 | 0.0260 | 0.0680 | 2.17230 |
| 1.394 | 15.003 | 5.41560 | 6.9360 | 0.8350 | 7.5260 | 1.2890 | 0.05470 | 0.0180 | 0.0550 | 2.09160 |
| 1.395 | 17.160 | 5.44840 | 7.7940 | 0.9460 | 8.5470 | 1.2610 | 0.05970 | 0.0130 | 0.0550 | 2.00140 |
| 1.395 | 19.330 | 5.45930 | 8.6640 | 0.9940 | 9.6090 | 1.2170 | 0.05750 | 0.0130 | 0.0550 | 1.89030 |
| 1.398 | 21.470 | 5.47640 | 9.4010 | 0.9360 | 1.05680 | 1.1870 | 0.05960 | 0.0170 | 0.0550 | 1.77500 |
| 1.399 | 23.586 | 5.47010 | 1.00700 | 0.9360 | 1.14990 | 1.1700 | 0.05050 | 0.0190 | 0.0550 | 1.66680 |
| 1.399 | 25.688 | 5.51200 | 1.05960 | 0.8910 | 1.23050 | 1.1360 | 0.06710 | 0.0250 | 0.0730 | 1.61390 |
| 1.397 | 26.722 | 5.51260 | 1.08220 | 0.97890 | 1.26820 | 1.1250 | 0.05600 | 0.0250 | 0.0750 | 1.61390 |
| 1.399 | GRADIENT | 0.0830 | 0.0498 | 0.0873 | 0.05218 | 0.0113 | 0.0240 | 0.0052 | 0.0059 | 0.31659 |

RUN NO. 90/ 0 RNL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|--------|--------|--------|--------|---------|
| 1.556 | 0.73 | 4.56680 | 0.0970 | 0.0620 | 0.0950 | 1.4120 | 0.0360 | 0.0260 | 0.0240 | 0.06840 |
| 1.556 | 2.056 | 4.58260 | 0.0960 | 0.0930 | 0.8660 | 1.3820 | 0.6120 | 0.0120 | 0.0290 | 5.9140 |
| 1.556 | 4.135 | 4.56150 | 1.7730 | 0.2480 | 1.8760 | 1.3680 | 0.7460 | 0.0070 | 0.0310 | 1.18880 |
| 1.556 | 6.173 | 4.56570 | 2.6710 | 0.3660 | 2.8310 | 1.3350 | 0.7098 | 0.0260 | 0.0320 | 1.63700 |
| 1.555 | 8.241 | 4.56480 | 3.5650 | 0.4890 | 3.7920 | 1.3140 | 0.6920 | 0.0300 | 0.0370 | 1.93290 |
| 1.556 | 10.365 | 4.56330 | 4.4400 | 0.5970 | 4.7470 | 1.2900 | 0.6450 | 0.0360 | 0.0380 | 2.09550 |
| 1.556 | 12.346 | 4.56930 | 5.2140 | 0.6360 | 5.6140 | 1.2630 | 0.6730 | 0.0450 | 0.0290 | 2.14160 |
| 1.556 | 14.426 | 4.57500 | 6.0990 | 0.7230 | 6.5250 | 1.2430 | 0.6740 | 0.0620 | 0.0280 | 2.12400 |
| 1.556 | 16.567 | 4.57740 | 6.7930 | 0.7800 | 7.4470 | 1.2090 | 0.6218 | 0.0850 | 0.0300 | 2.06950 |
| 1.556 | 18.863 | 4.58160 | 7.5900 | 0.8340 | 8.4050 | 1.1690 | 0.5646 | 0.1160 | 0.0270 | 1.98690 |
| 1.556 | 20.692 | 4.58980 | 8.3700 | 0.8900 | 9.3730 | 1.1300 | 0.5360 | 0.1540 | 0.0300 | 1.91570 |
| 1.556 | 22.777 | 4.59530 | 9.0700 | 0.8960 | 1.02960 | 1.0970 | 0.5080 | 0.1770 | 0.0350 | 1.81980 |
| 1.556 | 24.837 | 4.59850 | 9.6760 | 0.8660 | 1.11630 | 1.0810 | 0.4490 | 0.2030 | 0.0400 | 1.70650 |
| 1.556 | 25.883 | 4.60260 | 9.9910 | 0.8580 | 1.16180 | 1.0630 | 0.4450 | 0.2130 | 0.0420 | 1.69830 |
| 1.556 | GRADIENT | 0.0136 | 0.04602 | 0.0763 | 0.04851 | 0.0133 | 0.0222 | 0.0081 | 0.0017 | 0.30957 |

RUN NO. 325/ 0 RNL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBIT PER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEED = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN. NO. 328 / 0 RN/L = 3.06 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|----------|----------|----------|----------|----------|---------|----------|---------|
| 1.750 | -0.038 | 4.74660 | -0.01940 | -0.00080 | -0.01950 | 1.3580 | -0.08490 | 0.0090 | -0.0230 | -1.1350 |
| 1.750 | 1.946 | 4.75010 | 0.06720 | -0.01328 | 0.07180 | 1.3270 | -0.08170 | -0.0080 | -0.0250 | 4.9800 |
| 1.750 | 3.984 | 4.75090 | 1.5250 | -0.02513 | 1.6198 | 1.2970 | -0.07820 | -0.0230 | -0.0240 | 1.0830 |
| 1.750 | 6.031 | 4.74900 | 2.3140 | -0.03803 | 2.4610 | 1.2710 | -0.07360 | -0.0390 | -0.0220 | 1.51970 |
| 1.750 | 8.093 | 4.74820 | 3.1260 | -0.04343 | 3.3350 | 1.2560 | -0.06970 | -0.0510 | -0.0220 | 1.83110 |
| 1.750 | 10.154 | 4.74790 | 3.8730 | -0.04923 | 4.1540 | 1.2480 | -0.06550 | -0.0760 | -0.0270 | 1.99600 |
| 1.750 | 12.191 | 4.75080 | 4.6980 | -0.05593 | 5.0250 | 1.2060 | -0.06460 | -0.0930 | -0.0310 | 2.07990 |
| 1.750 | 14.267 | 4.75770 | 5.4250 | -0.06060 | 5.8970 | 1.1760 | -0.06550 | -0.1170 | -0.0320 | 2.09210 |
| 1.750 | 16.405 | 4.76170 | 6.1500 | -0.06440 | 6.7470 | 1.0510 | -0.06180 | -0.1470 | -0.0310 | 2.05100 |
| 1.750 | 20.520 | 4.77240 | 7.6230 | -0.07300 | 8.5350 | 1.0310 | -0.05080 | -0.1980 | -0.0370 | 1.91580 |
| 1.750 | 22.595 | 4.77730 | 8.8760 | -0.07530 | 9.9300 | 1.0310 | -0.05080 | -0.2130 | -0.0380 | 1.71850 |
| 1.750 | 24.624 | 4.78130 | 9.9390 | -0.07810 | 1.02940 | 0.9990 | -0.04810 | -0.2200 | -0.0390 | 1.66850 |
| 1.750 | 25.675 | 4.78480 | 9.2690 | -0.07970 | 1.07600 | 0.9910 | -0.04780 | -0.2200 | -0.0390 | 1.66850 |
| 1.750 | GRADIENT | .00107 | 0.4175 | -0.0604 | 0.4411 | -0.00152 | 0.0217 | -0.0080 | -0.00002 | 2.9778 |

RUN. NO. 335 / 0 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|--------|----------|---------|----------|----------|---------|----------|---------|
| 1.997 | .010 | 4.41310 | 0.3410 | -0.01660 | 0.3410 | 1.2650 | -0.06420 | 0.0180 | -0.0240 | 2.6910 |
| 1.997 | 2.010 | 4.41120 | 1.0820 | -0.02583 | 1.1270 | 1.2390 | -0.07950 | -0.0030 | -0.0220 | 8.4640 |
| 1.997 | 6.158 | 4.41040 | 2.4970 | -0.03670 | 2.6400 | 1.1950 | -0.06990 | -0.0340 | -0.0190 | 1.69740 |
| 1.997 | 8.222 | 4.41040 | 3.1970 | -0.03990 | 3.4000 | 1.1720 | -0.06860 | -0.0410 | -0.0230 | 1.94270 |
| 1.997 | 10.282 | 4.41040 | 3.9270 | -0.04300 | 4.2000 | 1.1470 | -0.06390 | -0.0530 | -0.0260 | 2.09100 |
| 1.997 | 12.323 | 4.41330 | 4.6640 | -0.04650 | 5.0160 | 1.1110 | -0.06270 | -0.0700 | -0.0290 | 2.16330 |
| 1.997 | 14.399 | 4.41790 | 5.3780 | -0.04940 | 5.8280 | 1.0740 | -0.05810 | -0.0880 | -0.0320 | 2.16050 |
| 1.997 | 16.537 | 4.41590 | 6.1130 | -0.05390 | 6.6870 | 1.0420 | -0.05180 | -0.1150 | -0.0300 | 1.94060 |
| 1.997 | 20.645 | 4.42760 | 7.4950 | -0.06060 | 8.3760 | 0.9720 | -0.04740 | -0.1540 | -0.0350 | 1.83880 |
| 1.997 | 22.718 | 4.43420 | 8.1610 | -0.06390 | 9.2420 | 0.9420 | -0.04740 | -0.1670 | -0.0400 | 1.73540 |
| 1.997 | 24.785 | 4.43970 | 8.8930 | -0.06710 | 1.01400 | 0.9140 | -0.04840 | -0.1750 | -0.0460 | 1.63840 |
| 1.997 | GRADIENT | -0.0094 | 0.3552 | -0.0444 | 0.3873 | -0.00128 | 0.0241 | -0.0074 | -0.00110 | 2.8448 |

TABULATED DATA - OALB1 (ARC 11-97-87-094)
ARC 11-97-87-094 OALB1 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVOM = .000
A1LRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YG
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0308

RUN NO. 3454 0 RML = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 2.249 | -.096 | 4.11650 | -.02470 | .12090 | -.01950 | -.02498 | .12080 | -.08160 | .00350 | -.00248 | -.20450 |
| 2.249 | 1.880 | 4.11420 | 0.04050 | .12010 | -.02140 | -.04448 | .11870 | -.07740 | .00240 | -.00230 | .33750 |
| 2.249 | 3.931 | 4.11260 | 1.02800 | .12360 | -.02650 | .11106 | .11630 | -.07240 | .00890 | -.00230 | .83180 |
| 2.249 | 5.987 | 4.11170 | 1.6610 | .13150 | -.02850 | .17890 | .11340 | -.06740 | -.00870 | -.00220 | 1.26350 |
| 2.249 | 10.090 | 4.11160 | 2.9400 | .16410 | -.03280 | .31820 | .11000 | -.06040 | -.00320 | -.00260 | 1.79188 |
| 2.249 | 12.125 | 4.11300 | 3.6310 | .18810 | -.03530 | .39450 | .10760 | -.05650 | -.00410 | -.00310 | 1.93050 |
| 2.249 | 14.203 | 4.11280 | 4.3150 | .21710 | -.03810 | .47150 | .10460 | -.05370 | -.00340 | -.00330 | 1.98780 |
| 2.249 | 16.334 | 4.11970 | 4.9670 | .25150 | -.04060 | .54740 | .10170 | -.05060 | -.00330 | -.00330 | 1.97470 |
| 2.249 | 18.407 | 4.12000 | 5.6140 | .29340 | -.04390 | .62440 | .09820 | -.04800 | -.00330 | -.00330 | 1.93340 |
| 2.249 | 20.420 | 4.12390 | 6.2620 | .33460 | -.04720 | .70360 | .09510 | -.04640 | -.00330 | -.00330 | 1.87160 |
| 2.249 | 22.498 | 4.12560 | 6.9540 | .38630 | -.05050 | .78840 | .09160 | -.04360 | -.00400 | -.00400 | 1.79500 |
| 2.249 | 24.551 | 4.13110 | 7.6670 | .44330 | -.05370 | .87250 | .08860 | -.04350 | -.00430 | -.00430 | 1.70680 |
| 2.249 | 25.571 | 4.13380 | 7.8840 | .47410 | -.05550 | .91580 | .08750 | -.04420 | -.00440 | -.00440 | 1.66340 |
| 2.249 | .00097 | .00097 | .03165 | .00068 | -.00273 | .03374 | -.08172 | .08229 | -.00065 | .00002 | .25723 |

RUN NO. 4287 0 RML = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .105 | 5.18470 | -.02478 | .11390 | -.02830 | -.02450 | .11400 | -.08180 | .00440 | -.00250 | -.21700 |
| 2.499 | 2.137 | 5.15770 | 0.02950 | .11300 | -.02660 | -.03350 | .11180 | -.07760 | .00060 | -.00230 | .25850 |
| 2.499 | 4.180 | 5.13680 | 0.8730 | .11570 | -.02660 | .09550 | .10910 | -.07530 | -.00090 | -.00230 | .75458 |
| 2.499 | 6.215 | 5.11680 | 1.4420 | .12400 | -.02730 | .15660 | .10500 | -.06940 | -.00260 | -.00230 | 1.17870 |
| 2.499 | 8.269 | 5.10230 | 2.0590 | .13460 | -.02860 | .22310 | .10360 | -.06370 | -.00330 | -.00280 | 1.52970 |
| 2.499 | 10.299 | 5.09320 | 2.6820 | .15260 | -.02950 | .29120 | .10220 | -.06270 | -.00360 | -.00280 | 1.75750 |
| 2.499 | 12.350 | 5.08760 | 3.3350 | .17570 | -.03150 | .36348 | .10030 | -.06270 | -.00590 | -.00410 | 1.89860 |
| 2.499 | 14.386 | 5.08510 | 3.9840 | .20250 | -.03450 | .43720 | .09690 | -.06480 | -.00790 | -.00490 | 1.97220 |
| 2.499 | 16.431 | 5.08630 | 4.6600 | .23610 | -.03730 | .51380 | .09460 | -.06480 | -.00530 | -.00530 | 1.97420 |
| 2.499 | 18.469 | 5.09260 | 5.3150 | .27500 | -.04050 | .59130 | .09240 | -.06440 | -.00400 | -.00570 | 1.83300 |
| 2.499 | 20.508 | 5.10370 | 5.9400 | .31840 | -.04330 | .66798 | .09010 | -.06440 | -.01140 | -.00650 | 1.65580 |
| 2.499 | 22.558 | 5.11660 | 6.5760 | .36760 | -.04660 | .74880 | .08720 | -.06240 | -.01400 | -.00680 | 1.78950 |
| 2.499 | 24.603 | 5.13520 | 7.1850 | .42210 | -.04940 | .82900 | .08460 | -.05200 | -.01330 | -.00680 | 1.70230 |
| 2.499 | 25.622 | 5.14500 | 7.8446 | .45120 | -.05120 | .86990 | .08320 | -.05120 | -.01370 | -.00740 | 1.65860 |
| 2.499 | .01183 | .01183 | .02749 | .00044 | -.00135 | .02945 | -.00120 | .06159 | -.00056 | .00005 | .23844 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALFRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.680 IN. XO.
LREF = 474.800 IN. YMRP = .000 IN. YO.
BREF = 938.680 IN. ZMRP = 375.080 IN. ZO.
SCALE = .0300

RUN NO. 421/ 0 RVAL = 1.96 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .103 | 9.34720 | -.02940 | .10300 | -.02418 | -.02920 | .10300 | -.07970 | .00100 | -.00160 | -.28680 |
| 3.040 | 2.135 | 5.32150 | .01240 | .10050 | -.02390 | .01620 | .10000 | -.07760 | .00100 | -.00210 | -.12370 |
| 3.040 | 4.159 | 5.29880 | .06428 | .10100 | -.02430 | .07130 | .09610 | -.07290 | -.00250 | -.00250 | .63540 |
| 3.040 | 6.187 | 5.28020 | .11550 | .10590 | -.02430 | .12630 | .08280 | -.06900 | -.09278 | -.00290 | 1.09140 |
| 3.040 | 8.229 | 5.26440 | .17010 | .11600 | -.02421 | .18500 | .09058 | -.06330 | -.00350 | -.00350 | 1.46590 |
| 3.040 | 10.298 | 5.25870 | .22500 | .13140 | -.02450 | .24480 | .09938 | -.05418 | -.00450 | -.00450 | 1.71170 |
| 3.040 | 12.368 | 5.24790 | .28330 | .15120 | -.02490 | .30900 | .08758 | -.05940 | -.00490 | -.00530 | 1.87410 |
| 3.040 | 14.329 | 5.24680 | .34150 | .17550 | -.02560 | .37430 | .08550 | -.05928 | -.00600 | -.00590 | 1.94620 |
| 3.040 | 16.362 | 5.25010 | .40098 | .20480 | -.02690 | .44230 | .08360 | -.06010 | -.00728 | -.00650 | 1.95710 |
| 3.040 | 18.392 | 5.25370 | .46170 | .24880 | -.02890 | .51390 | .08210 | -.05500 | -.00778 | -.00710 | 1.92280 |
| 3.040 | 20.433 | 5.26360 | .52160 | .28830 | -.03080 | .58660 | .08058 | -.05380 | -.00840 | -.00740 | 1.88100 |
| 3.040 | 22.466 | 5.27650 | .58280 | .32570 | -.03340 | .66230 | .07868 | -.05020 | -.00930 | -.00740 | 1.78780 |
| 3.040 | 24.499 | 5.29440 | .63900 | .37620 | -.03610 | .73740 | .07710 | -.04840 | -.01130 | -.00750 | 1.69860 |
| 3.040 | 25.517 | 5.30360 | .66730 | .40340 | -.03690 | .77600 | .07660 | -.04540 | -.01180 | -.00760 | 1.65420 |
| GRADIENT | | -.01193 | .02307 | -.00049 | -.00005 | .02477 | -.00170 | .00168 | -.00054 | -.00022 | -.28708 |

RUN NO. 430/ 0 RVAL = 2.08 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 3.499 | -.182 | 5.47470 | -.03930 | .09510 | -.02590 | -.03960 | .09420 | -.07720 | .00000 | -.00080 | -.44350 |
| 3.499 | 1.835 | 5.45060 | .04210 | .09180 | -.02460 | .00500 | .09160 | -.07830 | -.00090 | -.00170 | -.02260 |
| 3.499 | 3.868 | 5.42690 | .04790 | .08080 | -.02390 | .05390 | .08730 | -.07280 | -.00478 | -.00230 | .52770 |
| 3.499 | 5.892 | 5.40760 | .09630 | .09478 | -.02370 | .10560 | .08430 | -.06760 | -.00260 | -.00290 | 1.01110 |
| 3.499 | 7.919 | 5.39100 | .14210 | .10270 | -.02260 | .15498 | .08210 | -.06200 | -.00270 | -.00400 | 1.38390 |
| 3.499 | 11.986 | 5.37680 | .24550 | .13290 | -.02100 | .26770 | .07900 | -.06260 | -.00430 | -.00600 | 1.84680 |
| 3.499 | 14.004 | 5.37600 | .30140 | .15520 | -.02089 | .33000 | .07760 | -.06300 | -.00550 | -.00680 | 1.94240 |
| 3.499 | 16.042 | 5.37580 | .35650 | .18210 | -.02120 | .39290 | .07658 | -.05870 | -.00570 | -.00770 | 1.96790 |
| 3.499 | 18.068 | 5.38310 | .41360 | .21430 | -.02160 | .45960 | .07540 | -.05930 | -.00710 | -.00820 | 1.93020 |
| 3.499 | 20.102 | 5.39120 | .47270 | .25200 | -.02310 | .53060 | .07420 | -.05630 | -.00758 | -.00860 | 1.87600 |
| 3.499 | 22.135 | 5.40690 | .53150 | .29510 | -.02480 | .60350 | .07310 | -.05620 | -.00900 | -.00890 | 1.80110 |
| 3.499 | 24.166 | 5.42170 | .58998 | .34340 | -.02668 | .67880 | .07190 | -.05000 | -.00970 | -.00910 | 1.71760 |
| 3.499 | 25.182 | 5.43390 | .61720 | .36840 | -.02680 | .71570 | .07160 | -.05300 | -.01058 | -.00940 | 1.67100 |
| GRADIENT | | -.01180 | .02153 | -.00105 | .00049 | .02308 | -.00188 | .00105 | -.00042 | -.00037 | -.23238 |

TABULATED DATA - 0A161 (ARC 11-97-87-084)
ARC 11-97-87-084 0A161 ORBITER

REFERENCE DATA

MACH = 2690 .0000 SQ.FT. XMRP = 1078.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 379.0800 IN. ZO
SCALE = .0300

BETA = -5.000 ELEVON = .000
AILRON = 2.500 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 168/ 0 RV/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|----------|
| .597 | .137 | -4.92820 | -.05330 | .05080 | -.03160 | -.03320 | .05090 | .07920 | -.00930 | .01270 | -1.09070 |
| .597 | 2.147 | -4.93786 | .03798 | .05070 | .03170 | .03988 | .04930 | .07090 | -.00910 | .01420 | -.74690 |
| .598 | 4.184 | -4.93470 | 1.3360 | .06400 | .03110 | .03720 | .04410 | .07298 | -.00420 | .01560 | 2.47580 |
| .597 | 6.270 | -4.92960 | 2.3220 | .06100 | .02890 | .23750 | .07330 | .07140 | -.00360 | .01650 | 3.80370 |
| .597 | 8.363 | -4.91650 | 3.3770 | .07260 | .02720 | .34460 | .02270 | .06990 | -.00460 | .01980 | 4.65320 |
| .517 | 10.474 | -4.90530 | 4.4590 | .09020 | .02610 | .45480 | .02760 | .06520 | -.00450 | .02280 | 4.94530 |
| .597 | 12.585 | -4.87930 | 5.5630 | .11800 | .02330 | .57160 | -.00670 | .06510 | -.00400 | .02470 | 4.47410 |
| .597 | 14.694 | -4.87280 | 6.6950 | .14330 | .02110 | .67960 | -.00630 | .07800 | -.00650 | .02000 | 4.01360 |
| .587 | 16.791 | -4.87870 | 7.9480 | .22310 | .01710 | .78710 | -.00450 | .07800 | -.00650 | .01760 | 3.38400 |
| .597 | 18.909 | -4.90630 | 8.4160 | .28810 | .01240 | .88958 | -.00010 | .07820 | -.00640 | .01510 | 2.92060 |
| .597 | 21.013 | -4.90120 | 9.3050 | .35720 | .01000 | .99670 | -.00200 | .06350 | -.00600 | .00990 | 2.37500 |
| .597 | 23.117 | -4.89310 | 1.0870 | .42850 | .00700 | 1.10420 | -.00590 | .09850 | -.00500 | .00400 | 2.17650 |
| .587 | 25.200 | -4.88300 | 1.0820 | .49740 | .00400 | 1.19140 | -.01090 | .09930 | -.00470 | .00300 | 2.05130 |
| .598 | 28.286 | -4.87030 | 1.0540 | .51420 | .00860 | 1.17350 | -.00440 | .06220 | -.00070 | .00930 | 2.05130 |
| | GRADIENT | -.00159 | .04607 | .00079 | -.00012 | .04693 | -.00168 | -.00007 | .00027 | .00871 | .86914 |

RUN NO. 161/ 0 RV/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|----------|---------|--------|---------|---------|--------|---------|---------|--------|---------|
| .900 | .110 | -4.96780 | -.05600 | .07090 | -.04370 | -.05580 | .07100 | .08250 | -.00340 | .00938 | -.78900 |
| .901 | 2.177 | -4.96670 | .06150 | .07380 | .03370 | .06420 | .07148 | .08820 | -.00320 | .01020 | -.83280 |
| .899 | 4.268 | -4.97330 | 1.7490 | .08430 | .02660 | .18868 | .07110 | .08598 | -.00350 | .00950 | 2.07350 |
| .899 | 6.368 | -4.96170 | 2.7700 | 1.0030 | .02290 | .28650 | .08270 | .08270 | -.00360 | .01140 | 2.76330 |
| .899 | 8.465 | -4.94850 | 3.7360 | 1.2340 | .02060 | .38810 | .06890 | .07850 | -.00300 | .01480 | 2.98040 |
| .899 | 10.612 | -4.94230 | 4.7080 | 1.5730 | .01670 | .49170 | .06790 | .07680 | -.00220 | .01690 | 2.99350 |
| .899 | 12.739 | -4.92700 | 5.6410 | 1.9310 | .01230 | .59410 | .06988 | .07820 | -.00138 | .01620 | 2.83250 |
| .900 | 14.863 | -4.93200 | 6.5990 | 2.4990 | .00820 | .69900 | .07280 | .07400 | -.00268 | .01450 | 2.62810 |
| .901 | 17.095 | -4.94330 | 7.5040 | 3.0720 | .00410 | .80748 | .07400 | .07848 | -.00620 | .01410 | 2.44270 |
| .898 | 19.172 | -4.95970 | 8.2840 | 3.5990 | .01310 | .89310 | .07059 | .07530 | .01120 | .01320 | 2.27940 |
| .900 | 21.310 | -4.96780 | 8.8600 | 4.2880 | .02860 | .97910 | .07190 | .07870 | .01550 | .01250 | 2.09540 |
| .900 | 23.425 | -4.95980 | 9.1690 | 4.7820 | .06360 | 1.03140 | .07438 | .06880 | .02220 | .01860 | 1.91710 |
| .902 | 25.498 | -4.91580 | 9.1610 | 5.2820 | 1.0070 | 1.05420 | .08248 | .07700 | .00820 | .01380 | 1.73430 |
| .899 | 28.506 | -4.91220 | 9.1250 | 5.4120 | 1.1340 | 1.05988 | .08860 | .09520 | .00420 | .01380 | 1.67400 |
| | GRADIENT | -.00133 | .05587 | .00323 | -.00412 | .05699 | .00002 | -.00106 | .00002 | .00029 | -.69001 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2590.0000 SO.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = 0000.0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = 0.3000

BETA = 0.000 ELEVON = 0.000
AIRLON = 2.580 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 170/ 0 RVAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|----------|----------|---------|--------|---------|
| 1.199 | 102 | -4.97120 | -0.2220 | 14570 | 03610 | 02200 | 14570 | 06110 | -0.0570 | 01400 | 15250 |
| 1.200 | 2.178 | -4.96860 | 0.9330 | 14890 | 01060 | 10490 | 14590 | 07780 | -0.0480 | 01490 | 66670 |
| 1.199 | 4.278 | -4.96650 | 21940 | 16020 | 01300 | 23070 | 14340 | 07400 | -0.0380 | 01440 | 136920 |
| 1.195 | 8.545 | -4.94420 | 44600 | 20710 | -0.4200 | 47180 | 13880 | 07010 | -0.0170 | 01510 | 215310 |
| 1.195 | 10.698 | -4.93260 | 54940 | 24300 | -0.4890 | 58490 | 13680 | 06700 | -0.0240 | 01600 | 226120 |
| 1.195 | 12.856 | -4.94070 | 69950 | 28800 | -0.6029 | 70710 | 13400 | 06700 | -0.0120 | 01360 | 229010 |
| 1.195 | 15.028 | -4.95710 | 76710 | 34400 | -0.7179 | 83000 | 13330 | 07880 | -0.0130 | 01270 | 223000 |
| 1.195 | 17.189 | -4.95200 | 86740 | 40430 | -0.7550 | 93860 | 13290 | 07330 | -0.0360 | 01240 | 212060 |
| 1.195 | 21.509 | -4.95800 | 1.00790 | 53320 | -0.7440 | 1.13320 | 12650 | 05860 | -0.1300 | 01330 | 1.89050 |
| | GRADIENT | 0.0113 | 0.05785 | 0.0348 | -0.0176 | 0.06051 | -0.00055 | -0.00170 | 0.0046 | 0.0010 | 0.36434 |

RUN NO. 171/ 0 RVAL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.404 | 0.078 | -4.97920 | -0.0670 | 14730 | 01500 | 00650 | 14730 | 07660 | -0.0540 | 00960 | 04570 |
| 1.402 | 4.234 | -4.97250 | 2.0060 | 15700 | -0.2200 | 21170 | 14180 | 06510 | -0.0410 | 01160 | 1.27780 |
| 1.400 | 8.490 | -4.93810 | 4.0460 | 19820 | -0.5880 | 42940 | 13630 | 05640 | -0.0080 | 01170 | 2.04080 |
| 1.389 | 10.633 | -4.94760 | 5.0150 | 23040 | -0.6210 | 53540 | 13380 | 06528 | 0.0010 | 01160 | 2.17660 |
| 1.400 | 12.779 | -4.95450 | 5.9480 | 27000 | -0.7420 | 63970 | 13180 | 07550 | 0.0070 | 01330 | 2.20270 |
| 1.398 | 14.946 | -4.97770 | 6.8870 | 31780 | -0.8050 | 74740 | 12940 | 08250 | 0.0350 | 01060 | 2.16750 |
| 1.397 | 17.182 | -4.95930 | 7.7840 | 37140 | -0.8660 | 85320 | 12610 | 06770 | 0.0620 | 01070 | 2.09580 |
| 1.391 | 21.445 | -4.97150 | 94260 | 49570 | -0.9280 | 1.05930 | 11860 | 05900 | -0.1500 | 01070 | 1.89390 |
| | GRADIENT | 0.0161 | 0.0233 | 0.0233 | -0.0890 | 0.05251 | -0.0132 | -0.0277 | 0.0031 | 0.0048 | 0.31850 |

TABLATED DATA -- 0A161 (ARC 11-97-87-09H)
ARC 11-97-87-09H 0A161 ORBITER

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1075.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = .000
AILRON = -7.170

BETA = -2.000
AILRON = -2.500

GRADIENT INTERVAL = -5.00/ 5.00

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|----------|
| .597 | 1.104 | -1.87680 | -.06150 | .05330 | .03440 | -.06150 | .05340 | .02330 | -.00060 | .01000 | -1.15740 |
| .597 | 2.124 | -1.85230 | .06270 | .05270 | .03430 | .03080 | .05160 | .02040 | -.00040 | .01090 | .56180 |
| .597 | 4.172 | -1.84450 | 1.2690 | .06598 | .03350 | 1.3060 | .04610 | .02110 | .00000 | .01150 | 2.26820 |
| .598 | 6.250 | -1.83580 | 2.2630 | .06150 | .02230 | 2.3170 | .03640 | .02060 | .00020 | .01210 | 3.88280 |
| .595 | 8.337 | -1.83640 | 3.3150 | .07270 | .02870 | 3.3860 | .02380 | .01850 | -.00040 | .01340 | 4.56150 |
| .595 | 10.446 | -1.83580 | 4.3830 | .09030 | .02720 | 4.4740 | .00950 | .01980 | -.00030 | .01560 | 4.85450 |
| .595 | 12.572 | -1.82620 | 5.4870 | .11720 | .02760 | 5.6110 | -.00500 | .01920 | .00000 | .01630 | 4.66080 |
| .597 | 14.668 | -1.79660 | 6.6010 | .16410 | .02500 | 6.7040 | -.00590 | .02280 | -.00190 | .01330 | 3.96190 |
| .597 | 16.803 | -1.85630 | 7.7920 | .22040 | .02190 | 7.7130 | -.00270 | .02910 | -.00220 | .01070 | 3.35380 |
| .597 | 18.935 | -1.89580 | 8.9620 | .29080 | .01510 | 8.8500 | .00300 | .02790 | -.00170 | .01000 | 2.86350 |
| .597 | 21.050 | -1.84870 | 9.3090 | 36.330 | .00950 | 9.9930 | .00460 | .03130 | -.00170 | .00720 | 2.56260 |
| .597 | 23.139 | -1.89690 | 1.00840 | 4.3300 | .01740 | 1.09740 | .00190 | .03460 | .00060 | .00470 | 2.32870 |
| .598 | 25.211 | -1.81190 | 1.49720 | 5.9450 | .03450 | 1.16790 | -.00030 | .03710 | .00040 | .00198 | 2.12530 |
| .597 | 26.289 | -1.79700 | 1.04160 | 5.1400 | .05580 | 1.16150 | .0010 | .03240 | .00160 | .00360 | 2.02640 |
| | GRADIENT | .00793 | .04634 | .00054 | -.00022 | .04722 | -.00180 | -.00054 | .00015 | .00037 | .84625 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|----------|---------|--------|---------|---------|--------|--------|---------|---------|---------|
| .900 | .078 | -1.87970 | -.06150 | .07270 | .04810 | -.06140 | .07280 | .02050 | .00140 | .00800 | -.84560 |
| .902 | 2.149 | -1.87200 | .05970 | .07560 | .03790 | .06250 | .07330 | .02750 | .00160 | .00880 | .78890 |
| .903 | 4.235 | -1.86820 | 1.7460 | .06670 | .02830 | .18050 | .07360 | .02798 | .00080 | .00730 | 2.01330 |
| .902 | 6.349 | -1.85730 | 2.7480 | .10330 | .02480 | 2.8450 | .07220 | .02290 | .00060 | .00770 | 2.66340 |
| .899 | 8.464 | -1.85530 | 3.7000 | .12760 | .02190 | 3.8480 | .07180 | .02280 | .00190 | .01010 | 2.89370 |
| .903 | 10.602 | -1.84370 | 4.6080 | .15760 | .02160 | 4.8200 | .07030 | .02110 | .00230 | .00990 | 2.92150 |
| .900 | 14.860 | -1.84190 | 5.6150 | .20390 | .01600 | 5.8270 | .07500 | .02730 | .00200 | .00960 | 2.75350 |
| .900 | 17.034 | -1.89140 | 6.6080 | 30.990 | .00800 | 6.9340 | .07550 | .03160 | .00160 | .00910 | 2.42350 |
| .899 | 19.260 | -1.88740 | 7.5650 | 39.390 | .00730 | 7.9320 | .07480 | .02730 | .00250 | .00860 | 2.24990 |
| .899 | 21.341 | -1.88100 | 8.4810 | 42.760 | .01270 | 8.9630 | .07470 | .02770 | .00370 | .00870 | 2.06930 |
| .899 | 23.442 | -1.85750 | 9.3500 | 48.020 | .02700 | 9.7840 | .08060 | .02130 | .00730 | .00740 | 1.88450 |
| .899 | 25.490 | -1.84580 | 9.8470 | 51.640 | .10640 | 1.02130 | .08290 | .06580 | -.00550 | -.00150 | 1.72690 |
| .900 | 26.505 | -1.83300 | 9.0010 | 54.300 | .11410 | 1.04780 | .08430 | .05360 | -.00110 | -.00320 | 1.65750 |
| | GRADIENT | .00277 | .00337 | .00054 | -.00076 | .05880 | .00039 | .00178 | -.00014 | -.00017 | .68769 |

(RE7019) (02 AUG 76)

TABULATED DATA - OAI61 (ARC: 11-97-87-08R)

ARC 11-97-87-094 OAI61 ORBITER

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = 2.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.000' SQ.FT. XMRP = 1074.6800 IN. X0
LREF = 474.8000' IN. YMRP = .0000 IN. Y0
BREF = 936.6800' IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 169/ 0 RM/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|--------|---------|--------|---------|
| 1.200 | .080 | -1.88630 | -.02398 | .03768 | -.02370 | .14640 | .02400 | -.00190 | .00880 | -.16310 |
| 1.199 | 4.248 | -1.87280 | .21710 | -.01180 | .22650 | .14540 | .03160 | -.00070 | .00890 | 1.34100 |
| 1.197 | 8.536 | -1.84220 | 4.4510 | -.04380 | .47110 | .14030 | .02670 | -.00090 | .00870 | 2.13250 |
| 1.195 | 10.700 | -1.83130 | 5.4840 | -.05010 | .56380 | .13680 | .02720 | -.00080 | .01040 | 2.26580 |
| 1.194 | 12.890 | -1.83760 | 6.5970 | -.06000 | .70630 | .13410 | .03690 | -.00090 | .00900 | 2.28610 |
| 1.193 | 15.004 | -1.87320 | 7.6190 | -.06980 | .82490 | .13480 | .04050 | -.00150 | .00790 | 2.21600 |
| 1.192 | 17.219 | -1.91640 | 8.5600 | -.07630 | .93820 | .13550 | .03640 | -.00030 | .00840 | 2.10230 |
| 1.191 | 21.560 | -1.87850 | 1.00330 | -.07220 | 1.13030 | .13060 | .01760 | .00560 | .01150 | 1.86950 |
| 1.190 | GRADIENT | .00338 | .05782 | -.01185 | .05050 | -.00024 | .00182 | .00029 | .00002 | .35084 |

RUN NO. 172/ 0 RM/L = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.401 | .049 | -1.88850 | -.01000 | .01740 | -.00990 | .14650 | .04090 | -.00050 | .00650 | -.06840 |
| 1.401 | 4.264 | -1.88060 | .19850 | -.02040 | .20980 | .14230 | .03240 | -.00050 | .00740 | 1.26100 |
| 1.397 | 8.569 | -1.87690 | 4.0310 | -.04390 | .43680 | .13610 | .02870 | -.00030 | .00700 | 2.03160 |
| 1.396 | 10.750 | -1.85890 | 5.0520 | -.06350 | .53870 | .13110 | .03320 | .00020 | .00660 | 2.17430 |
| 1.397 | 12.878 | -1.84320 | 6.0240 | -.07510 | .64840 | .12810 | .02960 | -.00040 | .00580 | 2.19590 |
| 1.398 | 14.971 | -1.84360 | 6.9840 | -.08200 | .74930 | .12960 | .04080 | .00200 | .00600 | 2.15560 |
| 1.398 | 17.107 | -1.82320 | 7.8010 | -.08890 | .85340 | .12770 | .02690 | .00140 | .00760 | 2.08620 |
| 1.396 | GRADIENT | 21.408 | .98860 | -.09350 | 1.05590 | .12480 | .02610 | .00480 | .00740 | 1.88180 |
| | | | .00211 | .00687 | .05213 | -.00100 | -.00202 | .00000 | .00021 | .31543 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

(RET020) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = 2.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 956.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 1587 0 RV/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|---------|---------|---------|---------|--------|---------|----------|
| .597 | .094 | .16180 | -.06550 | .05360 | .03560 | -.06340 | .05370 | -.00980 | .00170 | -.00880 | -1.22230 |
| .597 | 2.118 | .20970 | .02550 | .05300 | .03580 | .02740 | .05210 | -.01290 | .00190 | .00900 | .48040 |
| .597 | 4.175 | .20940 | .12350 | .05540 | .03490 | .18720 | .04620 | -.01290 | .00200 | .00940 | 2.23090 |
| .596 | 6.242 | .21410 | .22040 | .06210 | .03320 | .22590 | .03780 | -.01150 | .00230 | .00960 | 3.56030 |
| .597 | 8.336 | .21500 | .32920 | .07260 | .02950 | .33620 | .02410 | -.01220 | .00210 | .01070 | 4.53580 |
| .597 | 10.433 | .21900 | .43920 | .09040 | .02780 | .44830 | .00940 | -.01110 | .00220 | .01070 | 4.68110 |
| .596 | 12.526 | .21770 | .54520 | .11650 | .02860 | .55740 | .00460 | -.01160 | .00250 | .01070 | 4.97160 |
| .596 | 14.613 | .21770 | .64250 | .16180 | .02750 | .66250 | .00590 | -.00940 | .00260 | .00840 | 3.97160 |
| .597 | 16.768 | .22280 | .73850 | .22000 | .02370 | .77050 | .00240 | -.00550 | .00260 | .00570 | 3.35670 |
| .597 | 18.883 | .22668 | .83600 | .28690 | .01850 | .88360 | .00310 | -.00550 | .00520 | .00520 | 2.89210 |
| .597 | 21.001 | .21590 | .93320 | .36330 | .01080 | 1.00150 | .00470 | -.00360 | .00130 | .00170 | 2.56650 |
| .597 | 23.094 | .21080 | 1.04340 | .43400 | .01650 | 1.10240 | .00140 | -.00390 | .00130 | .00170 | 2.33480 |
| .598 | 25.171 | .20520 | 1.09360 | .51570 | .03640 | 1.16420 | .00000 | .00510 | .00090 | .00200 | 2.12740 |
| .597 | 26.187 | .20850 | 1.04670 | .51570 | .05590 | 1.16690 | .00890 | .00810 | .00090 | .00110 | 2.02950 |
| | GRADIENT | .01631 | .04631 | .08044 | -.00017 | .04719 | -.00184 | -.00076 | .00007 | .00015 | .84611 |

RUN NO. 1637 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .900 | .066 | .17790 | -.06630 | .07440 | .05020 | -.06620 | .07440 | -.01930 | .00500 | -.00820 | -.69200 |
| .900 | 2.145 | .21950 | .06330 | .07690 | .04030 | .05610 | .07450 | -.01950 | .00460 | .00800 | .69640 |
| .900 | 4.245 | .22010 | .16670 | .08530 | .03220 | .17210 | .07270 | -.01320 | .00360 | .00590 | 1.94940 |
| .900 | 6.352 | .21270 | .27690 | .10230 | .02640 | .28810 | .07170 | -.00930 | .00330 | .00590 | 2.64410 |
| .900 | 8.471 | .22330 | .36880 | .12690 | .02360 | .38150 | .07150 | -.01290 | .00350 | .00770 | 2.68920 |
| .900 | 10.606 | .22270 | .46480 | .15910 | .02130 | .46620 | .07080 | -.01180 | .00310 | .00750 | 2.92170 |
| .899 | 12.787 | .21760 | .54790 | .19830 | .02180 | .57810 | .07270 | -.00760 | .00210 | .00590 | 2.76350 |
| .899 | 14.861 | .22610 | .64260 | .24320 | .01450 | .68400 | .07220 | -.00190 | .00070 | .00530 | 2.42660 |
| .899 | 17.007 | .22330 | .73520 | .30300 | .00850 | .79170 | .07470 | -.00120 | -.00190 | .00670 | 2.12430 |
| .899 | 19.198 | .22360 | .82990 | .36790 | .01120 | .90090 | .07640 | -.00160 | -.00190 | .00530 | 2.24530 |
| .901 | 21.293 | .20810 | .88190 | .42890 | .02640 | .97730 | .07910 | .00520 | -.00260 | .00540 | 2.05760 |
| .899 | 23.391 | .20310 | .90740 | .48170 | .06290 | .97730 | .08190 | .01570 | -.00470 | .00530 | 1.88360 |
| .900 | 25.460 | .19730 | .89370 | .52050 | .10920 | 1.02400 | .08530 | .02730 | -.00600 | .00710 | 1.71690 |
| .900 | 26.483 | .21230 | .90890 | .54510 | .11500 | 1.04940 | .08610 | .00400 | -.00280 | .00360 | 1.65280 |
| | GRADIENT | .01008 | .05563 | .00261 | -.00431 | .05702 | -.00011 | .00146 | -.00034 | -.00055 | .67977 |



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(RE7020) (02 AUG 76)

TABULATED DATA - OAI61 (ARC 11-97-87-094)

ARC 11-97-87-094 OAI61 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AIRLON = 2.500 BOFLAP = -7.170

GRADIENT INTERVAL = -5.00 / 5.00

REFERENCE DATA

SREP = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 168 / 0 R/V/L = 4.22 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CL | CLM | CN | CA | CY | CYN | CBL | LAD |
|----------|-------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.200 | .014 | .20020 | -.02740 | .19690 | .03910 | -.02730 | .19600 | -.01080 | .00010 | .00560 | -.18790 |
| 1.199 | .014 | .20160 | -.02740 | .19830 | .03910 | -.02730 | .19800 | -.01080 | .00010 | .00560 | -.18790 |
| 1.198 | .014 | .20300 | -.02740 | .20070 | .03910 | -.02730 | .20000 | -.01080 | .00010 | .00560 | -.18790 |
| 1.197 | .014 | .20440 | -.02740 | .20310 | .03910 | -.02730 | .20300 | -.01080 | .00010 | .00560 | -.18790 |
| 1.196 | .014 | .20580 | -.02740 | .20550 | .03910 | -.02730 | .20500 | -.01080 | .00010 | .00560 | -.18790 |
| 1.195 | .014 | .20720 | -.02740 | .20790 | .03910 | -.02730 | .20700 | -.01080 | .00010 | .00560 | -.18790 |
| 1.194 | .014 | .20860 | -.02740 | .21030 | .03910 | -.02730 | .21000 | -.01080 | .00010 | .00560 | -.18790 |
| 1.193 | .014 | .21000 | -.02740 | .21270 | .03910 | -.02730 | .21200 | -.01080 | .00010 | .00560 | -.18790 |
| 1.192 | .014 | .21140 | -.02740 | .21510 | .03910 | -.02730 | .21500 | -.01080 | .00010 | .00560 | -.18790 |
| 1.191 | .014 | .21280 | -.02740 | .21750 | .03910 | -.02730 | .21700 | -.01080 | .00010 | .00560 | -.18790 |
| 1.190 | .014 | .21420 | -.02740 | .22000 | .03910 | -.02730 | .22000 | -.01080 | .00010 | .00560 | -.18790 |
| 1.189 | .014 | .21560 | -.02740 | .22240 | .03910 | -.02730 | .22200 | -.01080 | .00010 | .00560 | -.18790 |
| 1.188 | .014 | .21700 | -.02740 | .22480 | .03910 | -.02730 | .22400 | -.01080 | .00010 | .00560 | -.18790 |
| 1.187 | .014 | .21840 | -.02740 | .22720 | .03910 | -.02730 | .22700 | -.01080 | .00010 | .00560 | -.18790 |
| 1.186 | .014 | .21980 | -.02740 | .22960 | .03910 | -.02730 | .22900 | -.01080 | .00010 | .00560 | -.18790 |
| 1.185 | .014 | .22120 | -.02740 | .23200 | .03910 | -.02730 | .23200 | -.01080 | .00010 | .00560 | -.18790 |
| 1.184 | .014 | .22260 | -.02740 | .23440 | .03910 | -.02730 | .23400 | -.01080 | .00010 | .00560 | -.18790 |
| 1.183 | .014 | .22400 | -.02740 | .23680 | .03910 | -.02730 | .23600 | -.01080 | .00010 | .00560 | -.18790 |
| 1.182 | .014 | .22540 | -.02740 | .23920 | .03910 | -.02730 | .23900 | -.01080 | .00010 | .00560 | -.18790 |
| 1.181 | .014 | .22680 | -.02740 | .24160 | .03910 | -.02730 | .24100 | -.01080 | .00010 | .00560 | -.18790 |
| 1.180 | .014 | .22820 | -.02740 | .24400 | .03910 | -.02730 | .24300 | -.01080 | .00010 | .00560 | -.18790 |
| 1.179 | .014 | .22960 | -.02740 | .24640 | .03910 | -.02730 | .24600 | -.01080 | .00010 | .00560 | -.18790 |
| 1.178 | .014 | .23100 | -.02740 | .24880 | .03910 | -.02730 | .24800 | -.01080 | .00010 | .00560 | -.18790 |
| 1.177 | .014 | .23240 | -.02740 | .25120 | .03910 | -.02730 | .25100 | -.01080 | .00010 | .00560 | -.18790 |
| 1.176 | .014 | .23380 | -.02740 | .25360 | .03910 | -.02730 | .25300 | -.01080 | .00010 | .00560 | -.18790 |
| 1.175 | .014 | .23520 | -.02740 | .25600 | .03910 | -.02730 | .25600 | -.01080 | .00010 | .00560 | -.18790 |
| 1.174 | .014 | .23660 | -.02740 | .25840 | .03910 | -.02730 | .25800 | -.01080 | .00010 | .00560 | -.18790 |
| 1.173 | .014 | .23800 | -.02740 | .26080 | .03910 | -.02730 | .26000 | -.01080 | .00010 | .00560 | -.18790 |
| 1.172 | .014 | .23940 | -.02740 | .26320 | .03910 | -.02730 | .26300 | -.01080 | .00010 | .00560 | -.18790 |
| 1.171 | .014 | .24080 | -.02740 | .26560 | .03910 | -.02730 | .26500 | -.01080 | .00010 | .00560 | -.18790 |
| 1.170 | .014 | .24220 | -.02740 | .26800 | .03910 | -.02730 | .26800 | -.01080 | .00010 | .00560 | -.18790 |
| GRADIENT | | .00270 | -.05746 | .00363 | -.01171 | .05014 | -.00018 | .00213 | -.00005 | -.00002 | -.38087 |

GRADIENT INTERVAL = -5.00 / 5.00

RUN NO. 173 / 0 R/V/L = 4.24 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CL | CLM | CN | CA | CY | CYN | CBL | LAD |
|----------|-------|---------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.403 | .034 | .20070 | -.01090 | .14970 | .01850 | -.01090 | .14970 | -.00200 | -.00010 | .00430 | -.07510 |
| 1.402 | .034 | .17440 | -.01090 | .15540 | .01850 | -.01090 | .14130 | -.01620 | .00090 | .00460 | 1.26530 |
| 1.401 | .034 | .19230 | -.01090 | .17390 | .01850 | -.01090 | .13890 | -.00880 | -.00090 | .00450 | 1.74470 |
| 1.399 | .034 | .17290 | -.01090 | .19840 | .01850 | -.01090 | .13570 | -.00270 | -.00060 | .00360 | 2.04100 |
| 1.398 | .034 | .17290 | -.01090 | .23120 | .01850 | -.01090 | .13310 | -.00280 | -.00120 | .00390 | 2.17620 |
| 1.397 | .034 | .17290 | -.01090 | .27420 | .01850 | -.01090 | .13200 | -.00890 | -.00090 | .00440 | 2.20540 |
| 1.396 | .034 | .16050 | -.01090 | .32270 | .01850 | -.01090 | .12990 | -.00130 | -.00110 | .00440 | 2.18240 |
| 1.395 | .034 | .17900 | -.01090 | .37826 | .01850 | -.01090 | .12770 | -.00180 | -.00110 | .00410 | 2.08190 |
| 1.394 | .034 | .20640 | -.01090 | .40330 | .01850 | -.01090 | .12700 | -.00570 | -.00230 | .00490 | 1.86990 |
| 1.393 | .034 | .21760 | -.01090 | .44420 | .01850 | -.01090 | .12400 | -.01040 | -.00080 | .00550 | 1.65800 |
| 1.392 | .034 | .20621 | -.01090 | .49334 | .01850 | -.01090 | .11560 | -.00430 | -.00024 | .00807 | -.31675 |
| GRADIENT | | -.00621 | -.04934 | .00653 | -.00898 | .05196 | -.00104 | .00430 | | | |

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(R7021) (02 AUG 76)

TABLATED DATA - 0A16D (ARC 11-97-87-094)

ARC 11-97-87-094 0A16I ORBITER

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = 2.500 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6600 IN. X0
REF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6600 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 1577 0. RV/L = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CX | CYN | CEL | L/D |
|------|----------|---------|--------|--------|---------|--------|---------|--------|--------|----------|
| .596 | .091 | 2.25050 | .03440 | .03440 | .06900 | .03360 | -.04620 | .00410 | .00720 | -1.27110 |
| .596 | 2.124 | 2.28130 | .03370 | .03370 | .02830 | .05190 | -.04630 | .00450 | .00680 | .49810 |
| .596 | 4.184 | 2.29490 | .03330 | .03330 | .12710 | .04680 | -.04460 | .00450 | .00680 | 2.20590 |
| .596 | 6.266 | 2.30090 | .03170 | .03170 | .22840 | .03740 | -.04570 | .00430 | .00660 | 3.58760 |
| .596 | 8.356 | 2.31260 | .02780 | .02780 | .33380 | .02450 | -.04630 | .00450 | .00640 | 4.49030 |
| .596 | 10.465 | 2.32710 | .02360 | .02360 | .44880 | .00930 | -.04730 | .00510 | .00510 | 4.85420 |
| .597 | 12.621 | 2.31880 | .02050 | .02050 | .56280 | .00570 | -.04630 | .00500 | .00500 | 4.88600 |
| .597 | 14.760 | 2.29870 | .01740 | .01740 | .67180 | .00340 | -.04620 | .00300 | .00300 | 3.94970 |
| .597 | 16.900 | 2.29780 | .01370 | .01370 | .77850 | .00210 | -.04130 | .00190 | .00190 | 3.33820 |
| .597 | 19.010 | 2.27910 | .00950 | .00950 | .89220 | .00100 | -.04900 | .00120 | .00120 | 2.89420 |
| .596 | 21.099 | 2.27910 | .00580 | .00580 | .96540 | .00050 | -.03490 | .00050 | .00050 | 2.57680 |
| .596 | 23.181 | 2.28970 | .00220 | .00220 | 1.01000 | .00000 | -.02750 | .00000 | .00000 | 2.34124 |
| .596 | 25.229 | 2.31070 | .00000 | .00000 | 1.12440 | .00000 | -.02750 | .00000 | .00000 | 2.13474 |
| .597 | 26.228 | 2.31370 | .00000 | .00000 | 1.17490 | .00000 | -.01470 | .00170 | .00170 | 2.02570 |
| .597 | GRADIENT | .01081 | .00658 | .00027 | .04755 | .00166 | .00088 | .00010 | .00010 | .84795 |

RUN NO. 1617 0. RV/L = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CX | CYN | CEL | L/D |
|------|----------|---------|--------|--------|---------|--------|---------|--------|--------|---------|
| .900 | .098 | 2.28440 | .07050 | .04630 | .07040 | .07480 | .06220 | .00600 | .00770 | -.94300 |
| .901 | 2.147 | 2.30800 | .04760 | .03950 | .05040 | .07310 | -.05740 | .00770 | .00680 | .63460 |
| .900 | 4.257 | 2.31600 | .16770 | .02910 | .17350 | .07270 | -.04970 | .00660 | .00440 | 1.96350 |
| .899 | 6.371 | 2.32550 | .26930 | .02580 | .27880 | .07080 | -.04800 | .00510 | .00440 | 2.55850 |
| .900 | 8.500 | 2.32678 | .37170 | .02130 | .38640 | .07080 | -.04590 | .00480 | .00460 | 2.92800 |
| .900 | 10.633 | 2.32890 | .46180 | .02110 | .48340 | .07230 | -.03720 | .00320 | .00300 | 2.88170 |
| .899 | 12.793 | 2.31530 | .54910 | .02100 | .48340 | .07230 | -.03830 | .00180 | .00660 | 2.76100 |
| .901 | 14.951 | 2.34110 | .65370 | .01050 | .57950 | .07570 | -.03870 | .00170 | .00390 | 2.58450 |
| .899 | 17.132 | 2.34810 | .73980 | .00950 | .69680 | .07500 | -.03250 | .00350 | .00350 | 2.44230 |
| .900 | 19.275 | 2.33560 | .82220 | .01330 | .79620 | .07500 | -.02840 | .00220 | .00220 | 2.24220 |
| .901 | 21.394 | 2.31830 | .88740 | .02740 | .89720 | .07910 | -.01570 | .00140 | .00140 | 2.03170 |
| .900 | 23.443 | 2.31920 | .88530 | .02740 | .98480 | .07910 | -.01190 | .00170 | .00170 | 1.85470 |
| .900 | 25.503 | 2.33210 | .88640 | .06770 | 1.02280 | .08350 | -.01390 | .00090 | .00090 | 1.71300 |
| .900 | 26.516 | 2.35690 | .88940 | .11470 | 1.04810 | .08640 | -.02430 | .00000 | .00260 | 1.65030 |
| .900 | GRADIENT | .00752 | .05673 | .00253 | .09809 | .00040 | .00307 | .00033 | .00037 | .68607 |

TABULATED DATA - 0A161 (ARC 11-97-87-09%)

ARC 11-97-87-09% 0A161 ORBITER

(RETOR) (02 AUG 75)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2598.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 AIRLON = 2.500 EDF LAP = -7.170

RUN NO. 167/ 0 RWL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CX | CYN | CEL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.193 | .044 | 2.28870 | -.02980 | .03920 | -.02970 | .14608 | -.03670 | -.00250 | -.00261 | -2.0410 |
| 1.200 | 4.270 | 2.29020 | .21240 | -.01010 | .23380 | .14470 | -.01930 | -.00450 | -.00210 | 1.31940 |
| 1.196 | 8.574 | 2.31460 | .44430 | -.04400 | .47020 | .14040 | -.02560 | -.00850 | -.00170 | 2.12530 |
| 1.197 | 10.736 | 2.32230 | .54620 | -.04960 | .50180 | .13630 | -.03390 | -.00670 | -.00260 | 2.25410 |
| 1.195 | 12.917 | 2.31060 | .65650 | -.05860 | .70440 | .13430 | -.03790 | -.00300 | -.00320 | 2.27850 |
| 1.199 | 15.090 | 2.34800 | .75780 | -.06740 | .82140 | .13550 | -.03530 | -.00970 | -.00320 | 2.19770 |
| 1.197 | 17.307 | 2.37340 | .85530 | -.07640 | .93030 | .13650 | -.03350 | -.00310 | -.00240 | 2.08690 |
| 1.200 | 21.592 | 2.32530 | 1.00460 | -.07390 | 1.13170 | .12970 | -.01940 | -.00630 | -.00100 | 1.87260 |
| | GRADIENT | .00035 | .05731 | -.01167 | .05989 | -.00031 | .00412 | -.00024 | -.00017 | .36051 |

RUN NO. 174/ 0 RWL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CX | CYN | CEL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| 1.402 | .065 | 2.32070 | -.01100 | .01810 | -.01080 | .14610 | -.03330 | -.00110 | -.00210 | -1.07510 |
| 1.401 | 4.277 | 2.31840 | .19760 | -.01930 | .20880 | .14200 | -.03020 | -.00090 | -.00140 | 1.23480 |
| 1.398 | 8.574 | 2.25500 | .40510 | -.05050 | .43010 | .13550 | -.02340 | -.00120 | -.00310 | 2.04480 |
| 1.397 | 10.709 | 2.24200 | .50260 | -.06360 | .53690 | .13470 | -.02650 | -.00170 | -.00190 | 2.16530 |
| 1.400 | 12.814 | 2.25640 | .60040 | -.07620 | .64620 | .13360 | -.03100 | -.00210 | -.00280 | 2.19430 |
| 1.399 | 14.957 | 2.29730 | .69280 | -.08420 | .75190 | .13060 | -.02540 | -.00260 | -.00280 | 2.16350 |
| 1.400 | 17.138 | 2.33230 | .78170 | -.09100 | .85730 | .12740 | -.02000 | -.00460 | -.00130 | 2.06680 |
| 1.397 | 21.449 | 2.31790 | .93850 | -.09480 | 1.05610 | .12160 | -.01440 | -.00790 | -.00220 | 1.87950 |
| | GRADIENT | -.00055 | .04952 | -.00880 | .05213 | -.00097 | .00074 | -.00047 | -.00017 | .31573 |

(RE7022) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = 5.000 ELEVON = .000
ATLIRON = 2.500 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 156/ 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEB | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|--------|--------|----------|
| .597 | .110 | 5.35980 | .06270 | .05100 | .02880 | .02260 | .05110 | -.10280 | .00870 | .00500 | -1.22890 |
| .596 | 2.143 | 5.37790 | .07070 | .05060 | .02860 | .03190 | .04940 | -.10250 | .00880 | .00468 | .59400 |
| .595 | 4.210 | 5.38222 | .12650 | .05330 | .02763 | .13010 | .04380 | -.09940 | .00910 | .00380 | 2.37580 |
| .594 | 6.298 | 5.38731 | .22790 | .06110 | .02593 | .23330 | .03570 | -.09680 | .00850 | .00320 | 3.72980 |
| .593 | 8.387 | 5.39440 | .32900 | .07270 | .02407 | .33600 | .02400 | -.09370 | .00820 | .00140 | 4.52420 |
| .592 | 10.511 | 5.39890 | .44090 | .08960 | .02213 | .44990 | .01770 | -.09570 | .00820 | .00100 | 4.92070 |
| .591 | 12.639 | 5.38840 | .55710 | .11710 | .02073 | .56920 | .00768 | -.09530 | .00800 | .00070 | 4.75670 |
| .590 | 14.795 | 5.38100 | .65860 | .16588 | .01673 | .67910 | .00740 | -.09370 | .00780 | .00030 | 3.41650 |
| .589 | 16.860 | 5.37650 | .75220 | .22020 | .01370 | .78370 | .00520 | -.09610 | .00650 | .00020 | 2.96360 |
| .588 | 18.977 | 5.38290 | .85150 | .28730 | .00978 | .89860 | .00520 | -.09860 | .01000 | .00230 | 2.63450 |
| .587 | 21.076 | 5.39830 | .95430 | .36220 | .00490 | 1.02080 | .00520 | -.10160 | .01030 | .00120 | 2.39070 |
| .586 | 23.166 | 5.39610 | 1.06110 | .44360 | .00170 | 1.15010 | .00940 | -.10610 | .00940 | .00030 | 2.17770 |
| .585 | 25.221 | 5.41450 | 1.1470 | .51190 | .01270 | 1.22660 | .01190 | -.06430 | .00240 | .00020 | 2.04210 |
| .584 | 26.176 | 5.39380 | 1.03710 | .58790 | .05350 | 1.15480 | .00178 | -.00083 | .00010 | .00054 | .67906 |
| .583 | GRADIENT | .00575 | .04614 | .00056 | -.00029 | .04700 | -.00178 | .00083 | .00010 | .00054 | .67906 |

RUN NO. 154/ 0 RVAL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEB | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|--------|--------|----------|
| .892 | .089 | 5.30660 | -.07530 | .07340 | .04510 | -.07520 | .07340 | -.11500 | .01398 | .00720 | -1.02760 |
| .900 | 2.160 | 5.40290 | .04350 | .07470 | .03630 | .04630 | .07300 | -.11360 | .01380 | .00508 | .58228 |
| .900 | 4.271 | 5.41240 | .16370 | .08430 | .02530 | .16950 | .07190 | -.11130 | .01240 | .00300 | 1.94100 |
| .902 | 6.399 | 5.41300 | .27350 | .10260 | .01990 | .28320 | .07150 | -.10700 | .01090 | .00160 | 2.66438 |
| .901 | 8.518 | 5.41510 | .36990 | .12700 | .01920 | .38460 | .07080 | -.09940 | .00890 | .00010 | 2.91210 |
| .899 | 10.659 | 5.40590 | .45530 | .15840 | .01970 | .47620 | .06850 | -.09470 | .00630 | .00020 | 2.92930 |
| .901 | 12.795 | 5.41050 | .55090 | .19860 | .01500 | .58040 | .07180 | -.09200 | .00320 | .00160 | 2.76990 |
| .899 | 14.946 | 5.43020 | .65570 | .25290 | .00680 | .69850 | .07440 | -.09230 | .00020 | .00020 | 2.60220 |
| .899 | 17.076 | 5.45440 | .75590 | .29860 | .00940 | .79120 | .06930 | -.08850 | .00040 | .00040 | 2.46480 |
| .900 | 19.234 | 5.46150 | .82310 | .36210 | .01210 | .89640 | .07070 | -.07800 | .00110 | .00110 | 2.27340 |
| .899 | 21.357 | 5.46930 | .88260 | .42088 | .03090 | .97520 | .07050 | -.07450 | .00570 | .00570 | 2.09760 |
| .900 | 23.433 | 5.45320 | .90550 | .47920 | .06988 | 1.02140 | .07860 | -.05070 | .02380 | .01060 | 1.88970 |
| .901 | 25.479 | 5.45430 | .92300 | .52300 | .09660 | 1.04660 | .08060 | -.06000 | .01550 | .01030 | 1.74920 |
| .901 | 26.493 | 5.46760 | .92300 | .55390 | .10920 | 1.07380 | .08370 | -.07150 | .00800 | .00800 | 1.66740 |
| .901 | GRADIENT | .00614 | .05687 | .00260 | -.00471 | .05823 | -.00035 | .00088 | .00036 | .00100 | .70616 |

(RE7022) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 ATLRON = 2.500 BDFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO.
 LRREF = 474.8000 IN. YMRP = .0000 IN. YO.
 BRREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO.
 SCALE = .0300

RUN: NO. 165/ 0 RVL = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.200 | .074 | 5.40040 | -.03080 | .03740 | -.03060 | .14580 | -.08820 | .08990 | -.00120 | -.27120 |
| 1.198 | 4.297 | 5.42110 | .21270 | -.01090 | .22410 | .14330 | -.08440 | .02660 | -.00290 | 1.33820 |
| 1.199 | 8.598 | 5.41080 | .44160 | -.04200 | .46780 | .14000 | -.07050 | .00080 | -.00350 | 2.11910 |
| 1.198 | 10.767 | 5.39560 | .54370 | -.04880 | .57950 | .13680 | -.07620 | .00120 | -.00340 | 2.24090 |
| 1.199 | 12.921 | 5.41080 | .65420 | -.05930 | .70200 | .13450 | -.08130 | -.00040 | -.00100 | 2.27130 |
| 1.197 | 15.083 | 5.42650 | .75880 | -.07050 | .82190 | .13330 | -.08290 | -.00010 | -.00070 | 2.21530 |
| 1.197 | 17.241 | 5.45790 | .84830 | -.07490 | .92940 | .13290 | -.07820 | -.00550 | -.00070 | 2.10830 |
| 1.194 | 21.551 | 5.46620 | 1.00830 | -.07820 | 1.13400 | .12630 | -.05950 | -.01690 | -.00210 | 1.88820 |
| GRADIENT | | .00490 | .05766 | -.01144 | .06031 | -.00069 | .00256 | -.00078 | -.00040 | .36547 |

RUN: NO. 175/ 0 RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.399 | .085 | 5.43150 | -.01150 | .01520 | -.01120 | .14660 | -.08100 | .00470 | -.00050 | -.07800 |
| 1.399 | 4.292 | 5.42220 | .19710 | -.02150 | .20830 | .14220 | -.07470 | .00110 | -.00260 | 1.25220 |
| 1.388 | 8.555 | 5.38160 | .40500 | -.05260 | .43020 | .13740 | -.07100 | -.00260 | -.00390 | 2.02660 |
| 1.398 | 10.687 | 5.34860 | .50160 | -.06420 | .53590 | .13510 | -.05910 | -.00200 | -.00360 | 2.16120 |
| 1.397 | 12.808 | 5.40500 | .59640 | -.07460 | .64180 | .13290 | -.08240 | -.00480 | -.00290 | 2.19360 |
| 1.397 | 14.957 | 5.41740 | .68480 | -.08160 | .74370 | .13060 | -.07200 | -.00490 | -.00150 | 2.15260 |
| 1.396 | 17.123 | 5.42500 | .77420 | -.08780 | .84930 | .12700 | -.06780 | -.00950 | -.00140 | 2.08420 |
| 1.397 | 21.438 | 5.44700 | .93810 | -.09480 | 1.05480 | .11950 | -.05670 | -.01830 | -.00160 | 1.88950 |
| GRADIENT | | .00221 | .04958 | -.00872 | .05217 | -.00109 | .00150 | -.00086 | -.00050 | .31619 |

(RE7023) (02 AUG. 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6806 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -5.000 ELEVON = .000
AILYON = 5.000 BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|----------|--------|----------|----------|---------|---------|---------|--------|----------|
| .597 | .144 | -4.92350 | -0.05070 | .05340 | .03170 | -0.05080 | .05350 | .06170 | -0.0240 | .02276 | -0.95060 |
| .598 | 4.207 | -4.92540 | .13650 | .05690 | .03110 | .14040 | .04670 | .05850 | -0.0110 | .02610 | 2.39930 |
| .599 | 8.370 | -4.91020 | .34000 | .07530 | .02750 | .34740 | .02500 | .05500 | -0.0160 | .03090 | 4.51300 |
| .600 | 10.478 | -4.89920 | .44680 | .09300 | .02670 | .45620 | .02400 | .05240 | -0.0140 | .03440 | 4.80340 |
| .601 | 12.589 | -4.87110 | .55920 | .12140 | .02410 | .57290 | -0.0360 | .03590 | -0.0090 | .03590 | 4.61330 |
| .602 | 14.689 | -4.86390 | .65810 | .16810 | .02240 | .67920 | -0.0420 | .06040 | -0.0030 | .02990 | 3.91420 |
| .603 | 16.786 | -4.86830 | .75190 | .22720 | .01820 | .78550 | .00440 | .06480 | -0.0040 | .02680 | 3.30880 |
| .604 | 21.028 | -4.89880 | .94710 | .36880 | .00850 | 1.01640 | .00440 | .02410 | -0.0050 | .02410 | 2.56810 |
| | GRADIENT | -0.00047 | .04607 | .00986 | -0.00015 | .04700 | -0.0167 | -0.0128 | .00032 | .00084 | .62435 |

RUN NO. 2001 0 RVAL = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|----------|--------|----------|----------|----------|--------|---------|--------|----------|
| .900 | .112 | -4.94600 | -0.04860 | .07410 | .04080 | -0.04850 | .07420 | .06390 | -0.0090 | .01930 | -0.65600 |
| .901 | 4.265 | -4.95410 | .18450 | .08760 | .02240 | .19050 | .07360 | .06840 | -0.0160 | .01950 | 2.10640 |
| .902 | 6.377 | -4.95360 | .29450 | .10480 | .01540 | .30130 | .07180 | .07140 | .00010 | .01920 | 2.78090 |
| .903 | 8.491 | -4.93620 | .38600 | .13110 | .01420 | .40110 | .07270 | .06560 | .00060 | .02170 | 2.94370 |
| .904 | 10.619 | -4.93140 | .48370 | .16490 | .01080 | .50580 | .07290 | .06540 | .00140 | .02340 | 2.93420 |
| .905 | 12.739 | -4.91670 | .56960 | .20520 | .00860 | .60680 | .07450 | .06990 | .00420 | .02280 | 2.77600 |
| .906 | 14.875 | -4.92380 | .66020 | .25900 | .00370 | .70350 | .07700 | .06900 | .00740 | .02290 | 2.98880 |
| .907 | 17.005 | -4.92660 | .74480 | .30820 | .00520 | .80240 | .07690 | .07000 | .01490 | .02190 | 2.41670 |
| .908 | 21.308 | -4.96370 | .89160 | .43110 | .02830 | .98730 | .07760 | .07480 | .01930 | .01930 | 2.06680 |
| .909 | GRADIENT | -0.0195 | .05613 | .00325 | -0.00443 | .05755 | -0.00014 | .00108 | .00017 | .00005 | .66517 |

RUN NO. 1911 0 RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|----------|--------|----------|----------|----------|--------|---------|--------|----------|
| .980 | .121 | -4.95340 | -0.05440 | .11990 | .05670 | -0.05420 | .12010 | .06110 | -0.0030 | .02490 | -0.45380 |
| .981 | 4.290 | -4.95620 | .20320 | .13380 | .01700 | .21270 | .11830 | .05980 | .00100 | .02440 | 1.51840 |
| .982 | 6.355 | -4.92630 | .45020 | .18390 | .01690 | .47250 | .11190 | .05720 | .00010 | .02340 | 2.44740 |
| .983 | 8.401 | -4.91890 | .56540 | .22200 | .02910 | .59680 | .11320 | .05700 | .00000 | .02500 | 2.54660 |
| .984 | 10.701 | -4.90930 | .67140 | .26860 | .03600 | .71430 | .11260 | .05860 | .00010 | .02580 | 2.49860 |
| .985 | 12.845 | -4.90830 | .76950 | .32180 | .03890 | .82630 | .11170 | .06190 | .00470 | .02470 | 2.39050 |
| .986 | 15.002 | -4.92750 | .85780 | .38250 | .03860 | .93250 | .11280 | .06270 | .00620 | .02530 | 2.24100 |
| .987 | 17.190 | -4.93310 | .92200 | .45320 | .03400 | 1.14260 | .11270 | .05350 | .01358 | .02690 | 1.95350 |
| .988 | 21.473 | -4.94270 | 1.02200 | .53320 | .03400 | 1.14260 | .11270 | .05350 | .00031 | .00012 | .47307 |
| .989 | GRADIENT | -0.00067 | .06179 | .00333 | -0.00952 | .06402 | -0.00043 | .00012 | .00031 | .00012 | .47307 |

TABLATED DATA - OATS (ARC 11-87-87-CBA)
 ARC 11-97-87-09+ OAJ61 ORBITER

PARAMETRIC DATA

BETA = -9.000 ELEVON = .000
 ALLRON = 5.000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BRPF = 936.6800 IN. ZMRP = 375.8000 IN. Z0
 SCALE = .0300

RUN NO. 190/ 0 RN/L = 4.27 GRADIENT INTERVAL = -5.80/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|--------|--------|---------|---------|---------|
| 1.103 | .111 | -4.94150 | -.03330 | .04820 | -.02500 | .14468 | .06170 | -.00358 | .02490 | -.24450 |
| 1.102 | .4300 | -4.95070 | -.22860 | -.00360 | -.24820 | .14620 | .06460 | -.00230 | .02380 | 1.39570 |
| 1.102 | 8.569 | -4.93290 | .45910 | -.03280 | .48680 | .14310 | .06410 | -.00850 | .02500 | 2.14590 |
| 1.099 | 10.723 | -4.91740 | .56330 | -.02920 | .60180 | .13960 | .05950 | -.00800 | .02530 | 2.26990 |
| 1.098 | 12.874 | -4.90850 | .29280 | -.04490 | .71740 | .13640 | .06100 | -.00120 | .02520 | 2.28490 |
| 1.102 | 15.052 | -4.93140 | .78480 | -.05760 | .84870 | .13370 | .07400 | -.00110 | .02070 | 2.24540 |
| 1.100 | 17.217 | -4.94200 | .88350 | -.06440 | .96570 | .13160 | .07400 | .00230 | .02050 | 2.13050 |
| 1.100 | 21.539 | -4.95390 | 1.04098 | -.06380 | 1.17220 | .13470 | .06250 | .01110 | .02110 | 1.97340 |
| 1.100 | GRADIENT | -.00220 | .06300 | -.01189 | .05570 | .00036 | .00069 | .00029 | -.00026 | .39155 |

RUN NO. 181/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.198 | .112 | -4.98250 | -.02030 | .03540 | -.02080 | .14920 | .07850 | -.00410 | .02030 | -.14010 |
| 1.199 | 4.283 | -4.96410 | .22250 | -.01480 | -.23410 | .14630 | .07030 | -.00350 | .02050 | 1.36240 |
| 1.201 | 8.561 | -4.92890 | .45210 | -.04600 | .47860 | .14210 | .06460 | -.00140 | .02170 | 2.13490 |
| 1.196 | 10.716 | -4.94000 | .55780 | -.05360 | .59430 | .14060 | .07300 | -.00080 | .02310 | 2.24350 |
| 1.195 | 12.876 | -4.92680 | .65730 | -.06380 | .71640 | .13790 | .06920 | -.00100 | .02140 | 2.26980 |
| 1.195 | 15.052 | -4.94550 | .77520 | -.07540 | .83950 | .13660 | .07390 | .00080 | .01950 | 2.21570 |
| 1.195 | 17.214 | -4.94850 | .86560 | -.08070 | .94960 | .13650 | .07310 | .00360 | .01860 | 2.10630 |
| 1.199 | 21.537 | -4.96520 | 1.01430 | -.07850 | 1.14150 | .12920 | .05930 | .01410 | .02030 | 1.88110 |
| 1.199 | GRADIENT | .00513 | .05836 | -.01204 | .05107 | -.00070 | -.00192 | .00014 | .00005 | .36025 |

RUN NO. 180/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|--------|---------|--------|---------|
| 1.400 | .071 | -4.95840 | -.00450 | .01440 | -.00430 | .15020 | .07208 | -.00500 | .01490 | -.02980 |
| 1.400 | 4.232 | -4.98990 | .20200 | -.02280 | .21320 | .14410 | .07750 | -.00260 | .01630 | 1.26720 |
| 1.396 | 8.496 | -4.93200 | .46550 | -.06140 | .43060 | .13820 | .05340 | -.00130 | .01610 | 2.02430 |
| 1.397 | 10.642 | -4.93280 | .50340 | -.06370 | .53770 | .13580 | .06990 | .00040 | .01600 | 2.16310 |
| 1.397 | 12.792 | -4.95330 | .59820 | -.07340 | .64378 | .13320 | .07870 | .00090 | .01550 | 2.19580 |
| 1.397 | 14.359 | -4.94020 | .69260 | -.08270 | .75180 | .13070 | .06420 | .00170 | .01500 | 2.16210 |
| 1.399 | 17.112 | -4.97920 | .77978 | -.08930 | .85510 | .12740 | .08080 | .00710 | .01600 | 2.08810 |
| 1.400 | 21.459 | -4.98100 | .94050 | -.09500 | 1.05800 | .12080 | .06220 | .01490 | .01650 | 1.88610 |
| 1.400 | GRADIENT | -.00764 | .04963 | -.00894 | .05228 | -.00147 | .00132 | .00053 | .00043 | .31173 |

(RE702) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 4.74 8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALLRON = 5.000 BOFLAP = -7.170

| MACH | ALPHA | BETA | CL | CD | CLM | CN | C* | CX | CYN | CBL | L/D |
|------|--------|----------|--------|--------|---------|---------|---------|---------|---------|--------|----------|
| .595 | .089 | -1.83260 | .05830 | .05590 | .03400 | -.05820 | .05600 | .00976 | .00170 | .02930 | -1.04220 |
| .596 | .180 | -1.84670 | .12920 | .05940 | .03320 | .13310 | .04680 | .00630 | .00240 | .02240 | 2.21420 |
| .595 | 8.344 | -1.83500 | .33420 | .07600 | .02860 | .34160 | .02670 | .00390 | .00230 | .02510 | 4.39690 |
| .595 | 10.455 | -1.83920 | .44120 | .09360 | .02800 | .45090 | .01200 | .00500 | .00220 | .02710 | 4.71470 |
| .595 | 12.574 | -1.82660 | .54950 | .12050 | .02660 | .56260 | -.00200 | .00590 | .00260 | .02340 | 4.56360 |
| .597 | 14.668 | -1.79550 | .64780 | .16730 | .02620 | .65900 | -.00260 | .01000 | .00020 | .02340 | 3.87210 |
| .593 | 15.805 | -1.85850 | .74740 | .22870 | .02070 | .78168 | .00280 | .01670 | -.00040 | .02870 | 3.28850 |
| .594 | 21.065 | -1.85330 | .95430 | .37710 | .00690 | 1.02800 | .00880 | .01940 | .00000 | .01860 | 2.53090 |
| | | -.00345 | .04584 | .00061 | -.00020 | .04677 | -.00176 | -.00083 | .00017 | .00051 | .79613 |

RUN NO. 202/ 0 RVAL = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|------|--------|----------|--------|--------|---------|---------|---------|---------|---------|---------|----------|
| .902 | .083 | -1.87890 | .06870 | .07730 | .04690 | -.06950 | .07740 | .00820 | .00590 | .01790 | -1.78460 |
| .901 | 4.240 | -1.84950 | .17960 | .08910 | .02480 | .18570 | .07560 | .00550 | .00370 | .01710 | 2.01540 |
| .900 | 6.360 | -1.84440 | .28680 | .10710 | .01800 | .29680 | .07460 | .01150 | .00430 | .01590 | 2.67860 |
| .900 | 8.467 | -1.84860 | .37810 | .13110 | .01610 | .39330 | .07400 | .01210 | .00550 | .01720 | 2.88370 |
| .898 | 10.607 | -1.84280 | .46946 | .16460 | .01530 | .49170 | .07540 | .01670 | .00500 | .01620 | 2.85190 |
| .900 | 12.737 | -1.81990 | .56060 | .20490 | .01330 | .59190 | .07630 | .01170 | .00330 | .01730 | 2.73540 |
| .902 | 14.865 | -1.82530 | .65680 | .25770 | .00480 | .70210 | .08040 | .01780 | .00180 | .01840 | 2.55340 |
| .893 | 17.033 | -1.88560 | .74530 | .31230 | .00480 | .80410 | .88030 | .02240 | .00480 | .01750 | 2.38610 |
| .902 | 21.347 | -1.87388 | .89170 | .43810 | .02540 | .92990 | .08340 | .02520 | .00480 | .01480 | 2.03550 |
| | | .00803 | .05780 | .00284 | -.00532 | .05922 | -.00043 | -.00017 | -.00063 | -.00019 | .67347 |

RUN NO. 192/ 0 RVAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CX | CYN | CBL | L/D |
|------|--------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .980 | .058 | -1.84620 | .06530 | .12410 | .06460 | -.06520 | .12420 | .01180 | .00430 | .02040 | -5.2620 |
| .980 | 4.264 | -1.85940 | .19720 | .13640 | .02040 | .20680 | .12130 | .01140 | .00370 | .01940 | 1.44580 |
| .979 | 8.541 | -1.84270 | .44560 | .18530 | .01630 | .48830 | .11800 | .01050 | .00430 | .01880 | 2.39220 |
| .978 | 10.695 | -1.82200 | .55320 | .22150 | .02790 | .58960 | .11410 | .01090 | .00210 | .01950 | 2.51940 |
| .979 | 12.842 | -1.81610 | .66680 | .27310 | .03490 | .71080 | .11810 | .01280 | .00200 | .01970 | 2.44160 |
| .979 | 14.977 | -1.84850 | .76310 | .32820 | .03860 | .82200 | .11990 | .02250 | .00160 | .01810 | 2.32500 |
| .978 | 17.179 | -1.89700 | .85640 | .38720 | .03970 | .93250 | .11700 | .02260 | .00160 | .01880 | 2.21160 |
| .980 | 21.506 | -1.87680 | 1.01390 | .52210 | .03020 | 1.13430 | .11420 | .02800 | .00360 | .01300 | 1.54120 |
| | | -.00314 | .06252 | .00293 | -.01053 | .06478 | -.00069 | -.00010 | -.00014 | -.00024 | .46866 |

RUN NO. 192/ 0 RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - 0A161 (ARC 11-97-87-09#)

(RE702#) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILLON = 5.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0'
LREF = 474.8000 IN. YMRP = .0000 IN. Y0'
BREF = 935.6000 IN. ZMRP = 375.0000 IN. Z0'
SCALE = .0300

RUN NO. 189# 0 RM/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CM | CN | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|--------|-------|--------|--------|-------|-------|--------|--------|--------|
| 1.102 | .086 | -1.8789 | -.0442 | .1432 | .0930 | -.0440 | .1433 | .0084 | .0022 | -.0191 | -.3088 |
| 1.101 | .265 | -1.8521 | .2205 | .1627 | -.0060 | .2321 | .1458 | .0198 | .0260 | .0740 | 1.3559 |
| 1.101 | 4.265 | -1.8310 | .4588 | .2120 | -.0388 | .4793 | .1420 | .6429 | .0250 | -.0177 | 2.1368 |
| 1.100 | 8.559 | -1.8234 | .5580 | .2467 | -.0690 | .5931 | .1388 | .0181 | .0280 | -.0192 | 2.2577 |
| 1.101 | 10.721 | -1.8079 | .6978 | .2927 | -.0465 | .7181 | .1361 | .0128 | .0190 | .0190 | 2.2882 |
| 1.101 | 12.874 | -1.8481 | .8988 | .3530 | -.0609 | .8360 | .1358 | .0310 | -.0029 | .0129 | 2.2311 |
| 1.101 | 15.032 | -1.8986 | .8910 | .4198 | -.0578 | .9754 | .1355 | .0310 | -.0010 | .0100 | 2.1230 |
| 1.100 | 17.257 | -1.8788 | 1.0395 | .5640 | -.0590 | 1.1713 | .1350 | .0338 | .0060 | .0152 | 1.8685 |
| 1.102 | 21.581 | -.0042 | .0633 | .0047 | -.0129 | .0667 | .0060 | .0080 | .0010 | -.0004 | .3983 |

RUN NO. 182# 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| 1.199 | .050 | -1.8572 | -.0257 | .1499 | .0380 | -.0256 | .1498 | .0282 | .0066 | -.0153 | -.1714 |
| 1.195 | 4.258 | -1.8591 | .2283 | .1686 | -.0134 | .2320 | .1490 | .0280 | -.0080 | .0150 | 1.3285 |
| 1.137 | 8.549 | -1.8438 | .4487 | .2158 | -.0457 | .4755 | .1450 | .0285 | -.0040 | .0154 | 2.1079 |
| 1.195 | 10.719 | -1.8198 | .5961 | .2492 | -.0542 | .5927 | .1414 | .0188 | -.0010 | .0181 | 2.2314 |
| 1.195 | 12.859 | -1.8141 | .6624 | .2943 | -.0622 | .7113 | .1394 | .0270 | -.0080 | .0167 | 2.2504 |
| 1.196 | 15.026 | -1.8578 | .7645 | .3486 | -.0714 | .8298 | .1394 | .0313 | -.0080 | .0158 | 2.1868 |
| 1.194 | 17.238 | -1.9025 | .8623 | .4131 | -.0783 | .9460 | .1381 | .0288 | .0082 | .0151 | 2.0871 |
| 1.198 | 21.573 | -1.8780 | 1.0077 | .5423 | -.0737 | 1.1365 | .1380 | .0178 | .0037 | .0175 | 1.8583 |
| GRADIENT | | .00193 | .05847 | .00578 | -.0122 | .06122 | -.0002 | -.0017 | -.00033 | -.00007 | .35848 |

RUN NO. 179# 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|--------|--------|---------|--------|---------|--------|--------|--------|--------|
| 1.399 | .049 | -1.8775 | -.0083 | .1494 | .0170 | -.0081 | .1494 | .0183 | -.0017 | .0109 | -.0553 |
| 1.399 | 4.207 | -1.8142 | .1974 | .1591 | -.0205 | .2885 | .1420 | .0421 | -.0014 | .0119 | 1.2404 |
| 1.397 | 8.495 | -1.8482 | .4011 | .2802 | -.0504 | .4260 | .1388 | .0256 | -.0078 | .0118 | 2.0040 |
| 1.400 | 10.647 | -1.8300 | .5012 | .2320 | -.0620 | .5370 | .1365 | .0280 | -.0080 | .0115 | 2.1497 |
| 1.399 | 12.763 | -1.8357 | .5995 | .2742 | -.0738 | .6453 | .1347 | .0320 | .0010 | .0100 | 2.1880 |
| 1.399 | 14.933 | -1.8582 | .6879 | .3195 | -.0828 | .7478 | .1344 | .0258 | .0090 | .0129 | 2.1522 |
| 1.399 | 17.147 | -1.8920 | .7799 | .3758 | -.0944 | .8561 | .1298 | .0180 | .0060 | .0125 | 2.0752 |
| 1.403 | 21.499 | -1.8695 | .9372 | .5025 | -.0950 | 1.0618 | .1243 | .0314 | .0035 | .0125 | 1.8550 |
| GRADIENT | | -.00882 | .04945 | .00233 | -.00902 | .05207 | -.00125 | .00740 | .00075 | .00024 | .31449 |

TABULATED DATA - OAL61 (ARC 11-97-87-(9*))

(RET025) (02 AUG 76)

ARC 11-97-87-09* OAL61 ORBITER

PARAMETRIC DATA

BETA = 4.22 GRADIENT INTERVAL = -5.00/ 5.00
ALPHA = 0.000 SO.FT. XMRP = 107E 5800 IN. XO
YMRP = 0.000 IN. YO
ZMRP = 375.000 IN. ZO
SCALE = .0300

REFERENCE DATA

SPEF = 2690.0000
LREF = 474.8000 IN.
BREF = 936.6800 IN.
SCALE = .0300

| MACH | ALPHA | BETA | CL | CC | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|--------|--------|----------|
| .597 | .081 | .21610 | .05190 | .05660 | .03480 | -.06180 | .05670 | -.02720 | .00440 | .01900 | -1.09320 |
| .595 | 4.182 | .21530 | .12620 | .05870 | .03410 | .33020 | .04930 | -.02770 | .00480 | .02020 | 2.15230 |
| .594 | 6.256 | .21600 | .22840 | .05560 | .03280 | .23420 | .04030 | -.02810 | .00510 | .02080 | 3.48400 |
| .595 | 8.349 | .23020 | .33270 | .07650 | .02920 | .34030 | .02740 | -.02990 | .00500 | .02160 | 4.34670 |
| .596 | 10.443 | .22440 | .43920 | .09400 | .02810 | .44800 | .01300 | -.02610 | .00500 | .02220 | 4.66190 |
| .59E | 12.541 | .22300 | .54740 | .12080 | .02890 | .56050 | -.00100 | -.02730 | .00520 | .02220 | 4.53250 |
| .59E | 14.659 | .23020 | .64500 | .16810 | .02730 | .68650 | -.00060 | -.02120 | .00270 | .01860 | 3.83690 |
| .597 | 16.776 | .23210 | .73890 | .22470 | .02220 | .77250 | .00180 | -.01610 | .00270 | .01600 | 3.20880 |
| .597 | 21.025 | .21880 | .95410 | .37580 | .00470 | 1.02940 | .00850 | -.01870 | .00310 | .01690 | 2.53880 |
| .596 | 25.199 | .21060 | 1.07780 | .51090 | .03860 | 1.19270 | .00330 | -.00950 | .00030 | .00810 | 2.10980 |
| | GRADIENT | -.00020 | .04586 | .00051 | -.00017 | .04681 | -.00180 | -.00012 | .00020 | .00023 | .79125 |

| MACH | ALPHA | BETA | CL | CC | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .901 | 045 | .19500 | -.07010 | .07750 | .07000 | -.07000 | .07750 | -.02890 | .00850 | .01730 | -.90420 |
| .900 | 4.243 | .21830 | .17260 | .08760 | .02750 | .17860 | .07460 | -.02650 | .00660 | .01620 | 1.97030 |
| .895 | 6.350 | .21600 | .28140 | .10590 | .01900 | .29130 | .07410 | -.02370 | .00620 | .01440 | 2.65740 |
| .900 | 8.474 | .25400 | .38000 | .13190 | .01590 | .39930 | .07450 | -.02110 | .00550 | .01530 | 2.86130 |
| .900 | 10.602 | .26600 | .46970 | .16440 | .01660 | .49200 | .07920 | -.01720 | .00500 | .01460 | 2.85720 |
| .898 | 12.722 | .22450 | .59320 | .20340 | .01860 | .58450 | .07660 | -.01480 | .00340 | .01450 | 2.71950 |
| .897 | 14.864 | .23540 | .65370 | .25490 | .00810 | .69720 | .07870 | -.01250 | .00180 | .01520 | 2.56430 |
| .904 | 17.018 | .23070 | .74830 | .31470 | .00300 | .80760 | .08190 | -.00820 | -.00080 | .01470 | 2.37750 |
| .902 | 21.282 | .20750 | .87710 | .43130 | .02860 | .87380 | .08350 | -.00300 | -.00450 | .01250 | 2.03360 |
| | GRADIENT | 25.460 | .90540 | .52630 | .10300 | 1.04460 | .08560 | -.03240 | -.0110 | -.00070 | 1.72200 |
| | | .00595 | .09781 | .00241 | -.00534 | .09921 | -.00069 | .00057 | -.00046 | -.00026 | .68465 |

| MACH | ALPHA | BETA | CL | CC | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| .979 | .055 | .22530 | -.07500 | .12060 | .08890 | -.07490 | .12070 | -.02780 | .00550 | .01610 | -.62200 |
| .980 | 4.279 | .21180 | .19330 | .13690 | .02690 | .20300 | .12210 | -.01420 | .00480 | .01690 | 1.41200 |
| .980 | 6.561 | .23980 | .24230 | .18700 | .01490 | .48520 | .11920 | -.01740 | .00420 | .01730 | 2.35220 |
| .977 | 10.707 | .26530 | .35753 | .22159 | .02650 | .58880 | .11410 | -.01190 | .00510 | .01630 | 2.51580 |
| .978 | 12.850 | .21530 | .56330 | .27100 | .03470 | .70690 | .11670 | -.00840 | .00390 | .01560 | 2.44790 |
| .978 | 14.031 | .23430 | .62600 | .32650 | .03200 | .81920 | .11850 | -.00390 | -.00130 | .01580 | 2.32940 |
| .979 | 17.157 | .20750 | .89290 | .38790 | .03960 | .92930 | .11910 | -.00260 | .00220 | .01490 | 2.19870 |
| .981 | 21.454 | .20910 | 1.00540 | .54740 | .02850 | 1.12490 | .11380 | -.01550 | -.00320 | .00810 | 1.94330 |
| | GRADIENT | -.00249 | .06367 | .00386 | -.01090 | .05565 | .00039 | .00322 | -.00017 | -.00031 | .48153 |

(RE7025) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-05A)

ARC 11-97-87-05A 0A161 ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. XQ
LPEF = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = .000 ELEVON = .000
DELTA = 5.000 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 188/ 0 RV/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|--------|----------|--------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.1001 | .060 | .20720 | -.05460 | .14230 | .05780 | -.05440 | .14240 | -.02290 | .00410 | -.01570 | .38340 |
| 1.102 | 4.282 | .21770 | -.21770 | .16260 | .00220 | .22920 | .14590 | -.01330 | .00280 | -.01440 | 1.33880 |
| 1.101 | 8.568 | .23970 | .45140 | .21150 | -.03070 | .47790 | .14190 | -.01560 | .00260 | -.01480 | 2.13370 |
| 1.101 | 10.728 | .23880 | .56830 | .24720 | -.02810 | .59460 | .13900 | -.01630 | .00190 | -.01580 | 2.25850 |
| 1.101 | 12.881 | .23850 | .66670 | .29310 | -.04570 | .71530 | .13710 | -.01280 | .00100 | -.01600 | 2.27450 |
| 1.100 | 15.058 | .23480 | .77340 | .35050 | -.05800 | .83790 | .13750 | -.00520 | .00010 | -.01370 | 2.20670 |
| 1.099 | 17.237 | .22640 | .89190 | .42800 | -.06880 | .97630 | .13680 | -.00030 | -.00250 | -.01070 | 2.12360 |
| 1.101 | 21.529 | .21840 | 1.03550 | .52380 | -.05810 | 1.16650 | .13510 | -.00160 | -.00190 | -.01430 | 1.87000 |
| | GRADIENT | .00243 | .06433 | .00480 | -.01314 | .06700 | .00083 | .00227 | -.00031 | -.00031 | .40689 |

RUN NO. 183/ 0 RV/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.156 | 0.44 | .17740 | -.02770 | .14990 | .03930 | -.02760 | .14990 | -.00370 | .00370 | -.01260 | 1.18490 |
| 1.139 | 5.267 | .21430 | -.16570 | .16570 | -.01140 | .22950 | .14900 | -.00560 | .00060 | -.01180 | 1.51460 |
| 1.197 | 8.508 | .23910 | .33710 | .19650 | -.03230 | .35980 | .14770 | -.00700 | .00050 | -.01190 | 1.80710 |
| 1.194 | 10.737 | .23878 | .44690 | .21350 | -.04480 | .47370 | .14460 | -.00510 | -.00040 | -.01170 | 2.09310 |
| 1.195 | 12.840 | .23440 | .55720 | .24950 | -.05470 | .59390 | .14120 | -.00620 | .00060 | -.01410 | 2.22380 |
| 1.194 | 15.032 | .22650 | .66200 | .29400 | -.06180 | .71090 | .13890 | -.00570 | .00070 | -.01310 | 2.25170 |
| 1.194 | 17.217 | .22760 | .75920 | .34940 | -.06890 | .82390 | .14020 | -.00560 | .00050 | -.01240 | 2.17290 |
| 1.199 | 21.523 | .21510 | .85650 | .42350 | -.07780 | .94020 | .14030 | -.00260 | -.00140 | -.01160 | 2.07740 |
| 1.199 | 25.749 | .20780 | 1.00780 | .52110 | -.07590 | 1.13640 | .13450 | -.00030 | -.00170 | -.01210 | 1.85930 |
| | GRADIENT | .00874 | .05814 | .00374 | -.01201 | .06089 | .00021 | .00220 | -.00073 | -.00019 | 1.63930 |

RUN NO. 178/ 0 RV/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.400 | 0.11 | .16370 | -.01310 | .14830 | .01810 | -.01310 | .14830 | -.00790 | .00190 | -.00930 | 1.08640 |
| 1.400 | 2.105 | .21580 | -.00900 | .14930 | -.00120 | .09630 | .14580 | -.00880 | -.00040 | -.00870 | .60880 |
| 1.399 | 4.215 | .19430 | .15820 | .15820 | -.01910 | .20720 | .14330 | -.00770 | .00050 | -.00870 | 1.24010 |
| 1.396 | 6.344 | .23960 | .29950 | .17560 | -.03490 | .31780 | .14130 | -.01510 | -.00210 | -.00860 | 1.70630 |
| 1.399 | 8.500 | .23990 | .40010 | .19940 | -.04970 | .42520 | .13810 | -.00200 | .00170 | -.00850 | 2.00630 |
| 1.395 | 10.660 | .24140 | .50120 | .22750 | -.06370 | .53560 | .13580 | -.00780 | .00170 | -.00870 | 2.15400 |
| 1.399 | 12.804 | .22650 | .60120 | .25450 | -.07630 | .64410 | .13440 | -.00190 | -.00130 | -.00930 | 2.19830 |
| 1.399 | 14.966 | .22770 | .69340 | .28162 | -.08590 | .75300 | .13160 | -.00330 | .00020 | -.00920 | 2.15620 |
| 1.399 | 17.135 | .23270 | .78380 | .37750 | -.09280 | .86020 | .12980 | -.00450 | -.00200 | -.00900 | 2.07660 |
| 1.399 | 21.438 | .20130 | .93510 | .50160 | -.09540 | 1.05470 | .12470 | -.00940 | -.00120 | -.01020 | 1.85630 |
| 1.400 | 25.750 | .21950 | 1.05640 | .64340 | -.08250 | 1.22960 | .11890 | -.00210 | -.00200 | -.01030 | 1.64980 |
| | GRADIENT | .00726 | .04976 | .00236 | -.00885 | .04240 | .00119 | .00004 | -.00033 | -.00014 | .31995 |

(RE70261 (02 AUG 76)

TABULATED DATA - OAINS (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER

PARAMETRIC DATA

BETA = 2.000 ELEVOM = .000
A-BLFRON = 5.000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 207 0. RNL = 4.23 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|--------|--------|---------|---------|---------|---------|--------|---------|----------|
| .597 | .094 | 2.27240 | .06360 | .05620 | .03270 | -.06350 | .05630 | -.06060 | .00670 | -.01740 | -1.13250 |
| .594 | 4.195 | 2.31430 | .12730 | .05930 | .03200 | .13130 | .04980 | -.06170 | .00720 | -.01760 | 2.14620 |
| .592 | 8.367 | 2.33650 | .30300 | .07620 | .02670 | .33790 | .02740 | -.06040 | .00720 | -.01770 | 4.33180 |
| .596 | 10.475 | 2.33890 | .44070 | .09430 | .02510 | .45050 | .01260 | -.06100 | .00740 | -.01660 | 4.67510 |
| .595 | 12.630 | 2.32900 | .55370 | .12240 | .02500 | .56700 | -.00170 | -.06120 | .00780 | -.01640 | 4.52500 |
| .595 | 14.754 | 2.31350 | .65540 | .17136 | .02880 | .67740 | -.80130 | -.05630 | .00590 | -.01390 | 3.82510 |
| .596 | 16.938 | 2.31320 | .75440 | .22980 | .01840 | .78870 | .06060 | -.05460 | .00590 | -.01230 | 3.28270 |
| .597 | 21.123 | 2.29940 | .96330 | .37910 | .00130 | 1.03520 | .00650 | -.05620 | .00690 | -.01510 | 2.59060 |
| | GRADIENT | .01022 | .04655 | .00076 | -.00017 | .04750 | -.00156 | -.00027 | .00012 | .00005 | .79941 |

RUN NO. 197 0. RNL = 4.21 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|--------|---------|---------|---------|----------|
| .901 | .039 | 2.30330 | -.07690 | .07710 | .05630 | -.07640 | .07720 | -.06790 | .01010 | -.01640 | -1.89110 |
| .901 | 4.255 | 2.32210 | .17120 | .09020 | .02680 | .17750 | .07720 | -.06600 | .00980 | -.01520 | 1.89940 |
| .909 | 6.372 | 2.32720 | .29300 | .10690 | .01670 | .29220 | .07480 | -.06020 | .00720 | -.01290 | 2.64830 |
| .901 | 8.489 | 2.32180 | .37650 | .13430 | .01680 | .39420 | .07690 | -.05110 | .00630 | -.01240 | 2.81780 |
| .900 | 10.625 | 2.33338 | .46640 | .16460 | .01650 | .46680 | .07570 | -.04920 | .00460 | -.01080 | 2.83420 |
| .909 | 12.792 | 2.31500 | .55960 | .20610 | .01550 | .58130 | .07710 | -.04220 | .00380 | -.01100 | 2.71510 |
| .903 | 14.954 | 2.31590 | .65220 | .26140 | .00520 | .70720 | .08170 | -.04380 | -.00890 | -.01290 | 2.53310 |
| .900 | 17.131 | 2.34790 | .74880 | .31450 | .00410 | .80820 | .08000 | -.04070 | -.00520 | -.01260 | 2.36700 |
| .902 | 21.382 | 2.33270 | .87890 | .43480 | .03010 | .97690 | .08450 | -.02730 | -.01450 | -.01030 | 2.05110 |
| | GRADIENT | .00446 | .05876 | .00311 | -.00581 | .06023 | .00000 | -.00045 | -.00028 | -.00028 | .68883 |

RUN NO. 194 0. RNL = 4.26 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| .980 | .070 | 2.28270 | -.07970 | .12330 | .07130 | -.07960 | .12340 | -.06650 | .00860 | -.01540 | -1.64700 |
| .980 | 4.280 | 2.32380 | .18940 | .13760 | .02378 | .19910 | .12300 | -.04890 | .00520 | -.01450 | 1.37660 |
| .979 | 8.575 | 2.33290 | .43980 | .18770 | .02280 | .46280 | .12800 | -.04860 | .00470 | -.01370 | 2.34270 |
| .979 | 10.734 | 2.32230 | .55180 | .22180 | .02450 | .58340 | .11510 | -.04250 | .00530 | -.01370 | 2.48790 |
| .979 | 12.898 | 2.29560 | .65750 | .26940 | .03210 | .70110 | .11580 | -.03400 | .00260 | -.01240 | 2.44050 |
| .979 | 15.055 | 2.34490 | .76380 | .32900 | .03770 | .82300 | .11920 | -.03060 | -.00270 | -.01240 | 2.32140 |
| .979 | 17.255 | 2.34940 | .85190 | .38800 | .03680 | .92870 | .11760 | -.02650 | -.00340 | -.01090 | 2.16560 |
| .991 | 21.546 | 2.31950 | 1.01040 | .52110 | .02810 | 1.14120 | .11360 | -.00460 | -.01370 | -.00260 | 1.99980 |
| | GRADIENT | .00974 | .06380 | .00359 | -.01128 | .06507 | -.00009 | -.00180 | -.00081 | -.00021 | .47975 |

(RE7026) (02 AUG 78)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALFRON = 5.000 BDFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 187/ 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.102 | .052 | 2.29370 | -.05430 | .14260 | .05640 | -.05410 | .14270 | -.04570 | .00660 | .01110 | -.38040 |
| 1.102 | 4.292 | 2.31970 | .21610 | .16270 | .00150 | .22760 | .14600 | -.04200 | .00200 | .01080 | 1.32820 |
| 1.100 | 8.589 | 2.32200 | .44598 | .21340 | -.02790 | .47280 | .14420 | -.03950 | .00250 | .01270 | 2.09229 |
| 1.099 | 10.751 | 2.32370 | .50030 | .24740 | -.02440 | .58680 | .14040 | -.04360 | .00350 | .01120 | 2.27450 |
| 1.101 | 12.933 | 2.31450 | .65930 | .29340 | -.04320 | .71220 | .13750 | -.03710 | .00100 | .01070 | 2.25050 |
| 1.092 | 15.113 | 2.35000 | .77760 | .35310 | -.05440 | .84280 | .13820 | -.04310 | .00220 | .01390 | 2.20220 |
| 1.092 | 17.347 | 2.35860 | .88950 | .42150 | -.06540 | .97470 | .13710 | -.03890 | .00170 | .01320 | 2.11050 |
| 1.102 | 21.636 | 2.33620 | 1.04750 | .56150 | -.05630 | 1.18080 | .13570 | -.03570 | .00590 | .01240 | 1.86550 |
| | GRADIENT | .00513 | .06377 | .00474 | -.01295 | .06644 | .00078 | .00087 | -.00099 | -.00007 | .40296 |

RUN NO. 188/ 0 RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.197 | .053 | 2.28560 | -.02850 | .15120 | .03890 | -.02830 | .15120 | -.04310 | .00330 | .00940 | -.18830 |
| 1.199 | 4.280 | 2.30300 | .21370 | .16570 | -.01100 | .22590 | .14930 | -.02420 | .00240 | .00890 | 1.28930 |
| 1.198 | 8.590 | 2.32930 | .44530 | .21440 | -.04510 | .47330 | .14530 | -.03220 | .00010 | .00840 | 2.02150 |
| 1.198 | 10.753 | 2.33300 | .50170 | .24910 | -.06270 | .58840 | .14180 | -.03890 | .00090 | .00930 | 2.21450 |
| 1.194 | 12.934 | 2.30600 | .65080 | .29530 | -.06030 | .71010 | .13990 | -.03630 | .00050 | .00870 | 2.23760 |
| 1.199 | 15.101 | 2.36320 | .79860 | .34960 | -.06890 | .82390 | .13990 | -.03960 | .00070 | .00920 | 2.16970 |
| 1.193 | 17.328 | 2.36610 | .86940 | .41420 | -.07740 | .94370 | .13950 | -.03480 | -.00310 | .00850 | 2.07480 |
| 1.200 | 21.614 | 2.33560 | 1.00820 | .54170 | -.07570 | 1.13680 | .13220 | -.02110 | -.06888 | .00740 | 1.86130 |
| | GRADIENT | .00413 | .05744 | .00344 | -.01183 | .06019 | -.00045 | .00448 | -.00036 | -.00021 | .35043 |

RUN NO. 177/ 0 RVAL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.400 | .016 | 2.33790 | -.01410 | .14990 | .01800 | -.01400 | .14990 | -.05910 | .00000 | .00660 | -.09380 |
| 1.393 | 4.226 | 2.32730 | .19420 | .15970 | -.01910 | .20650 | .14509 | -.03670 | -.00100 | .00570 | 1.21630 |
| 1.397 | 8.517 | 2.31980 | .40060 | .20070 | -.05080 | .42590 | .13920 | -.02940 | -.00110 | .00510 | 1.59810 |
| 1.397 | 10.674 | 2.33760 | .50130 | .23450 | -.06530 | .53610 | .13770 | -.03320 | .00230 | .00640 | 2.13630 |
| 1.393 | 12.850 | 2.29000 | .65040 | .27950 | -.07750 | .64690 | .13610 | -.02110 | -.00110 | .00170 | 2.17100 |
| 1.393 | 15.034 | 2.35280 | .82210 | .32260 | -.08510 | .76230 | .13230 | -.02860 | .00300 | .00720 | 2.14540 |
| 1.399 | 17.235 | 2.36492 | .93800 | .37880 | -.09370 | .83380 | .12960 | -.03330 | .00500 | .00670 | 2.06890 |
| 1.399 | 21.521 | 2.29320 | .93640 | .50200 | -.09500 | 1.05520 | .12350 | .00170 | -.00690 | .00750 | 1.86560 |
| | GRADIENT | -.00181 | .04948 | .00233 | -.00884 | .05214 | -.00116 | .00413 | -.00024 | -.00021 | .31121 |

(RE7027) (02 AUG 76)

TABULATED DATA - OAI61 (ARC 11-97-87-094)

ARC 11-97-87-894 OAI61 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = 0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0008 IN. ZO
 SCALE = .0300

BETA = 5.000 ELEVON = 5.000
 AIRLON = 5.000 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 2054 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00.

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|--------|---------|----------|
| .567 | 1.08 | 5.36240 | -.05950 | -.02670 | -.05940 | .05370 | -.11670 | .01110 | .01590 | -1.11020 |
| .576 | 4.212 | 5.39310 | .12900 | .02590 | .13270 | .04640 | -.11780 | .01160 | .01430 | 2.30000 |
| .576 | 8.392 | 5.40360 | .33210 | .02320 | .33960 | .02680 | -.11680 | .01120 | .01230 | 4.36530 |
| .595 | 10.814 | 5.39570 | .44310 | .02140 | .45280 | .01140 | -.11070 | .01130 | .01010 | 4.72030 |
| .597 | 12.639 | 5.39410 | .55640 | .01860 | .56940 | -.00350 | -.10810 | .01070 | .00880 | 4.59240 |
| .594 | 14.761 | 5.38790 | .66870 | .01390 | .69000 | -.00540 | -.10820 | .01060 | .00850 | 3.92610 |
| .596 | 16.871 | 5.38530 | .76640 | .01190 | .79850 | -.00430 | -.10500 | .01100 | .00750 | 3.36230 |
| .596 | 21.085 | 5.38700 | .93860 | -.00150 | 1.02730 | -.00030 | -.11320 | .01290 | .00910 | 2.59550 |
| .596 | GRADIENT | .00748 | .00061 | -.00019 | .04678 | -.00178 | -.00027 | .00612 | -.00039 | 6.30454 |

RUN NO. 1967 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| .899 | .067 | 5.37970 | -.08590 | .05080 | -.08580 | .07840 | -.12490 | .01560 | .01460 | -1.09570 |
| .900 | 4.268 | 5.41900 | .16290 | .02410 | .16900 | .07570 | -.12130 | .01460 | .01220 | 1.64850 |
| .902 | 6.398 | 5.42400 | .28250 | .01300 | .29270 | .07550 | -.11950 | .01230 | .00980 | 2.62410 |
| .899 | 8.512 | 5.41980 | .37450 | .01440 | .38940 | .07180 | -.10860 | .01100 | .00780 | 2.91020 |
| .901 | 10.655 | 5.40980 | .46900 | .01250 | .49140 | .07358 | -.10070 | .00700 | .00560 | 2.64030 |
| .900 | 12.794 | 5.41250 | .57110 | .00980 | .58890 | .07750 | -.09580 | .00440 | .00730 | 2.70490 |
| .899 | 14.931 | 5.42420 | .65400 | .00300 | .69740 | .07690 | -.10280 | -.00040 | .00780 | 2.57520 |
| .899 | 17.065 | 5.45160 | .73590 | .00520 | .79280 | .07490 | -.09580 | -.00580 | .00730 | 2.41850 |
| .900 | 21.353 | 5.46300 | .93190 | .05060 | .98600 | .07810 | -.07050 | -.02000 | .00240 | 2.06000 |
| .902 | GRADIENT | .00939 | .00233 | -.00635 | .06065 | -.00064 | .00086 | -.00010 | -.00057 | 7.00899 |

RUN NO. 1954 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| .979 | .080 | 5.39670 | -.08650 | .07040 | -.08650 | .12310 | -.11300 | .01400 | .01200 | -1.70460 |
| .980 | 4.301 | 5.43590 | .18120 | .02520 | .19080 | .12090 | -.10620 | .01080 | .00940 | 1.34310 |
| .977 | 6.588 | 5.41610 | .43260 | .00940 | .45530 | .11780 | -.10000 | .00910 | .00930 | 2.34580 |
| .977 | 10.757 | 5.43950 | .54720 | .00230 | .57850 | .11330 | -.09550 | .00770 | .00740 | 2.24950 |
| .978 | 12.894 | 5.46860 | .64860 | .03096 | .69080 | .11100 | -.09270 | .00360 | .00630 | 2.14250 |
| .977 | 15.044 | 5.46790 | .74820 | .03270 | .80420 | .10960 | -.07840 | -.00040 | .00640 | 2.37870 |
| .981 | 17.205 | 5.44360 | .84300 | .03290 | .91750 | .11320 | -.07130 | .00900 | .00420 | 2.22130 |
| .981 | 21.515 | 5.45000 | 1.01370 | .02820 | 1.13320 | .11030 | -.05910 | -.00700 | .00240 | 1.95510 |
| .981 | GRADIENT | .00541 | .00262 | -.01071 | .05559 | -.00052 | .00161 | -.00076 | -.00062 | 4.8518 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 26891.0000 SQ.FT. XMRP = 1076.6800 IN. XG
 LRPF = 474.8000 IN. YMRP = .0000 IN. YO
 BRPF = 938.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 ATLRON = 5.000 BOFLAP = -7.170

RUN NO. 1864 0 RN/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.098 | .083 | 5.37020 | -.06420 | .14480 | .05300 | -.05400 | .14490 | -.10220 | .01250 | .00600 | 1.37410 |
| 1.100 | 4.314 | 5.41698 | -.21288 | .16430 | .01440 | .22460 | .14780 | -.09470 | .00810 | .00590 | 1.29330 |
| 1.099 | 8.610 | 5.41360 | 4.3980 | .21430 | -.02470 | .46700 | .14600 | -.09250 | .00850 | .00590 | 2.05290 |
| 1.098 | 10.782 | 5.39058 | 5.4880 | .24850 | -.03310 | .58490 | .14160 | -.08580 | .00630 | .00450 | 2.20520 |
| 1.098 | 12.938 | 5.34937 | 6.5810 | .29130 | -.03930 | .70080 | .13790 | -.08230 | .00390 | .00390 | 2.23910 |
| 1.099 | 15.092 | 5.41380 | 7.5680 | .34340 | -.04620 | .82010 | .13450 | -.08120 | .00330 | .00330 | 2.20410 |
| 1.099 | 17.254 | 5.44880 | 8.5110 | .40440 | -.05180 | .93650 | .13250 | -.07740 | .00410 | .00330 | 2.11450 |
| 1.102 | 21.578 | 5.47280 | 1.03736 | .55380 | -.06580 | 1.16830 | .13350 | -.06700 | -.01560 | .00510 | 1.87320 |
| | GRADIENT | .01104 | .06310 | .09461 | -.01219 | .06988 | .00069 | .00177 | -.00104 | -.00002 | .39461 |

RUN NO. 1857 0 RN/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.200 | .078 | 5.40340 | -.06360 | .15840 | .03750 | -.03140 | .15060 | -.10280 | .00780 | .00520 | 1.21620 |
| 1.198 | 4.301 | 5.42170 | -.21140 | .16460 | -.01090 | .22310 | .14830 | -.08990 | .00370 | .00380 | 1.28470 |
| 1.193 | 8.607 | 5.41880 | 4.4350 | .21380 | -.04300 | .47050 | .14500 | -.07950 | .00150 | .00300 | 2.07440 |
| 1.195 | 10.779 | 5.45390 | 5.4490 | .24780 | -.04910 | .58160 | .14180 | -.08330 | .00170 | .00340 | 2.15860 |
| 1.195 | 12.930 | 5.41420 | 6.6310 | .29200 | -.05990 | .70180 | .13830 | -.08500 | -.00020 | .00380 | 2.23650 |
| 1.195 | 15.093 | 5.42960 | 7.5770 | .34530 | -.06850 | .82150 | .13610 | -.08340 | -.00250 | .00520 | 2.19400 |
| 1.195 | 17.255 | 5.47470 | 8.4740 | .40810 | -.07420 | .92940 | .13550 | -.08420 | -.00710 | .00440 | 2.09150 |
| 1.199 | 21.571 | 5.48660 | 1.03830 | .53926 | -.07978 | 1.13590 | .13080 | -.06560 | -.01790 | .00400 | 1.86980 |
| | GRADIENT | .00433 | .05734 | .00336 | -.01146 | .06026 | -.00052 | .00305 | -.00097 | -.00033 | .36281 |

RUN NO. 1784 0 RN/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.402 | .051 | 5.40930 | -.01480 | .15820 | .01580 | -.01470 | .15020 | -.09260 | .00480 | .00410 | 1.09850 |
| 1.400 | 4.255 | 5.43230 | -.19300 | .15970 | -.02090 | .20440 | .14500 | -.07670 | .00170 | .00170 | 1.20650 |
| 1.397 | 8.549 | 5.43520 | 4.9190 | .20230 | -.05230 | .42750 | .14030 | -.07680 | -.00300 | .00110 | 1.99580 |
| 1.397 | 10.719 | 5.40940 | 5.0110 | .23496 | -.06460 | .53610 | .13768 | -.06840 | -.00270 | .00110 | 2.15330 |
| 1.397 | 12.854 | 5.41250 | 5.9560 | .27440 | -.07620 | .64170 | .13500 | -.06990 | -.00200 | .00200 | 2.21070 |
| 1.400 | 15.001 | 5.43900 | 6.8230 | .32020 | -.08230 | .74230 | .13268 | -.07530 | -.00500 | .00260 | 2.13200 |
| 1.399 | 17.174 | 5.48320 | 7.7450 | .37538 | -.08900 | .83080 | .12990 | -.07530 | -.01040 | .00310 | 2.06360 |
| 1.399 | 21.487 | 5.50190 | 9.3270 | .49820 | -.09500 | 1.06040 | .12190 | -.06570 | -.01980 | .00330 | 1.87410 |
| | GRADIENT | .00554 | .04943 | .00226 | -.00873 | .05212 | -.00124 | .00378 | -.00074 | -.00057 | .31869 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = 7.500 BDFLAP = -7.170

SREF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0390

REFERENCE DATA

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| .595 | .141 | -4.90580 | -.04170 | .02810 | -.04168 | .09660 | .04770 | -.00080 | .03290 | -.73780 |
| .596 | 4.205 | -4.98180 | .14400 | .02710 | .14800 | .04930 | .04330 | -.00030 | .03690 | 2.33840 |
| .595 | 8.370 | -4.90310 | .34970 | .02400 | .35760 | .02808 | .04040 | .00030 | .04190 | 4.33940 |
| .595 | 10.480 | -4.88820 | 4.5850 | .02240 | 4.6860 | .01368 | .03630 | .00060 | .04560 | 4.64910 |
| .596 | 12.583 | -4.85930 | 5.7190 | .02050 | 5.8600 | .00038 | .03810 | .00080 | .04670 | 4.48640 |
| .597 | 14.684 | -4.85330 | 6.6300 | .02000 | 6.8640 | .00000 | .04680 | -.00208 | .03900 | 3.81600 |
| .595 | 16.775 | -4.86050 | 7.5430 | .01630 | 7.8950 | .09530 | .05210 | -.00260 | .03690 | 3.23680 |
| .598 | 21.015 | -4.88840 | 9.6930 | .00700 | 1.00970 | .00920 | .06060 | -.00360 | .03200 | 2.59990 |
| | GRADIENT | -.00369 | .04570 | -.00025 | .04666 | -.00188 | -.00108 | .00042 | .00098 | -.77182 |

RUN NO. 2101 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 2111 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| .901 | .124 | -4.96580 | -.03570 | .03540 | -.03550 | .07880 | .05130 | .00340 | .02990 | -.95460 |
| .901 | 4.282 | -4.93750 | .20280 | .01470 | .20930 | .07896 | .04750 | .00260 | .02580 | 2.15110 |
| .901 | 6.396 | -4.94070 | .31070 | .00780 | .32140 | .07800 | .05350 | .00360 | .02940 | 2.74890 |
| .903 | 8.516 | -4.93050 | 4.1210 | .00280 | 4.2840 | .07830 | .05438 | .00350 | .02940 | 2.91950 |
| .897 | 10.651 | -4.91050 | 5.0480 | .00300 | 5.2780 | .07558 | .06498 | .00370 | .03400 | 2.96680 |
| .900 | 12.764 | -4.92350 | 5.8940 | .00018 | 6.2260 | .08080 | .06650 | .00420 | .03000 | 2.78360 |
| .900 | 14.897 | -4.92260 | 6.7590 | -.00290 | 7.2180 | .08420 | .06838 | .00480 | .02860 | 2.56200 |
| .900 | 17.032 | -4.93260 | 7.6170 | -.00080 | 8.2200 | .08290 | .06780 | .00740 | .02860 | 2.38300 |
| .898 | 21.320 | -4.96930 | 8.9310 | .02700 | 9.8860 | .07998 | .07650 | .01390 | .02500 | 2.03570 |
| | GRADIENT | .00442 | .05738 | -.00805 | .05887 | -.00067 | -.00091 | -.00029 | -.00002 | -.62688 |

RUN NO. 2811 0 RVAL = 4.35 GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 2811 0 RVAL = 4.35 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.199 | .115 | -4.98360 | -.01200 | .03150 | -.01170 | .15250 | .07390 | -.00230 | .02890 | -.07890 |
| .203 | 4.280 | -4.95050 | .22940 | .01890 | .24130 | .15028 | .05800 | -.00340 | .02580 | 1.36750 |
| .198 | 8.571 | -4.94330 | .46190 | .05130 | .48920 | .14510 | .07020 | .00026 | .02930 | 2.12530 |
| 1.200 | 10.725 | -4.92860 | .57150 | .08180 | .60930 | .14540 | .06230 | -.00820 | .03040 | 2.23020 |
| .195 | 12.886 | -4.92530 | .68050 | .07090 | .73070 | .14270 | .06880 | -.00030 | .03080 | 2.28270 |
| 1.199 | 15.041 | -4.93890 | .78790 | .08280 | .85370 | .14100 | .06900 | .00000 | .02580 | 2.20230 |
| 1.199 | 17.221 | -4.94170 | 4.1880 | -.08630 | .96170 | .14040 | .06780 | .00260 | .02480 | 2.09680 |
| 1.198 | 21.544 | -4.96130 | 1.01670 | -.07710 | 1.14470 | .13590 | .05410 | .01410 | .02870 | 1.87540 |
| | GRADIENT | -.00780 | .05795 | -.01210 | .06074 | -.00055 | -.00454 | -.00026 | -.00000 | -.34722 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-084 0A161 ORBITER

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 2204 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|----------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.402 | .073 | -4.98790 | .06110 | .01130 | .00430 | .15600 | .08270 | -.00340 | -.01980 | -.00700 |
| 1.402 | 4.235 | -4.93960 | .20730 | -.02530 | .21880 | .14760 | .05210 | -.00470 | -.02370 | 1.28750 |
| 1.398 | 8.503 | -4.95870 | .41160 | -.05470 | .43730 | .14120 | .07530 | -.00670 | -.02100 | 2.07450 |
| 1.401 | 10.650 | -4.96430 | .51100 | -.06710 | .54610 | .13690 | .07690 | -.00810 | -.02100 | 2.15200 |
| 1.400 | 12.801 | -4.93120 | .60750 | -.07840 | .63380 | .13000 | .07570 | -.00910 | -.02050 | 2.19170 |
| 1.399 | 14.968 | -4.95440 | .70280 | -.08810 | .73100 | .12580 | .06530 | -.00940 | -.02100 | 2.15640 |
| 1.398 | 17.132 | -4.95440 | .79200 | -.09500 | .86880 | .12980 | .06530 | -.00910 | -.02100 | 2.08460 |
| 1.398 | 21.478 | -4.95600 | .94700 | -.09850 | 1.05600 | .12300 | .05130 | -.01330 | -.02300 | 1.87610 |
| | GRADIENT | .01177 | .04953 | -.00879 | .03225 | -.00123 | -.00735 | -.00038 | -.00022 | -.30280 |

19E70281 (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = 7.500 EDFLAP = -7.170

ARC 11-97-87-094 0A161 ORBITER

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 2094 0 RM/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| .595 | .105 | -1.85180 | -.05030 | .03800 | -.05610 | .05600 | -.00890 | .00340 | .03050 | -.85330 |
| .597 | 4.181 | -1.82360 | .13690 | -.02960 | .14110 | .05180 | -.00970 | -.00460 | -.03310 | 2.23860 |
| .597 | 8.343 | -1.81870 | .34290 | -.02410 | .35100 | .03080 | -.01050 | -.00420 | -.03610 | 4.24450 |
| .595 | 10.450 | -1.81830 | .44940 | -.02350 | .45990 | .01560 | -.01010 | -.00450 | -.03620 | 4.55020 |
| .595 | 12.577 | -1.80450 | .56400 | -.02320 | .57620 | .00160 | -.01350 | -.00430 | -.03500 | 4.42440 |
| .595 | 14.676 | -1.81050 | .65760 | -.02250 | .68060 | .00250 | -.00370 | -.00170 | -.03320 | 3.76560 |
| .596 | 16.803 | -1.84160 | .75170 | -.01800 | .78730 | .00660 | -.00160 | -.00120 | -.02950 | 3.21160 |
| .597 | 21.061 | -1.84160 | .95610 | -.00430 | 1.02940 | .01270 | -.00750 | -.00110 | -.02750 | 2.50440 |
| | GRADIENT | .00694 | .04593 | -.00010 | .04691 | -.00177 | -.00125 | -.00029 | -.00064 | -.5132 |

19E70291 (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = 7.500 EDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YQ
 BPEF = 935.6800 IN. ZMRP = 375.3000 IN. ZQ
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVOM = .000
 ALLRON = 7.500 BDFLAP = -7.170

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| .900 | -.058 | -1.83560 | -.05540 | .08200 | .04460 | -.05530 | .08210 | -.00690 | .00930 | .02680 | -.67540 |
| .901 | 4.255 | -1.85520 | .19340 | .09560 | .01850 | .28000 | .08990 | .00170 | .00860 | .02720 | 2.02410 |
| .902 | 6.372 | -1.85230 | .30300 | .11290 | .00970 | .31360 | .07860 | -.00620 | .00730 | .02450 | 2.68410 |
| .903 | 8.491 | -1.83960 | .40070 | .14050 | .00680 | .41710 | .07980 | .00210 | .00730 | .02490 | 2.85260 |
| .904 | 10.624 | -1.83310 | .48550 | .17170 | .00500 | .50880 | .07920 | .00770 | .00840 | .02320 | 2.82800 |
| .905 | 12.755 | -1.82750 | .57740 | .21330 | .00720 | .61020 | .08050 | .01230 | .00540 | .02490 | 2.70710 |
| .906 | 14.874 | -1.82720 | .67300 | .26630 | .00330 | .71880 | .08700 | .01220 | .00230 | .02600 | 2.52670 |
| .907 | 17.057 | -1.88510 | .76010 | .32240 | -.00190 | .82120 | .08530 | .01840 | .00330 | .02460 | 2.35740 |
| .908 | 21.365 | -1.85940 | .83640 | .44330 | .02260 | .95640 | .08630 | .02170 | .00390 | .01990 | 2.02200 |
| .909 | GRADIENT | -.00467 | .05929 | .00324 | -.00822 | .06084 | -.00029 | .00205 | -.00017 | .00010 | 64.329 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|--------|---------|--------|---------|
| 1.200 | .019 | -1.84000 | -.01870 | .15340 | .03470 | -.01850 | .15350 | .00910 | .00090 | .02150 | -.12160 |
| 1.199 | 4.250 | -1.86980 | .22660 | .17000 | -.01760 | .23860 | .15270 | .02430 | .00100 | .02210 | 1.33280 |
| 1.201 | 8.549 | -1.84470 | .45580 | .21750 | -.05140 | .48300 | .14730 | .02490 | .00040 | .02210 | 2.09540 |
| 1.193 | 10.725 | -1.81770 | .56730 | .25490 | -.06060 | .60500 | .14480 | .01620 | .00060 | .02490 | 2.22650 |
| 1.195 | 12.875 | -1.81950 | .67350 | .30130 | -.06760 | .72370 | .14360 | .02100 | .00100 | .02410 | 2.23540 |
| 1.199 | 15.027 | -1.85560 | .77270 | .35990 | -.07570 | .83850 | .14340 | .02670 | -.00040 | .02770 | 2.17140 |
| 1.194 | 17.244 | -1.89590 | .86950 | .41930 | -.08360 | .95480 | .14270 | .02390 | -.00100 | .02100 | 2.07350 |
| 1.199 | 21.584 | -1.87640 | 1.01590 | .54970 | -.07830 | 1.14690 | .13740 | .01790 | .00460 | .02270 | 1.94830 |
| 1.199 | GRADIENT | -.00709 | .05837 | .00395 | -.01245 | .06118 | -.00019 | .00362 | -.00802 | .00014 | 34.610 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|--------|---------|---------|---------|
| 1.404 | .051 | -1.89200 | -.00290 | .15290 | .01400 | -.02280 | .15290 | .02110 | -.00050 | .01600 | -.01900 |
| 1.402 | 4.218 | -1.88080 | .20270 | .16310 | -.02310 | .21410 | .14780 | .03160 | .00020 | .01640 | 1.24270 |
| 1.400 | 8.492 | -1.83450 | .40700 | .20440 | -.05310 | .43270 | .14200 | .01940 | -.00150 | .01650 | 1.99150 |
| 1.399 | 10.656 | -1.82580 | .51020 | .23810 | -.05840 | .54540 | .13970 | .02360 | -.00120 | .01620 | 2.14260 |
| 1.399 | 12.799 | -1.81640 | .60710 | .27860 | -.07970 | .65370 | .13720 | .02320 | -.00150 | .01570 | 2.17890 |
| 1.400 | 14.940 | -1.84610 | .69560 | .32450 | -.08750 | .75660 | .13390 | .02150 | -.00060 | .01800 | 2.14250 |
| 1.402 | 17.199 | -1.81580 | .78920 | .38130 | -.09560 | .85640 | .13150 | .03340 | -.00130 | .01790 | 2.06850 |
| 1.399 | 21.511 | -1.83460 | .94620 | .50860 | -.09890 | 1.06880 | .12630 | .02760 | .00350 | .01760 | 1.86930 |
| 1.399 | GRADIENT | .00269 | .04934 | .00245 | -.00890 | .05205 | -.00122 | .00252 | .00017 | -.00010 | .50273 |

TABLATED DATA - 04161 (ARC 11-97-87-094)
ARC 11-97-87-094 04161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 938.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA =
AIRON =

ELEVON = .000
BDFLAP = -7.170

PARAMETRIC DATA

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|---------|---------|---------|---------|---------|--------|---------|
| .596 | .071 | .20980 | -.09689 | .03080 | -.05640 | .05940 | -.04000 | .00620 | .02900 | -.95250 |
| .595 | 4.173 | .28290 | .13090 | .03030 | .13500 | .05180 | -.04420 | .00700 | .03090 | 2.12910 |
| .594 | 6.242 | .22690 | .23220 | .02800 | .23820 | .04320 | -.04320 | .00730 | .03170 | 3.40060 |
| .594 | 8.338 | .23680 | .34070 | .02470 | .34880 | .03040 | -.04650 | .08740 | .03240 | 4.22440 |
| .596 | 10.432 | .23030 | .44440 | .02340 | .45480 | .01580 | -.04010 | .00720 | .03330 | 4.54170 |
| .595 | 12.527 | .23370 | .54520 | .02330 | .56910 | .00190 | -.04560 | .00720 | .03330 | 4.43080 |
| .595 | 14.642 | .24740 | .64830 | .02230 | .67070 | .00250 | -.03840 | .00450 | .02810 | 3.76990 |
| .595 | 16.766 | .23810 | .74590 | .01820 | .78070 | .00540 | -.03220 | .00430 | .02490 | 3.23790 |
| .597 | 21.019 | .22850 | .84160 | .00160 | .88270 | .01230 | -.03120 | .00520 | .02520 | 2.51310 |
| .597 | 25.185 | .21690 | 1.06500 | .00980 | 1.18070 | .00820 | -.00290 | -.00010 | .01170 | 2.08890 |
| | GRADIENT | .00319 | .04568 | -.00012 | .04665 | -.00185 | -.00102 | .00020 | .00046 | .75122 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| .898 | .044 | .22400 | -.06920 | .04990 | -.06920 | .08340 | -.04330 | .01080 | .02550 | -.83080 |
| .900 | 4.253 | .22950 | .18440 | .02180 | .19100 | .08110 | -.04080 | .01010 | .02520 | 1.54430 |
| .902 | 6.371 | .22950 | .30150 | .00930 | .31260 | .06140 | -.03290 | .00920 | .02300 | 2.60900 |
| .895 | 8.491 | .24180 | .41950 | .00790 | .42500 | .07840 | -.03550 | .00830 | .02250 | 2.86240 |
| .901 | 10.641 | .23750 | .49520 | .00590 | .51910 | .08120 | -.02750 | .00630 | .02200 | 2.81940 |
| .902 | 12.748 | .22430 | .57030 | .00970 | .60300 | .08050 | -.01760 | .00530 | .02160 | 2.69810 |
| .903 | 14.893 | .24140 | .67010 | .00000 | .71600 | .08480 | -.01760 | .00280 | .02230 | 2.51980 |
| .903 | 17.037 | .23840 | .76110 | -.00320 | .82260 | .08580 | -.01450 | -.00820 | .02180 | 2.34660 |
| .899 | 21.304 | .22150 | .88710 | .02510 | .95650 | .08000 | -.00370 | -.00520 | .01800 | 2.01440 |
| .899 | 25.478 | .19600 | .91390 | .10200 | 1.05500 | .08980 | .03470 | -.00690 | .00350 | 1.70840 |
| | GRADIENT | .00131 | .06025 | -.00668 | .06182 | -.00055 | .00055 | -.00019 | -.00007 | .65635 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.200 | .048 | .21090 | -.02240 | .03980 | -.02220 | .15460 | -.01740 | .00370 | .01890 | -.14470 |
| 1.196 | 4.274 | .22820 | .22300 | -.01540 | .23500 | .15320 | -.01810 | .00080 | .01890 | 1.30970 |
| 1.196 | 6.401 | .22270 | .34260 | .03640 | .35170 | .15110 | -.00650 | .00100 | .01920 | 1.79840 |
| 1.193 | 8.570 | .23560 | .45420 | .04970 | .46150 | .14720 | -.00670 | .00060 | .01850 | 2.09030 |
| 1.193 | 10.738 | .23360 | .56400 | .05920 | .56170 | .14390 | -.00940 | .00140 | .02120 | 2.22660 |
| 1.196 | 12.898 | .23360 | .67330 | .06760 | .72330 | .14260 | -.01330 | .00080 | .02030 | 2.24070 |
| 1.195 | 15.059 | .24170 | .76710 | .07340 | .83290 | .14300 | -.01130 | -.00180 | .02060 | 2.16380 |
| 1.200 | 17.223 | .22150 | .86410 | .08290 | .94940 | .14310 | -.00250 | -.00180 | .01760 | 2.05870 |
| 1.195 | 21.530 | .21590 | .91590 | .07850 | 1.14420 | .13770 | .00040 | -.00270 | .01630 | 1.83010 |
| 1.193 | 25.753 | .21270 | 1.11020 | .05620 | 1.29300 | .12930 | -.00400 | -.00480 | .01400 | 1.63450 |
| | GRADIENT | .00409 | .05807 | -.01204 | .05886 | -.00033 | -.00017 | -.00069 | .00000 | .34416 |

ARC 11-97-87-094 OAI61 ORBITER

REFERENCE DATA

3REF = 2690.0000 SQ.FT. XMRP = 1076.6808 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = 7.500 BOFLAP = -7.170

RUN. NO. 218/ 0 RM/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CM | CA | CY | CYN | CBL | L/D |
|-------|--------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.402 | .15 | .18860 | -.00800 | .19260 | -.01560 | -.00800 | .15260 | -.00600 | .00160 | .01400 | -.05250 |
| 1.401 | 4.220 | .21030 | .19980 | .16310 | -.02150 | .21130 | .14800 | -.00390 | -.00020 | .01340 | 1.22480 |
| 1.400 | 8.341 | .24140 | .30220 | .17930 | -.03760 | .32020 | .14480 | -.01360 | -.00190 | .01360 | 1.68960 |
| 1.399 | 10.457 | .23280 | .40410 | .20360 | -.05240 | .42970 | .14110 | -.00260 | -.00120 | .01350 | 1.99030 |
| 1.398 | 12.573 | .23520 | .50590 | .23630 | -.06760 | .54060 | .13870 | -.00300 | -.00190 | .01320 | 2.14090 |
| 1.397 | 14.689 | .23710 | .60780 | .27830 | -.08100 | .65430 | .13680 | -.00730 | -.00250 | .01360 | 2.18350 |
| 1.396 | 16.805 | .25050 | .70050 | .32650 | -.09010 | .76110 | .13460 | -.01030 | -.00320 | .01400 | 2.14730 |
| 1.395 | 18.921 | .23640 | .78950 | .38110 | -.09730 | .86670 | .13170 | -.00580 | -.00300 | .01450 | 2.07180 |
| 1.394 | 21.037 | .25140 | .84410 | .44620 | -.09860 | 1.06420 | .12710 | -.01910 | -.00570 | .01530 | 1.86120 |
| 1.393 | 23.153 | .20070 | 1.06410 | .64620 | -.08560 | 1.23900 | .12080 | -.01340 | -.00240 | .01530 | 1.64680 |
| 1.392 | 25.269 | .00516 | .04942 | .00290 | -.00892 | .05215 | -.00109 | .00056 | -.00943 | -.00044 | .30363 |

ARC 11-97-87-094 OAI61 ORBITER

ARC 11-97-87-094 (02 AUG 76)

REFERENCE DATA

3REF = 2890.0000 SQ.FT. XMRP = 1076.6808 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = 7.500 BOFLAP = -7.170

RUN. NO. 207/ 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CM | CA | CY | CYN | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|---------|---------|--------|---------|---------|
| 1.402 | .070 | 2.29780 | -.05810 | .05850 | .02840 | -.05800 | .05850 | -.07210 | .00910 | .02790 | -.59400 |
| 1.401 | 4.184 | 2.31760 | .13190 | .06260 | .02790 | .13610 | .05240 | -.08060 | .00940 | .02840 | 2.11930 |
| 1.400 | 8.367 | 2.33240 | .33870 | .08890 | .02240 | .34680 | .03050 | -.08060 | .00940 | .02870 | 4.20580 |
| 1.399 | 10.452 | 2.34420 | .45640 | .09910 | .01960 | .46090 | .01570 | -.07780 | .00990 | .02760 | 4.54350 |
| 1.398 | 12.537 | 2.33980 | .58470 | .12770 | .01910 | .57900 | .00120 | -.07960 | .01010 | .02790 | 4.42090 |
| 1.397 | 14.622 | 2.32250 | .68160 | .17600 | .01690 | .68460 | .00170 | -.07180 | .00800 | .02420 | 3.75820 |
| 1.396 | 16.707 | 2.31730 | .75920 | .23450 | .01390 | .79460 | .00360 | -.06890 | .00760 | .02120 | 3.23730 |
| 1.395 | 18.792 | 2.30420 | .84410 | .39950 | -.00240 | 1.04790 | .00960 | -.07320 | .00870 | .02440 | 2.52010 |
| 1.394 | 20.877 | .00481 | .04619 | .00090 | -.00422 | .04718 | -.00148 | -.00207 | .00007 | -.00022 | .75663 |

(RET031) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. XC
 LREF = 474.8000 IN. YMRP = .0000 IN. YC
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZC
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 AILRON = 7.500 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 214/ 0 RVL = 4.26 GRADIENT INTERVAL = -5.09/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .902 | .054 | 2.29100 | -.07660 | .08290 | .05190 | -.07650 | .08290 | -.07760 | .01170 | .02440 | -.92460 |
| .902 | 4.261 | 2.34000 | .17640 | .09430 | .02200 | .18290 | .08095 | -.07850 | .01109 | .02320 | 1.67140 |
| .901 | 6.389 | 2.37180 | .29660 | .11420 | .00940 | .30750 | .08050 | -.07260 | .00890 | .02170 | 2.59706 |
| .900 | 8.517 | 2.33510 | .39790 | .14080 | .00650 | .41440 | .07950 | -.06410 | .00860 | .02020 | 2.82210 |
| .901 | 10.651 | 2.33320 | .49630 | .17220 | .00570 | .50870 | .07860 | -.05570 | .00810 | .01790 | 2.81760 |
| .901 | 12.807 | 2.30590 | .57740 | .21330 | .00690 | .61040 | .08061 | -.05210 | .00410 | .01800 | 2.69930 |
| .901 | 14.974 | 2.35560 | .64360 | .27210 | .00310 | .72780 | .08740 | -.04990 | -.00020 | .02010 | 2.50180 |
| .905 | 17.167 | 2.35910 | .76860 | .36890 | -.00530 | .83140 | .08740 | -.04270 | -.00660 | .02100 | 2.33710 |
| .904 | 21.412 | 2.33390 | .88330 | .44270 | .02850 | .98860 | .08780 | -.02190 | -.01410 | .01280 | 2.06570 |
| GRADIENT | | .01165 | .00271 | -.0044E | -.0004E | .08167 | -.0004E | -.00024 | -.00017 | -.00029 | .66459 |

RUN NO. 224/ 0 RVL = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.197 | .064 | 2.27690 | -.02390 | .15560 | .03630 | -.02370 | .15560 | -.04370 | .00640 | .01610 | -.15350 |
| 1.198 | 4.279 | 2.33980 | .17140 | .23130 | -.01420 | .23130 | .15460 | -.04850 | .00190 | .01560 | 1.27810 |
| 1.199 | 8.593 | 2.35370 | .21650 | .28510 | -.04950 | .48070 | .14830 | -.03850 | .00700 | .01530 | 2.07380 |
| 1.195 | 10.758 | 2.33380 | .25360 | .39840 | -.05760 | .59840 | .14440 | -.04080 | .00750 | .01640 | 2.24210 |
| 1.195 | 12.938 | 2.30990 | .30020 | .50020 | -.06690 | .72010 | .14260 | -.03980 | .00800 | .01610 | 2.25170 |
| 1.197 | 15.108 | 2.36590 | .39490 | .66900 | -.07370 | .83390 | .14240 | -.04080 | .00060 | .01620 | 2.16420 |
| 1.193 | 17.334 | 2.37190 | .41930 | .85940 | -.08180 | .95020 | .14160 | -.03670 | -.00400 | .01450 | 2.06780 |
| 1.198 | 21.623 | 2.34330 | .54760 | 1.14970 | -.07950 | 1.14970 | .13490 | -.02490 | -.00850 | .01300 | 1.85410 |
| GRADIENT | | .01435 | .00375 | -.00198 | -.00024 | .06049 | -.00024 | -.00114 | -.00107 | -.00012 | .33961 |

RUN NO. 217/ 0 RVL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.193 | .017 | 2.31550 | -.00970 | .15380 | .01610 | -.00970 | .15380 | -.04870 | .00180 | .01160 | -.06310 |
| 1.192 | 4.224 | 2.31700 | .16420 | .20860 | -.02160 | .20860 | .14320 | -.03190 | -.00020 | .01060 | 1.25580 |
| 1.195 | 8.514 | 2.33200 | .20440 | .25310 | -.05310 | .43110 | .14220 | -.03710 | .00280 | .01060 | 1.98270 |
| 1.197 | 10.670 | 2.32390 | .28300 | .34250 | -.06950 | .54250 | .13840 | -.03090 | .00250 | .01160 | 2.12750 |
| 1.195 | 12.843 | 2.30520 | .32710 | .45340 | -.08120 | .65340 | .13840 | -.02830 | .00260 | .01200 | 2.18430 |
| 1.191 | 15.011 | 2.34450 | .41370 | .56080 | -.09360 | .75080 | .13470 | -.02650 | .00370 | .01200 | 2.13980 |
| 1.193 | 17.234 | 2.35630 | .49530 | .68930 | -.09660 | .86930 | .13200 | -.02580 | .00580 | .01160 | 2.05160 |
| 1.192 | 21.527 | 2.34400 | .60970 | .94500 | -.09990 | 1.05710 | .12700 | -.01900 | -.01090 | .01210 | 1.85510 |
| GRADIENT | | .00036 | .00247 | -.00096 | -.00105 | .05218 | -.00105 | .00399 | -.00048 | -.00024 | .30187 |

(RE7032) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2590.000 SQ.FT. YMRP = 1076.6800 IN. X0
LRF = 474.8000 IN. YMRP = .0800 IN. Y0
BPF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0360

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AIRLON = 7.500 BDFEAP = -7.170

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|--------|---------|---------|
| .587 | .111 | 5.37160 | -.05120 | .05990 | .02180 | -.05100 | .05680 | -.13090 | .01320 | .02560 | -.91550 |
| .597 | 4.213 | 5.39950 | .13520 | .05960 | .02130 | -.04910 | .04910 | -.13010 | .01460 | .02470 | 2.29900 |
| .596 | 6.297 | 5.40680 | .23740 | .06730 | .01950 | .24330 | .04080 | -.13390 | .01400 | .02440 | 3.52850 |
| .595 | 8.359 | 5.41240 | .34060 | .07940 | .01860 | .34850 | .02880 | -.13230 | .01410 | .02290 | 4.29090 |
| .596 | 10.511 | 5.40820 | .45190 | .09840 | .01610 | .45220 | .01430 | -.13040 | .01390 | .02870 | 4.58210 |
| .596 | 12.635 | 5.40920 | .56370 | .12560 | .01330 | .57750 | -.00070 | -.12910 | .01280 | .01870 | 4.49710 |
| .596 | 14.758 | 5.40100 | .67140 | .17320 | .00860 | .69340 | -.00350 | -.12590 | .01260 | .01870 | 3.87630 |
| .596 | 16.867 | 5.39790 | .77030 | .23090 | .00600 | .80410 | -.00250 | -.12330 | .01450 | .01800 | 3.35600 |
| .596 | 21.082 | 5.40620 | .96120 | .37280 | -.00520 | 1.03100 | .00200 | -.12950 | .00034 | -.00022 | 2.57870 |
| | GRADIENT | .00560 | .04568 | .00080 | .00002 | .04658 | -.00168 | .00020 | | | .78367 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|-----------|
| .902 | .065 | 5.40050 | -.08750 | .08420 | .05180 | -.08740 | .08430 | -.13260 | .01670 | .02230 | -.1.03970 |
| .901 | 4.273 | 5.42290 | .17080 | .09440 | .01950 | .17730 | .08140 | -.12900 | .01990 | .01990 | 1.88900 |
| .899 | 6.402 | 5.42850 | .28920 | .11230 | .00800 | .30000 | .07940 | -.12680 | .01420 | .01780 | 2.57470 |
| .904 | 8.530 | 5.43050 | .39140 | .13720 | .00500 | .40740 | .07760 | -.12080 | .01230 | .01520 | 2.85350 |
| .902 | 10.678 | 5.41350 | .49420 | .17060 | .00330 | .50740 | .07790 | -.10950 | .00890 | .01260 | 2.83880 |
| .902 | 12.809 | 5.42250 | .57230 | .21340 | .00050 | .60540 | .08130 | -.11160 | .00450 | .01390 | 2.68120 |
| .903 | 14.946 | 5.43360 | .66510 | .26100 | -.00510 | .70990 | .08060 | -.10360 | .00120 | .01520 | 2.54860 |
| .897 | 17.084 | 5.45790 | .75930 | .31900 | -.00260 | .81950 | .08180 | -.08830 | .00570 | .01400 | 2.37990 |
| .902 | 21.387 | 5.47840 | .89570 | .43930 | .02880 | .99520 | .08210 | -.07930 | -.02034 | .00670 | 2.04120 |
| | GRADIENT | .00532 | .06139 | .00242 | -.00768 | .06294 | -.00069 | .00086 | -.00097 | -.00057 | .67700 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.197 | .077 | 5.39410 | -.02900 | .15490 | .03590 | -.02880 | .15500 | -.10010 | .01050 | .01240 | -.18710 |
| 1.199 | 4.298 | 5.42780 | .21420 | .16910 | -.01280 | .28630 | .15260 | -.09450 | .00550 | .01130 | 1.26700 |
| 1.191 | 6.609 | 5.42830 | .45090 | .21860 | -.04730 | .47850 | .14670 | -.08720 | .00190 | .00950 | 2.06250 |
| 1.195 | 10.782 | 5.40950 | .55600 | .25440 | -.05570 | .59380 | .14590 | -.08750 | .00280 | .01100 | 2.18530 |
| 1.195 | 12.933 | 5.42030 | .66030 | .29780 | -.06480 | .71020 | .14240 | -.08820 | .00010 | .01100 | 2.21730 |
| 1.195 | 15.097 | 5.43610 | .76490 | .35110 | -.07420 | .82990 | .13970 | -.08820 | -.00310 | .01080 | 2.17890 |
| 1.200 | 17.255 | 5.47000 | .95100 | .40940 | -.08560 | .93420 | .13850 | -.08920 | -.00730 | .01020 | 2.07890 |
| 1.195 | 21.581 | 5.49910 | 1.01760 | .54680 | -.08470 | 1.14740 | .13420 | -.06710 | -.01860 | .01070 | 1.86090 |
| | GRADIENT | .00798 | .05762 | .00336 | -.01154 | .06044 | -.00057 | .00133 | -.00118 | -.00026 | .34453 |

TABLATED DATA - 0A161 (ARC 11-87-87-084)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = 5.000 ELEVON = .000
AILRON = 7.500 BDFLAP = -7.170

RUN NO. 216/ 0 RWL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.397 | .051 | 5.42770 | -.01120 | .01440 | -.01110 | .15370 | -.10440 | .00520 | .00890 | -.07320 |
| 1.400 | 4.247 | 5.43220 | .19510 | .02310 | .20670 | .14900 | -.08320 | .00160 | .00670 | 1.18990 |
| 1.397 | 8.531 | 5.45630 | 4.0340 | -.05370 | .42940 | .14340 | -.08950 | -.00410 | .00630 | 1.96240 |
| 1.397 | 12.703 | 5.42240 | 5.0370 | -.06710 | .52930 | .14090 | -.07630 | -.00380 | .00610 | 2.11190 |
| 1.395 | 12.845 | 5.41860 | .60100 | -.07990 | .64790 | .13780 | -.07410 | -.00470 | .00670 | 2.15660 |
| 1.395 | 14.997 | 5.44860 | .69070 | -.08660 | .75130 | .13510 | -.06370 | -.00680 | .00710 | 2.12970 |
| 1.395 | 17.160 | 5.46660 | .77950 | -.09280 | .85670 | .13230 | -.05620 | -.01040 | .00800 | 2.09900 |
| 1.398 | 21.481 | 5.49870 | .94050 | -.09940 | 1.06020 | .12940 | -.05680 | -.02080 | .00850 | 1.86290 |
| 1.398 | GRADIENT | .00107 | .04917 | -.00894 | .05191 | -.00112 | .00505 | -.00086 | -.00052 | .30106 |

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = -5.000 ELEVON = .000
AILRON = 10.000 BDFLAP = -7.120

RUN NO. 252/ 0 RWL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.395 | .147 | -4.90550 | -.04310 | .02960 | -.04290 | .06220 | .03590 | .00160 | .04340 | -.69370 |
| 1.397 | 4.211 | -4.91050 | .14370 | .02750 | .14610 | .05490 | -.02740 | .00330 | .04770 | 2.19050 |
| 1.397 | 8.575 | -4.89700 | .34510 | .02480 | .35380 | .03390 | .02670 | -.00320 | .05330 | 4.05610 |
| 1.397 | 12.984 | -4.89280 | .45380 | .02370 | .46610 | .01950 | .02090 | .00350 | .05710 | 4.38990 |
| 1.397 | 12.595 | -4.89580 | .56330 | .02180 | .58390 | .00680 | .02210 | .00340 | .05650 | 4.24300 |
| 1.395 | 14.690 | -4.84570 | .65990 | .02350 | .68170 | .00630 | .03210 | .00340 | .05660 | 3.67670 |
| 1.397 | 16.782 | -4.85340 | .74220 | .02090 | .77820 | .00630 | .03950 | .00070 | .04540 | 3.15890 |
| 1.397 | 21.323 | -4.88240 | .93050 | .01250 | 1.00230 | .01390 | .04750 | -.00210 | .04110 | 2.49780 |
| 1.397 | GRADIENT | -.00123 | .05096 | -.00032 | .04700 | -.00180 | .00309 | -.00042 | .00105 | .70366 |

(RE70331 (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A161 ORBITER

REFERENCE DATA

SREF = 2693.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AILRON = 10.000 BOFLAP = -7.170

RUN# NO. 251 / 0 RVL = 4.22 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|--------|---------|--------|---------|
| .900 | .111 | -4.92430 | -.04580 | .08860 | .04040 | -.04560 | .08870 | .03360 | .00610 | .03920 | -.56700 |
| .899 | 4.275 | -4.93190 | .19890 | .10020 | .01400 | .20590 | .08510 | .03550 | .00570 | .03960 | 1.96460 |
| .898 | 6.392 | -4.92690 | .31270 | .12070 | .00480 | .32420 | .08510 | .03910 | .00610 | .03710 | 2.59070 |
| .897 | 8.513 | -4.92670 | .41740 | .14890 | -.00100 | .43490 | .08530 | .04700 | .00560 | .03740 | 2.88530 |
| .896 | 10.645 | -4.91270 | .51770 | .18370 | -.00340 | .52770 | .08490 | .04460 | .00520 | .03730 | 2.81750 |
| .895 | 12.761 | -4.91030 | .59550 | .22390 | -.00380 | .63120 | .08650 | .05710 | .00490 | .03720 | 2.66940 |
| .894 | 14.899 | -4.91610 | .68420 | .27510 | -.00500 | .73200 | .09020 | .06690 | .00460 | .03640 | 2.48440 |
| .893 | 17.037 | -4.92650 | .77340 | .33280 | -.00540 | .83690 | .09160 | .06280 | .00400 | .03540 | 2.32250 |
| .892 | 21.322 | -4.96400 | .89369 | .44590 | -.02590 | .96390 | .09020 | .07810 | .01320 | .03080 | 2.09510 |
| .901 | GRADIENT | -.00182 | .05877 | .00279 | -.00634 | .06040 | -.00086 | .00046 | -.00010 | .00010 | .69078 |

RUN# NO. 241 / 0 RVL = 4.24 GRADIENT INTERVAL = -5.304 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|--------|--------|--------|---------|
| .980 | .126 | -4.94260 | -.04770 | .13400 | .05390 | -.04740 | .13410 | .04160 | .00540 | .04340 | -.35580 |
| .981 | 4.298 | -4.94090 | .20200 | .15030 | .00670 | .23080 | .13340 | .03970 | .00570 | .04360 | 1.44650 |
| .982 | 6.572 | -4.91760 | .47210 | .20530 | -.02850 | .49740 | .13260 | .03910 | .00640 | .04240 | 2.29960 |
| .983 | 10.715 | -4.90330 | .59880 | .24070 | -.04260 | .62330 | .12700 | .04260 | .00380 | .04120 | 2.44680 |
| .984 | 12.860 | -4.89500 | .69620 | .28810 | -.05100 | .74290 | .12600 | .04410 | .00180 | .04160 | 2.41620 |
| .985 | 15.014 | -4.91830 | .79030 | .34060 | -.05090 | .85160 | .12420 | .05760 | .00120 | .03960 | 2.32040 |
| .986 | 17.167 | -4.93290 | .87450 | .40410 | -.04690 | .94490 | .12800 | .05410 | .00540 | .03910 | 2.18390 |
| .987 | 21.472 | -4.94560 | 1.01010 | .53010 | -.02850 | 1.13000 | .12360 | .06260 | .00990 | .03160 | 1.90630 |
| .981 | GRADIENT | .00041 | .06422 | .00391 | -.01131 | .06669 | -.00017 | .00046 | .00007 | .00045 | .43648 |

RUN# NO. 240 / 0 RVL = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|--------|--------|---------|---------|---------|
| .109 | .113 | -4.93890 | -.02780 | .15610 | -.04140 | -.02790 | .15610 | .04670 | .00130 | .04100 | -.17820 |
| .108 | 4.303 | -4.94090 | .24140 | .17640 | -.01220 | .25390 | .15780 | .04530 | .00200 | .04070 | 1.36950 |
| .107 | 6.579 | -4.91530 | .52050 | .22940 | -.04610 | .56940 | .15810 | .04540 | .00340 | .04180 | 2.08510 |
| .106 | 10.731 | -4.90570 | .58750 | .26560 | -.05210 | .62670 | .15160 | .04250 | .00260 | .04000 | 2.21170 |
| .105 | 12.882 | -4.90580 | .69130 | .31030 | -.05700 | .74310 | .14930 | .05220 | .00190 | .03920 | 2.22810 |
| .104 | 15.052 | -4.91610 | .79070 | .36540 | -.06100 | .86850 | .14750 | .05800 | -.00100 | .03820 | 2.18390 |
| .103 | 17.218 | -4.92680 | .89630 | .43240 | -.07370 | .98660 | .14710 | .06590 | -.00910 | .03340 | 2.07760 |
| .102 | 21.539 | -4.94350 | 1.04720 | .55840 | -.06790 | 1.18280 | .14430 | .05890 | .00820 | .03160 | 1.89230 |
| .100 | GRADIENT | -.00048 | .06425 | .00484 | -.01279 | .06716 | .00041 | .00010 | .00017 | -.00007 | .36915 |

(RE7033) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
ATLON = 10.080 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2696.0000 SQ.FT. XMRP = 1876.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
SREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 231 / 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.199 | .110 | -4.96370 | -.01440 | .03040 | -.01410 | .15840 | .06690 | -.00078 | .03348 | -.09100 |
| 1.197 | 4.282 | -4.95040 | .23150 | -.02210 | .24390 | .15650 | .05860 | -.00160 | .03400 | 1.32650 |
| 1.195 | 8.562 | -4.93370 | .46530 | -.05630 | .49350 | .15250 | .05650 | -.00170 | .03580 | 2.07490 |
| 1.193 | 10.721 | -4.91530 | .57650 | -.06700 | .61940 | .15190 | .05810 | .00170 | .03720 | 2.18930 |
| 1.191 | 12.881 | -4.94290 | .68340 | -.07490 | .73530 | .14990 | .05490 | .08080 | .03690 | 2.20430 |
| 1.189 | 15.057 | -4.94290 | .79370 | -.08680 | .86190 | .14890 | .06830 | .00070 | .03290 | 2.16090 |
| 1.196 | 17.215 | -4.93760 | .88160 | -.09660 | .96860 | .14730 | .06520 | .00280 | .03500 | 2.06280 |
| 1.195 | 21.539 | -4.95700 | 1.01940 | -.08040 | 1.15040 | .13900 | .05280 | .01660 | .03330 | 1.85310 |
| | GRADIENT | .00079 | .05893 | -.01268 | .06183 | -.00046 | -.00095 | .00002 | .03074 | -.54028 |

RUN NO. 230 / 0 RVAL = 4.24 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|
| 1.398 | .073 | -4.98360 | -.00150 | .01090 | -.00130 | .15840 | .07680 | -.00180 | .02458 | -.00960 |
| 1.395 | 4.231 | -4.97030 | .20530 | -.02670 | .21720 | .15240 | .07090 | -.00180 | .02578 | 1.22170 |
| 1.395 | 8.495 | -4.94630 | .41100 | -.05670 | .43790 | .14660 | .06790 | .00050 | .02580 | 1.96090 |
| 1.395 | 10.645 | -4.93720 | .51230 | -.07000 | .54810 | .14440 | .06800 | .00430 | .02600 | 2.70510 |
| 1.397 | 12.794 | -4.92180 | .61020 | -.08230 | .65780 | .14100 | .06340 | -.00060 | .02340 | 2.19530 |
| 1.397 | 14.958 | -4.91220 | .70780 | -.09320 | .76980 | .13910 | .05410 | -.00010 | .02440 | 2.42530 |
| 1.395 | 17.119 | -4.94220 | .79520 | -.09370 | .87380 | .13590 | .06370 | .00430 | .02560 | 2.05640 |
| 1.395 | 21.463 | -4.94870 | .95100 | -.10120 | 1.07210 | .12790 | .04880 | .01110 | .02550 | 1.85000 |
| | GRADIENT | .00305 | .04974 | -.00984 | .05296 | -.00137 | -.00212 | .00800 | .00029 | -.29640 |

TABLATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094-OA161 ORBITER

(RE7034) (02 AUG 76)

REFERENCE DATA

SPEF = 2596.0000 SQ.FT. XMRP = 1076.6860 IN. XQ
LREF = 474.8000 IN. YMRP = .0800 IN. YO
BPEF = 925.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -2.000 ELEVON = .000
AIRLON = 10.000 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 253/ 0 RV/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|---------|---------|---------|---------|--------|--------|---------|
| .597 | .068 | -1.81290 | -.05240 | .02980 | -.05230 | .06490 | -.01920 | .00670 | .04100 | -.80810 |
| .597 | .130 | -1.81610 | .13750 | .02890 | .14200 | .05730 | -.02550 | .00669 | .04390 | 2.03520 |
| .596 | 8.349 | -1.81500 | .34100 | .02470 | .34990 | .03630 | -.02310 | .00710 | .04710 | 3.93210 |
| .597 | 10.460 | -1.80980 | .44520 | .02420 | .45680 | .02170 | -.02660 | .00680 | .04970 | 4.27070 |
| .597 | 12.586 | -1.79510 | .56220 | .02370 | .57790 | .02810 | -.02760 | .00690 | .05139 | 4.20210 |
| .598 | 14.664 | -1.77660 | .64950 | .02410 | .67250 | .01830 | -.01760 | .00410 | .04370 | 3.63780 |
| .596 | 15.798 | -1.83660 | .73590 | .02050 | .77370 | .01340 | -.01050 | .00320 | .03890 | 3.11600 |
| .596 | 21.071 | -1.83110 | .94720 | .00950 | 1.02240 | .01890 | -.00560 | .00270 | .03660 | 2.45920 |
| .596 | GRADIENT | -.00079 | .04630 | -.00022 | .04737 | -.00185 | -.00154 | .00022 | .00071 | -.69314 |

RUN NO. 250/ 0 RV/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| .921 | .064 | -1.85760 | -.05530 | .05030 | -.05920 | .09180 | -.02410 | .01160 | .03560 | -.71250 |
| .921 | 4.267 | -1.83190 | .19320 | .01900 | .19940 | .08880 | -.02030 | .01050 | .03580 | 1.85510 |
| .929 | 5.359 | -1.82600 | .39560 | .00700 | .31730 | .08900 | -.01460 | .00980 | .03300 | 2.49170 |
| .922 | 8.488 | -1.93480 | .40720 | .00800 | .42450 | .08610 | -.00650 | .00970 | .03210 | 2.75540 |
| .922 | 10.622 | -1.82270 | .49470 | .00120 | .51870 | .08730 | -.00260 | .00730 | .02910 | 2.72360 |
| .920 | 12.750 | -1.81250 | .59370 | .00240 | .61830 | .08770 | .00080 | .00570 | .03020 | 2.62880 |
| .920 | 17.871 | -1.82510 | .57550 | -.00270 | .72310 | .09120 | .00950 | .00390 | .03150 | 2.46840 |
| .920 | 17.056 | -1.82300 | .76550 | -.00450 | .82350 | .09360 | .01560 | .00490 | .03160 | 2.30030 |
| .920 | 21.349 | -1.86710 | .89970 | -.00430 | .93190 | .09370 | .02480 | .00290 | .02490 | 1.98450 |
| .920 | GRADIENT | .00617 | .00261 | -.00752 | .00079 | -.00079 | .00091 | -.00024 | -.00002 | -.64139 |

RUN NO. 242/ 0 RV/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| .920 | .062 | -1.82550 | -.06790 | .06400 | -.06780 | .13660 | -.01360 | .00970 | .05920 | -.97440 |
| .920 | 4.275 | -1.83230 | .25610 | .01310 | .24670 | .13440 | -.01010 | .00620 | .03900 | 1.37210 |
| .920 | 8.473 | -1.81140 | .46120 | -.02560 | .40620 | .13190 | -.01020 | .00710 | .03720 | 2.27510 |
| .920 | 10.610 | -1.79450 | .57470 | -.03900 | .61090 | .12840 | -.00500 | .00410 | .03480 | 2.40450 |
| .920 | 12.748 | -1.78260 | .68760 | -.04920 | .73400 | .12680 | -.00390 | .00120 | .03600 | 2.42650 |
| .920 | 14.885 | -1.82440 | .82400 | -.04940 | .84560 | .13280 | .00870 | .00110 | .03310 | 2.29530 |
| .920 | 17.183 | -1.82780 | .86400 | -.04550 | .94450 | .12960 | .01470 | .00120 | .03340 | 2.24500 |
| .920 | 21.495 | -1.87580 | .99480 | -.02370 | 1.11910 | .12680 | .04140 | .00000 | .01980 | 1.68380 |
| .920 | GRADIENT | -.00159 | .00503 | -.01208 | .00752 | -.00052 | .00083 | -.00036 | -.00003 | -.44367 |

TABLATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER

PARAMETRIC DATA

BETA = -2.086 ELEVON = .000
A1LRON = 10.000 BDFLAP = -7.170

REFERENCE DATA

SPEE = 2697.000 SO. FT. XMRP = 1076.6800 IN. X0
REF = 474.8000 IN. YMRP = .0008 IN. Y0
REF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 232/ 0 R/V/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.088 | -1.85720 | -0.4270 | .19500 | .04930 | -.04250 | .15580 | -.01090 | .00570 | .03550 | -2.7370 |
| 1.089 | -1.83350 | .22760 | .17510 | -.00600 | .24900 | .15760 | -.03920 | .06660 | .03520 | 1.30070 |
| 1.090 | -1.82420 | .46660 | .22600 | -.04120 | .48910 | .15400 | -.03120 | .09640 | .03410 | 2.08440 |
| 1.091 | -1.80080 | .57460 | .26240 | -.04940 | .61340 | .15090 | -.02210 | .00450 | .03240 | 2.18220 |
| 1.092 | -1.79840 | .59740 | .31000 | -.05780 | .73920 | .14900 | -.01430 | .03360 | .03290 | 2.21750 |
| 1.093 | -1.79300 | .59730 | .33970 | -.06630 | .86590 | .14900 | -.00220 | .02790 | .02900 | 2.15660 |
| 1.094 | -1.84230 | .93390 | .43710 | -.07480 | .99280 | .14330 | -.00220 | .02660 | .02850 | 2.08900 |
| 1.095 | -1.83150 | .90390 | .47040 | -.06740 | 1.18240 | .14580 | -.00100 | .02730 | .02830 | 1.83390 |
| 1.096 | -1.82500 | 1.04600 | .57040 | -.06740 | 1.18240 | .14580 | -.00100 | .02730 | .02830 | 1.57600 |
| 1.097 | -1.83410 | .06450 | .00480 | -.01320 | .06740 | .00062 | .00241 | -.00002 | -.00007 | |

RUN NO. 232/ 0 R/V/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| 1.098 | -1.82550 | -.02230 | .16150 | .03320 | -.03220 | .16150 | -.00070 | .00290 | .02840 | -1.3030 |
| 1.099 | -1.83560 | .22530 | .17730 | -.01930 | .23720 | .16010 | .00210 | .00120 | .02860 | 1.27110 |
| 1.100 | -1.81830 | .45990 | .22480 | -.05530 | .48720 | .15410 | .00720 | .00080 | .02890 | 2.04090 |
| 1.101 | -1.81500 | .56920 | .26160 | -.06520 | .60790 | .15120 | .01180 | .00170 | .03110 | 2.17570 |
| 1.102 | -1.80310 | .67910 | .30990 | -.07300 | .72980 | .15000 | .01030 | .00150 | .03340 | 2.19540 |
| 1.103 | -1.84110 | .77460 | .36420 | -.08000 | .84250 | .15090 | .01750 | -.00010 | .02850 | 2.12580 |
| 1.104 | -1.84720 | .82200 | .42820 | -.08720 | .96070 | .15020 | .02650 | -.00100 | .02650 | 2.03200 |
| 1.105 | -1.82630 | 1.01590 | .52510 | -.08130 | 1.14920 | .14350 | .03360 | -.00270 | .02890 | 1.82630 |
| 1.106 | -1.83690 | .05693 | .00375 | -.01247 | .05180 | -.00033 | .00067 | -.00003 | .00005 | -.36495 |

RUN NO. 229/ 0 R/V/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|--------|---------|---------|---------|--------|---------|--------|---------|
| 1.107 | -1.82730 | -.00720 | .15940 | .01410 | -.00700 | .15840 | .00750 | .00000 | .02950 | -0.4530 |
| 1.108 | -1.81110 | .19250 | .16660 | -.02440 | .21140 | .15340 | .02290 | .00290 | .02150 | 1.18570 |
| 1.109 | -1.82420 | .40620 | .20350 | -.05540 | .43270 | .14730 | .02430 | -.00100 | .02130 | 1.94910 |
| 1.110 | -1.83030 | .50740 | .24260 | -.07040 | .54360 | .14480 | .02430 | .00160 | .02130 | 2.09110 |
| 1.111 | -1.81350 | .60730 | .28370 | -.08120 | .65210 | .14290 | .02140 | -.00160 | .02150 | 2.13020 |
| 1.112 | -1.85330 | .69730 | .33090 | -.09110 | .75910 | .14010 | .00020 | .00180 | .02300 | 2.10710 |
| 1.113 | -1.84710 | .79930 | .39150 | -.09990 | .87500 | .13730 | .00550 | -.00100 | .02250 | 2.04220 |
| 1.114 | -1.82170 | .84800 | .45380 | -.09990 | 1.06900 | .13130 | .00220 | .00160 | .02160 | 1.84240 |
| 1.115 | -1.87730 | .94961 | .51380 | -.10170 | 1.06900 | .13130 | .00220 | .00160 | .02160 | 1.84240 |
| 1.116 | -1.81151 | .04961 | .00245 | -.00247 | .05242 | -.00120 | .00024 | -.00004 | .00024 | -.29495 |

(RE7035) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = 10.000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.000 SQ.FT. XMRP = 1076.8800 IN. X0'
 LREF = 47.6800 IN. YMRP = .0000 IN. Y0'
 SREF = 936.6800 IN. ZMRP = 375.0800 IN. Z0'
 SCALE = .0300

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|--------|--------|---------|
| .597 | .092 | .23530 | .06520 | .06640 | .03000 | .05510 | .06550 | -.09510 | .00830 | .03940 | -.64410 |
| .597 | 4.188 | .23290 | .13370 | .06800 | .02950 | .13630 | .05810 | -.05780 | .00930 | .04150 | 1.96420 |
| .597 | 6.258 | .24010 | .23200 | .07440 | .02780 | .29880 | .04870 | -.05980 | .00980 | .04250 | 3.11680 |
| .597 | 8.348 | .24650 | .33710 | .08630 | .02430 | .34600 | .03640 | -.09630 | .00978 | .04330 | 3.90510 |
| .597 | 10.448 | .24250 | .44810 | .10480 | .02320 | .45970 | .02180 | -.05860 | .01006 | .04470 | 4.27690 |
| .597 | 12.545 | .24140 | .55520 | .13200 | .02210 | .57060 | .00930 | -.05890 | .00970 | .04560 | 4.20580 |
| .598 | 14.657 | .25290 | .64560 | .17820 | .02200 | .69370 | .00570 | -.06040 | .00650 | .03900 | 3.62250 |
| .598 | 16.771 | .24320 | .73860 | .23550 | .01950 | .77510 | .01240 | -.04430 | .00640 | .03400 | 3.13950 |
| .598 | 21.022 | .23290 | .8650 | .38310 | .00570 | 1.02098 | .04360 | -.04360 | .00670 | .03450 | 2.47070 |
| .597 | 25.180 | .21360 | 1.04570 | .50760 | .04720 | 1.18230 | .01450 | -.04100 | .00100 | .01820 | 2.08000 |
| | GRADIENT | -.00058 | .04601 | .00063 | -.00019 | .04711 | -.06180 | -.00865 | .00024 | .00051 | -.68405 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| .900 | .040 | .21850 | -.07910 | .09200 | .05430 | -.07900 | .09200 | -.05430 | .01340 | .03410 | -.65990 |
| .900 | 4.252 | .24140 | .18110 | .10410 | .02130 | .18950 | .09048 | -.05990 | .01200 | .03410 | 1.74030 |
| .900 | 6.361 | .23800 | .30080 | .12230 | .00710 | .31250 | .08820 | -.04660 | .01130 | .03120 | 2.40050 |
| .900 | 8.488 | .23660 | .40310 | .14790 | .00200 | .42050 | .06580 | -.03690 | .00880 | .02960 | 2.72520 |
| .901 | 10.630 | .24210 | .50420 | .18310 | -.00220 | .52930 | .08780 | -.03650 | .00830 | .02840 | 2.75310 |
| .900 | 12.746 | .23800 | .58060 | .22850 | .00276 | .63540 | .09008 | -.02900 | .00520 | .02840 | 2.60800 |
| .899 | 14.882 | .25030 | .67370 | .27448 | -.00210 | .72150 | .09220 | -.02560 | .00260 | .02770 | 2.45490 |
| .900 | 17.080 | .24520 | .75540 | .32978 | -.00400 | .81980 | .09380 | -.02150 | .00830 | .02760 | 2.29460 |
| .900 | 21.292 | .23020 | .86320 | .44670 | .02550 | .96510 | .09550 | -.00290 | -.00520 | .02040 | 1.97710 |
| .899 | 25.458 | .21520 | .90310 | .53310 | .10380 | 1.04480 | .09340 | .03270 | -.01290 | .00910 | 1.68420 |
| | GRADIENT | .00544 | .06478 | .00287 | -.00784 | .06346 | -.00038 | -.00036 | -.00033 | .00000 | -.61736 |

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .980 | .052 | .23550 | -.08170 | .13780 | .07060 | -.08160 | .13780 | -.05080 | .01150 | .03710 | -.59300 |
| .979 | 4.278 | .22910 | .19800 | .15100 | .01750 | .20870 | .13580 | -.03920 | .00920 | .03590 | 1.31070 |
| .980 | 6.404 | .23920 | .33020 | .17230 | -.00520 | .34730 | .13440 | -.03820 | .00810 | .03570 | 1.91570 |
| .978 | 8.558 | .24730 | .45450 | .20160 | -.02280 | .47940 | .13170 | -.03600 | .00730 | .03420 | 2.25420 |
| .978 | 10.719 | .24190 | .57380 | .23800 | -.03850 | .60820 | .12810 | -.03310 | .00770 | .03230 | 2.40070 |
| .980 | 12.857 | .22600 | .68180 | .28370 | -.04770 | .72870 | .12870 | -.02160 | .00680 | .02980 | 2.37010 |
| .976 | 15.008 | .22660 | .77560 | .34180 | -.04930 | .83740 | .12930 | -.01110 | .00350 | .02680 | 2.26940 |
| .980 | 17.168 | .23060 | .86430 | .40540 | -.04638 | .94540 | .12600 | -.00890 | -.00860 | .02820 | 2.13200 |
| .979 | 21.448 | .21030 | .95540 | .56680 | -.06740 | 1.12000 | .12600 | .04790 | -.00990 | .01510 | 1.89140 |
| .980 | 25.624 | .19000 | 1.01600 | .62300 | .0720 | 1.18958 | .12840 | -.01200 | -.01200 | .01420 | 1.63080 |
| | GRADIENT | -.00177 | .06618 | .00312 | -.01256 | .06869 | -.00050 | -.00274 | -.00054 | -.00028 | -.45043 |

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = 10.000 BOFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-09%)
 ARC 11-97-87-09% 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.6000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300.

RUN NO. 233/ 0 RVAL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|--------|--------|---------|--------|--------|---------|
| 1.098 | .018 | .22030 | .05420 | .05260 | .15620 | .15620 | -.04530 | .00940 | .03180 | -.33760 |
| 1.098 | 4.278 | .22620 | -.00230 | .25380 | .15670 | .15670 | -.03330 | .06770 | .03140 | 1.25530 |
| 1.097 | 6.408 | .23660 | -.02120 | .36270 | .15780 | .15780 | -.03290 | .00740 | .03280 | 1.73780 |
| 1.099 | 8.563 | .24950 | -.03980 | .49230 | .15360 | .15360 | -.03040 | .00590 | .03040 | 2.06170 |
| 1.098 | 10.730 | .24670 | -.04820 | .61020 | .15090 | .15090 | -.03010 | .00540 | .02980 | 2.18190 |
| 1.097 | 12.883 | .24110 | -.05450 | .73150 | .14930 | .14930 | -.02980 | .00530 | .02920 | 2.19850 |
| 1.097 | 15.061 | .23550 | -.06170 | .85830 | .14836 | .14836 | -.02950 | .00520 | .02870 | 2.19270 |
| 1.097 | 17.232 | .22730 | -.07390 | .99110 | .14770 | .14770 | -.02910 | .00510 | .02830 | 2.04180 |
| 1.098 | 21.529 | .22730 | -.08670 | 1.13080 | .14560 | .14560 | -.02880 | .00490 | .02800 | 1.83410 |
| 1.099 | 25.732 | .22800 | -.10136 | 1.30880 | .14560 | .14560 | -.02850 | .00480 | .02770 | 1.59840 |
| 1.099 | GRADIENT | .00140 | -.06479 | .08742 | .00659 | .00659 | -.02840 | .00400 | .00000 | .37269 |

RUN NO. 233/ 0 RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|--------|--------|---------|--------|--------|---------|
| 1.199 | .047 | .22580 | .03550 | .02540 | .16240 | .16240 | -.03050 | .00530 | .02580 | 1.15680 |
| 1.200 | 4.265 | .23000 | -.01740 | .23270 | .16120 | .16120 | -.02440 | .00270 | .02570 | 1.23530 |
| 1.202 | 6.408 | .24050 | -.03940 | .36180 | .15910 | .15910 | -.02670 | .00140 | .02560 | 1.78200 |
| 1.192 | 8.563 | .24350 | -.05360 | .48480 | .15470 | .15470 | -.01428 | .00210 | .02540 | 2.02440 |
| 1.197 | 10.734 | .24300 | -.06370 | .60990 | .15080 | .15080 | -.01820 | .00220 | .02280 | 2.17350 |
| 1.197 | 12.890 | .24030 | -.07180 | .72640 | .14940 | .14940 | -.01620 | .00150 | .02220 | 2.19280 |
| 1.196 | 15.051 | .24260 | -.07790 | .83870 | .14870 | .14870 | -.01110 | .00050 | .02440 | 2.12180 |
| 1.199 | 17.219 | .23730 | -.08670 | .95390 | .14370 | .14370 | -.00900 | .00240 | .02300 | 2.03520 |
| 1.193 | 21.521 | .23200 | -.09130 | 1.14930 | .13700 | .13700 | -.00300 | .00650 | .02170 | 1.82870 |
| 1.193 | 25.740 | .23700 | -.09510 | 1.29210 | .13570 | .13570 | -.00370 | .00650 | .01770 | 1.51680 |
| 1.199 | GRADIENT | .00218 | -.01254 | .06419 | .00028 | .00028 | -.00142 | .00082 | .00002 | .38019 |

RUN NO. 228/ 0 RVAL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|--------|---------|---------|--------|--------|---------|--------|--------|---------|
| 1.022 | .008 | .21020 | .01590 | .01190 | .15810 | .15810 | -.02100 | .00200 | .01620 | -.07480 |
| 1.020 | 4.268 | .20670 | -.02320 | .21010 | .15440 | .15440 | -.00260 | .00100 | .01640 | 1.17030 |
| 1.023 | 6.407 | .20950 | -.04000 | .31980 | .15150 | .15150 | -.00910 | .00030 | .01670 | 1.51920 |
| 1.027 | 8.565 | .20940 | -.05480 | .42920 | .14770 | .14770 | -.00678 | .00110 | .01650 | 1.98260 |
| 1.026 | 10.733 | .20590 | -.06940 | .54200 | .14470 | .14470 | -.00160 | .00140 | .01640 | 2.08750 |
| 1.027 | 12.732 | .20620 | -.08350 | .65400 | .14280 | .14280 | -.00300 | .00140 | .01900 | 2.13470 |
| 1.029 | 14.942 | .21750 | -.09260 | .75980 | .14050 | .14050 | -.01300 | .00340 | .01940 | 2.10940 |
| 1.029 | 17.105 | .20670 | -.09870 | .86590 | .13710 | .13710 | -.00780 | .00280 | .01950 | 2.04110 |
| 1.035 | 21.419 | .20300 | -.10120 | 1.06470 | .13190 | .13190 | -.00860 | .00260 | .01930 | 1.84340 |
| 1.035 | 25.672 | .20370 | -.10960 | 1.24270 | .12630 | .12630 | -.01660 | .00680 | .01660 | 1.63330 |
| 1.033 | GRADIENT | .00063 | -.00931 | .05285 | .00112 | .00112 | -.00438 | .00324 | .00002 | .29546 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SPEE = 2680.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0600 IN. Y0
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AIRLON = 10.000 EBLAP = -7.370

RUN NO. 2551 0 RV/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|---------|--------|---------|---------|---------|---------|--------|--------|----------|
| .597 | .095 | 2.28910 | .05880 | .02820 | -.05820 | .06410 | -.08900 | .01110 | .06760 | -.91020 |
| .597 | 4.196 | 2.33120 | .43810 | .02650 | .13570 | .05730 | -.09640 | .01190 | .03860 | 1.95590 |
| .595 | 8.366 | 2.34230 | .02580 | .02260 | .34370 | .03620 | -.09280 | .01230 | .03940 | 3.97040 |
| .599 | 10.472 | 2.35710 | .44850 | .01930 | .46010 | .02140 | -.09680 | .01230 | .03920 | 4.28390 |
| .597 | 12.621 | 2.34840 | .92880 | .01780 | .97440 | .00730 | -.09360 | .01100 | .03300 | 4.28290 |
| .597 | 14.762 | 2.33270 | .68590 | .01640 | .80020 | .00620 | -.08770 | .01030 | .03300 | 3.466150 |
| .597 | 16.975 | 2.32700 | .75730 | .01470 | .79400 | .00840 | -.08170 | .01070 | .03310 | 3.17020 |
| .599 | 21.115 | 2.31440 | .96970 | -.00020 | 1.06440 | .01460 | -.08380 | .00020 | .03310 | 2.46480 |
| | GRADIENT | .01027 | .00073 | -.00041 | .04726 | -.00165 | -.00107 | | .00024 | .58868 |

RUN NO. 2471 0 RV/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .898 | .030 | 2.31610 | -.08820 | .02400 | -.08810 | .03160 | -.08740 | .01370 | .03340 | -.96270 |
| .899 | 4.248 | 2.33210 | .17030 | .02170 | .17740 | .08650 | -.08660 | .01350 | .03210 | 1.68030 |
| .897 | 6.375 | 2.33680 | .29600 | .00680 | .36660 | .08950 | -.08820 | .01320 | .02910 | 2.47620 |
| .895 | 8.493 | 2.33340 | .39760 | .00210 | .41460 | .08480 | -.07400 | .01080 | .02910 | 2.73970 |
| .897 | 10.635 | 2.33660 | .49010 | .00000 | .51460 | .08480 | -.06430 | .00840 | .02320 | 2.74820 |
| .900 | 12.808 | 2.32330 | .58810 | -.00120 | .62370 | .09030 | -.09510 | .00480 | .02280 | 2.59920 |
| .898 | 14.953 | 2.35370 | .67430 | -.00380 | .72210 | .09060 | -.05940 | .00090 | .02570 | 2.46120 |
| .897 | 17.139 | 2.35010 | .75850 | -.00380 | .82280 | .09170 | -.05070 | -.00220 | .02510 | 2.29920 |
| .902 | 21.397 | 2.32550 | .95270 | -.02680 | .99240 | .09730 | -.02060 | -.01500 | .01700 | 1.96280 |
| | GRADIENT | .06129 | .00232 | -.00766 | .06295 | -.00073 | .00043 | | -.00031 | .52664 |

RUN NO. 2444 0 RV/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .980 | .062 | 2.32100 | -.08980 | .02260 | -.08870 | .13970 | -.08250 | .01360 | .03470 | -.64360 |
| .978 | 4.283 | 2.34190 | .19040 | .01900 | .20110 | .13640 | -.07500 | .01030 | .03240 | 1.26850 |
| .980 | 6.576 | 2.34520 | .44900 | -.02120 | .47420 | .13380 | -.06700 | .00820 | .03140 | 2.21910 |
| .977 | 10.733 | 2.33640 | .56640 | -.03570 | .60040 | .12640 | -.06080 | .00780 | .02820 | 2.30020 |
| .976 | 12.931 | 2.31000 | .67400 | -.04470 | .72030 | .12590 | -.05010 | .00510 | .02550 | 2.37670 |
| .979 | 15.066 | 2.34640 | .77220 | -.04820 | .85450 | .12920 | -.03890 | .00390 | .02610 | 2.26000 |
| .979 | 17.270 | 2.36270 | .85940 | -.04380 | .94060 | .13080 | -.03680 | -.00570 | .02440 | 2.12830 |
| .979 | 21.527 | 2.32820 | .93120 | -.02270 | 1.11470 | .12440 | -.00010 | -.01910 | .01150 | 1.68890 |
| | GRADIENT | .00959 | .06637 | -.01270 | .06888 | -.00102 | .00178 | | -.00062 | .48291 |

(RE7035) (02 AUG 75)

TABULATED DATA - OAI61 (ARC 11-97-87-094)

ARC 11-97-87-084 OAI6A ORBITER

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = 10.000 EDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0'
LREF = 474.8000 IN. YMRP = .0000 IN. Y0'
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0'
SCALE = .03000

RUN NO. 237/ 01 RW/L = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CW | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.097 | .045 | 2.32820 | -.06940 | .15810 | .05630 | -.05930 | .15810 | -.08420 | .01800 | -.02780 | 1.37800 |
| 1.099 | 4.283 | 2.31060 | .21500 | .17820 | -.00200 | .22750 | .15940 | -.08650 | .01010 | -.02690 | 1.28170 |
| 1.098 | 8.585 | 2.33040 | .45360 | .22580 | -.05530 | .48220 | .15560 | .08840 | .08840 | -.02630 | 2.10840 |
| 1.099 | 10.754 | 2.32550 | .56740 | .26110 | -.04730 | .60620 | .15070 | -.05410 | .00570 | -.05460 | 2.17490 |
| 1.099 | 12.926 | 2.31480 | .67080 | .30730 | -.05080 | .72200 | .14880 | -.05170 | .00490 | -.02320 | 2.13320 |
| 1.097 | 15.117 | 2.30670 | .76480 | .36650 | -.05960 | .85030 | .14990 | -.05780 | .02270 | -.02530 | 2.05840 |
| 1.097 | 17.338 | 2.30160 | .89210 | .43340 | -.07040 | .98080 | .14790 | -.04580 | -.00170 | -.02420 | 1.82880 |
| 1.100 | 21.622 | 2.34450 | 1.04900 | .57350 | -.07120 | 1.18560 | .14670 | -.04290 | -.00560 | -.02390 | 1.82880 |
| | | -.00415 | .06475 | .00422 | -.01362 | .06767 | .00031 | -.00654 | -.00040 | -.00321 | -.37599 |

RUN NO. 234/ 0

RW/L = 4.27 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CW | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.198 | .050 | 2.30060 | -.03060 | .16220 | .03700 | -.05040 | .16220 | -.06120 | .00770 | -.02280 | 1.18880 |
| 1.199 | 4.270 | 2.32910 | .21530 | .17820 | -.01540 | .22800 | .16170 | -.04670 | .00470 | -.02270 | 1.20830 |
| 1.195 | 8.588 | 2.34410 | .46790 | .22540 | -.05230 | .48040 | .15540 | -.04970 | .00200 | -.02460 | 2.00430 |
| 1.195 | 10.751 | 2.33970 | .56140 | .26080 | -.06200 | .60030 | .15150 | -.04710 | .00230 | -.02210 | 2.15250 |
| 1.195 | 12.923 | 2.31970 | .67240 | .30810 | -.07140 | .72430 | .14990 | -.04730 | .00130 | -.02230 | 2.18190 |
| 1.195 | 15.105 | 2.37410 | .77090 | .36300 | -.07850 | .83890 | .14960 | -.04700 | -.00070 | -.02210 | 2.12400 |
| 1.197 | 17.328 | 2.38290 | .86580 | .42580 | -.08470 | .95310 | .14780 | -.04470 | -.00460 | -.01980 | 2.03740 |
| 1.200 | 21.612 | 2.35270 | 1.01910 | .53420 | -.08260 | 1.14790 | .14140 | -.03150 | -.01040 | -.01820 | 1.83160 |
| | | .00677 | .06841 | .00380 | -.01245 | .06138 | -.00012 | -.00344 | -.00070 | -.00002 | -.33187 |

RUN NO. 227/ 0

RW/L = 4.23 GRADIENT INTERVAL = -5.000 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CW | CBL | L/D |
|-------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.402 | .010 | 2.30820 | -.01460 | .15930 | .01620 | -.04450 | .15930 | -.04890 | .00370 | -.01650 | 1.09140 |
| 1.401 | 4.214 | 2.32120 | .15690 | .16990 | -.02380 | .20790 | .15510 | -.03590 | .00040 | -.01460 | 1.15530 |
| 1.397 | 8.508 | 2.33340 | .40340 | .21100 | -.05480 | .42970 | .14900 | -.03160 | -.00190 | -.01560 | 1.91000 |
| 1.395 | 10.663 | 2.32610 | .50550 | .24460 | -.07070 | .54240 | .14680 | -.03160 | -.00220 | -.01650 | 2.02670 |
| 1.397 | 12.834 | 2.32800 | .60650 | .28680 | -.08450 | .65520 | .14490 | -.03710 | -.00370 | -.01620 | 2.11510 |
| 1.395 | 15.008 | 2.35190 | .69990 | .34400 | -.09360 | .78250 | .14130 | -.03430 | -.00490 | -.01620 | 2.09560 |
| 1.401 | 17.223 | 2.37950 | .79170 | .38860 | -.09450 | .89190 | .14040 | -.03040 | -.00720 | -.01590 | 2.03190 |
| 1.401 | 21.517 | 2.34090 | .94400 | .51440 | -.10180 | 1.06770 | .13290 | -.02530 | -.01180 | -.01600 | 1.83670 |
| 1.397 | | .00309 | .00262 | .00262 | -.00262 | .00269 | -.00100 | -.00309 | -.00078 | -.00002 | -.29603 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 3792.0008 IN. ZO
SCALE = .0300

BETA = .000 ELEVON = .000
AFLRON = 10.000 SOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 256/ 0 RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|---------|--------|--------|---------|---------|---------|---------|--------|---------|---------|
| .598 | .108 | 5.38070 | .09228 | .06150 | .02130 | .05210 | .06150 | -.14410 | .01570 | .03690 | -.84880 |
| .598 | 4.211 | 5.40400 | .13450 | .08450 | .02000 | .13888 | .05440 | -.14400 | .01630 | .03500 | 2.08540 |
| .598 | 8.399 | 5.41850 | .34058 | .08540 | .01700 | .34940 | .03480 | -.14780 | .01670 | .03450 | 3.98860 |
| .597 | 10.508 | 5.41650 | .44830 | .10310 | .01430 | .45860 | .01870 | -.14730 | .01630 | .03260 | 4.34660 |
| .597 | 12.631 | 5.41350 | .56150 | .13130 | .01188 | .57660 | .00540 | -.14650 | .01600 | .03120 | 4.27560 |
| .597 | 14.753 | 5.41020 | .68840 | .17870 | .00740 | .69130 | .00040 | -.14090 | .01530 | .02940 | 3.78840 |
| .597 | 16.861 | 5.40900 | .78440 | .23400 | .00610 | .79890 | .00220 | -.13890 | .01490 | .02550 | 3.26650 |
| .596 | 21.074 | 5.41790 | .95040 | .37310 | -.00400 | 1.02100 | .00640 | -.14440 | .01640 | .02620 | 2.54730 |
| | GRADIENT | .00588 | .04550 | .00073 | -.00032 | .04662 | -.00175 | .00002 | .08029 | -.00924 | .71510 |

RUN NO. 246/ 0 RVL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| .800 | .059 | 5.40050 | -.09410 | .09300 | .05250 | -.09400 | .09310 | -.14940 | .01820 | .03100 | -1.01160 |
| .899 | 4.282 | 5.43190 | .16320 | .10070 | .01950 | .17030 | .08830 | -.14160 | .01840 | .02930 | 1.62078 |
| .901 | 6.396 | 5.42810 | .29330 | .12660 | .00938 | .30510 | .06940 | -.13190 | .01620 | .02630 | 2.39280 |
| .899 | 8.522 | 5.43570 | .39750 | .14730 | -.00170 | .41500 | .06670 | -.12920 | .01400 | .02290 | 2.69980 |
| .899 | 10.674 | 5.42290 | .49420 | .18060 | -.00310 | .51520 | .06550 | -.12610 | .01040 | .01870 | 2.71970 |
| .898 | 12.799 | 5.42570 | .57840 | .22040 | -.00670 | .61280 | .06550 | -.11490 | .00628 | .01630 | 2.62790 |
| .900 | 14.943 | 5.43870 | .67330 | .27310 | -.01130 | .72090 | .09080 | -.11120 | .00150 | .02103 | 2.46570 |
| .898 | 17.078 | 5.46120 | .75450 | .32670 | -.00640 | .81720 | .09080 | -.10520 | -.00530 | .01920 | 2.30920 |
| .899 | 21.358 | 5.46310 | .88200 | .43960 | .03110 | .98160 | .08828 | -.07110 | -.01930 | .01220 | 2.00540 |
| | GRADIENT | .00747 | .05121 | .00183 | -.00783 | .05286 | -.00114 | .00178 | .00005 | -.00064 | .62523 |

RUN NO. 245/ 0 RVL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| .979 | .053 | 5.40930 | -.09928 | .14010 | .06970 | -.09910 | .14020 | -.14110 | .01870 | .03100 | -1.70810 |
| .981 | 4.292 | 5.42730 | .18110 | .14980 | .01980 | .19180 | .13598 | -.12830 | .01570 | .02570 | 1.20860 |
| .976 | 8.581 | 5.42550 | .43520 | .19680 | -.01730 | .45870 | .12970 | -.11730 | .01310 | .02488 | 2.21150 |
| .978 | 10.755 | 5.40110 | .58580 | .23360 | -.03300 | .58970 | .12588 | -.10880 | .01190 | .02280 | 2.37910 |
| .981 | 12.907 | 5.40970 | .66580 | .28710 | -.04150 | .71410 | .13098 | -.10290 | .00650 | .01960 | 2.32310 |
| .982 | 15.053 | 5.44750 | .75870 | .33480 | -.04260 | .81960 | .12630 | -.09810 | .00210 | .01830 | 2.26590 |
| .979 | 17.205 | 5.45630 | .86040 | .39650 | -.04110 | .92960 | .12720 | -.08590 | -.00720 | .01710 | 2.14480 |
| .983 | 21.505 | 5.45980 | 1.00120 | .52750 | -.02710 | 1.12490 | .12390 | -.05130 | -.02288 | .00350 | 1.89750 |
| | GRADIENT | .00425 | .06524 | .00228 | -.01178 | .06874 | -.00102 | .00302 | -.00071 | -.00125 | .45292 |

TABULATED DATA - 0A161 (ARC 11-97-87-09#)
ARC 11-97-87-09# 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALLFRON = 10.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0008 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0800 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|--------|---------|---------|---------|---------|
| 1.100 | .071 | 5.39930 | -.06090 | .05160 | -.05070 | .15970 | -.13298 | .01680 | -.02190 | -.38390 |
| 1.100 | 4.304 | 5.43590 | 21240 | -.09470 | .22510 | .16970 | -.12030 | .01370 | .02090 | 1.19880 |
| 1.097 | 8.603 | 5.43090 | 44720 | -.03330 | 47640 | .15920 | -.11300 | .01160 | .01930 | 1.96560 |
| 1.098 | 10.782 | 5.44110 | 56470 | -.04660 | 60410 | .15480 | -.10690 | .00900 | .01780 | 2.13690 |
| 1.096 | 12.931 | 5.44090 | 66510 | -.05010 | 71700 | .15060 | -.09960 | .00660 | .01750 | 2.16528 |
| 1.096 | 15.088 | 5.44150 | 76340 | -.05460 | 83280 | .14870 | -.09570 | .00260 | .01700 | 2.12370 |
| 1.089 | 17.257 | 5.46370 | 86740 | -.06150 | 96320 | .14460 | -.08670 | -.00460 | .01690 | 2.06070 |
| 1.108 | 21.569 | 5.48500 | 1.04040 | -.07150 | 1.17610 | .14500 | -.07430 | -.01640 | .01620 | 1.83420 |
| 1.108 | GRADIENT | .00953 | .00456 | -.01330 | .06751 | .00047 | .00298 | -.00073 | -.00033 | .37386 |

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.197 | .076 | 5.43020 | -.03530 | .03640 | -.03500 | .16190 | -.12260 | .01240 | -.01980 | -.21780 |
| 1.198 | 4.288 | 5.42440 | 20790 | -.01360 | .22040 | .19930 | -.09780 | .00840 | .01840 | 1.18670 |
| 1.194 | 8.600 | 5.43350 | 44620 | -.04860 | 47470 | .15320 | -.09480 | .00360 | .01630 | 1.98840 |
| 1.198 | 10.777 | 5.42010 | 55560 | -.05950 | 59460 | .15260 | -.09600 | .00270 | .01680 | 2.12820 |
| 1.195 | 12.924 | 5.43270 | 65930 | -.06800 | 71080 | .14980 | -.10010 | .00200 | .01620 | 2.16110 |
| 1.195 | 15.089 | 5.44150 | 76360 | -.07470 | 83030 | .14650 | -.09050 | -.00300 | .01590 | 2.13510 |
| 1.197 | 17.248 | 5.48020 | 86200 | -.08020 | 93710 | .14470 | -.08790 | -.00800 | .01520 | 2.04800 |
| 1.197 | 21.568 | 5.50130 | 1.01750 | -.08750 | 1.14930 | .13940 | -.07360 | -.01930 | .01590 | 1.84290 |
| 1.197 | GRADIENT | -.00138 | .05774 | -.01187 | .06064 | -.00062 | .00589 | -.00009 | -.00009 | .33323 |

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.400 | .048 | 5.43790 | -.01660 | .01470 | -.01650 | .15940 | -.11310 | .00630 | -.01380 | -.10430 |
| 1.400 | 4.241 | 5.44000 | 19220 | -.02490 | .20420 | .14998 | -.09120 | .00220 | .01160 | 1.13360 |
| 1.396 | 8.520 | 5.43910 | 39910 | -.05910 | 42600 | .14960 | -.07370 | -.00190 | .01160 | 1.89060 |
| 1.397 | 10.695 | 5.40870 | 50160 | -.06950 | 53820 | .14680 | -.06830 | -.00090 | .01090 | 2.05430 |
| 1.397 | 12.837 | 5.44610 | 60060 | -.08240 | 64870 | .14370 | -.06440 | -.00530 | .01120 | 2.11280 |
| 1.398 | 14.993 | 5.43750 | 69080 | -.09080 | 75270 | .14020 | -.07210 | -.00640 | .01150 | 2.09210 |
| 1.397 | 17.154 | 5.47310 | 77970 | -.09650 | 86830 | .13680 | -.06980 | -.01140 | .01210 | 2.03080 |
| 1.399 | 21.474 | 5.50090 | 93960 | -.10230 | 1.06080 | .12980 | -.06490 | -.02150 | .01270 | 1.84520 |
| 1.399 | GRADIENT | .00050 | .04979 | -.00923 | .05263 | -.00107 | .00522 | -.00098 | -.00052 | .29519 |

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TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XREFP = 1076.6800 IN. XO
LREF = 474.8000 IN. YREFP = .0000 IN. YO
BREF = 936.6800 IN. ZREFP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = -8.000 ELEVON = .000
AILIRON = .000 BOFLAP = -7.170

263/ 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|--------|---------|---------|---------|--------|---------|--------|---------|
| .300 | 1.211 | -7.94770 | .01586 | .04298 | .01530 | .01670 | .04268 | .13260 | .09330 | .00680 | .36830 |
| .299 | 2.173 | -7.89910 | .05380 | .04270 | .01620 | .05940 | .04060 | .13298 | .09360 | .00780 | 1.26060 |
| .298 | 4.172 | -7.89830 | .14060 | .04350 | .01660 | .14350 | .03598 | .13380 | .09350 | .00960 | 3.03670 |
| .299 | 6.182 | -7.89550 | .23410 | .05300 | .01590 | .23950 | .02750 | .13700 | .09370 | .01130 | 4.41370 |
| .299 | 8.230 | -7.88280 | .32590 | .06340 | .01608 | .33160 | .01610 | .13160 | .09360 | .01390 | 5.14240 |
| .298 | 10.271 | -7.87150 | .42190 | .07940 | .01560 | .42920 | .00260 | .13048 | .09350 | .01750 | 5.33410 |
| .299 | 12.315 | -7.85480 | .52310 | .09950 | .01140 | .53230 | -.01430 | .12820 | .09300 | .02040 | 5.25480 |
| .299 | 14.372 | -7.83470 | .62430 | .12770 | .00690 | .63640 | -.03120 | .12460 | .09350 | .02270 | 4.88730 |
| .289 | 16.471 | -7.80970 | .68990 | .16480 | -.00320 | .74560 | -.04790 | .12460 | .09350 | .02490 | 4.42260 |
| .289 | 18.528 | -7.78220 | .93870 | .21330 | -.00760 | .86420 | -.05360 | .12710 | .09250 | .02490 | 3.93810 |
| .289 | 20.528 | -7.74820 | 1.03300 | .26940 | -.01120 | .97350 | -.07590 | .12640 | .09250 | .02700 | 3.48460 |
| .289 | 22.569 | -7.70940 | 1.13440 | .33530 | -.01240 | 1.08250 | -.08890 | .12650 | .09250 | .02570 | 3.08100 |
| .289 | 24.623 | -7.66540 | 1.15450 | .41790 | -.01120 | 1.20540 | -.09270 | .13370 | .09850 | .02570 | 2.71450 |
| .289 | 25.643 | -7.61550 | .04235 | .45560 | -.00040 | 1.23800 | -.08890 | .12060 | .09870 | .02730 | 2.53430 |
| GRADIENT | | .01422 | | .00125 | | -.04303 | -.00228 | .00091 | -.00005 | .00094 | .89935 |

264/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| .597 | 1.231 | -8.00730 | .00888 | .04488 | .02210 | .00980 | .04460 | .14020 | .01080 | .00670 | .19700 |
| .596 | 2.205 | -7.96530 | .05350 | .04570 | .02150 | .05520 | .04360 | .13930 | .01100 | .00770 | 1.17040 |
| .596 | 4.240 | -7.93370 | .14800 | .04940 | .02150 | .15130 | .03840 | .14000 | .01130 | .00970 | 2.99360 |
| .597 | 6.303 | -7.91560 | .24630 | .05760 | .02010 | .25120 | .03020 | .13830 | .01140 | .01230 | 4.27600 |
| .596 | 8.386 | -7.90070 | .35010 | .07080 | .01970 | .35870 | .01980 | .13310 | .01100 | .01560 | 4.94600 |
| .597 | 10.476 | -7.88260 | .46080 | .08940 | .01550 | .46930 | .00360 | .13290 | .01200 | .01930 | 5.17440 |
| .597 | 12.577 | -7.85950 | .57900 | .11860 | .00960 | .59100 | -.01038 | .13280 | .01220 | .02200 | 4.88110 |
| .596 | 14.666 | -7.83180 | .68170 | .15950 | .00560 | .70140 | -.01280 | .13740 | .01340 | .01850 | 4.12010 |
| .597 | 16.778 | -7.79320 | .77260 | .22340 | .00210 | .80420 | -.00920 | .13710 | .01450 | .01730 | 3.45910 |
| .595 | 18.884 | -7.74970 | .86820 | .29540 | -.00670 | .91700 | -.00150 | .14810 | .01398 | .01770 | 2.93920 |
| .597 | 20.989 | -7.70340 | .95380 | .36118 | -.00610 | 1.01990 | .00450 | .13830 | .01150 | .01160 | 2.40940 |
| .597 | 23.075 | -7.65480 | 1.04300 | .43290 | -.00420 | 1.12920 | -.01050 | .14930 | .00810 | .00900 | 2.19650 |
| .596 | 25.131 | -7.60280 | 1.07710 | .49040 | .01480 | 1.18340 | -.01360 | .14630 | .00470 | .02050 | 2.08190 |
| .597 | 26.132 | -7.54740 | 1.04170 | .50040 | .04780 | 1.15560 | -.00960 | .12238 | .00470 | .00099 | .92184 |
| GRADIENT | | .00928 | | .00157 | | .04693 | -.00213 | -.00000 | -.00016 | | |

TABLATED DATA - OA16J (ARC 11-97-87-084)
ARC 11-97-87-084 OA16J ORBITER + PROBES

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000. BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN. NO. 262/ 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|--------|---------|---------|--------|---------|--------|---------|
| .299 | 1.154 | -4.91090 | .00240 | .04640 | .02140 | .00330 | .04830 | .08700 | -.00650 | .00460 | .05130 |
| .299 | 2.157 | -4.90100 | .04500 | .04590 | .02270 | .04870 | .04410 | .08880 | -.00640 | .00480 | .98210 |
| .299 | 4.135 | -4.91230 | .13240 | .04900 | .02250 | .13550 | .03930 | .08850 | -.00600 | .00600 | 2.70340 |
| .299 | 6.165 | -4.90710 | .22560 | .06520 | .02090 | .23030 | .03160 | .08260 | -.00590 | .00700 | 4.01550 |
| .299 | 8.203 | -4.90440 | .31748 | .06530 | .02070 | .32350 | .01930 | .08680 | -.00600 | .00870 | 4.96070 |
| .299 | 10.263 | -4.89420 | .41430 | .08020 | .02040 | .42200 | .00510 | .08650 | -.00570 | .01140 | 5.16510 |
| .298 | 12.320 | -4.85770 | .51100 | .09220 | .02050 | .52040 | -.01210 | .08420 | -.00540 | .01420 | 5.15230 |
| .298 | 14.368 | -4.83150 | .60890 | .12620 | .02120 | .62120 | -.02880 | .08150 | -.00600 | .01500 | 4.82400 |
| .299 | 16.404 | -4.82860 | .70120 | .16240 | .01760 | .72880 | -.04530 | .08070 | -.00590 | .01520 | 4.39480 |
| .299 | 18.473 | -4.86400 | .82580 | .21120 | .01020 | .85020 | -.05140 | .08320 | -.00610 | .01620 | 3.91050 |
| .299 | 20.538 | -4.87620 | .92820 | .26540 | .00610 | .96270 | -.07610 | .08320 | -.00570 | .01850 | 3.48350 |
| .299 | 22.584 | -4.88070 | 1.02120 | .33140 | .00240 | 1.07020 | -.08620 | .08320 | -.00230 | .01850 | 3.08150 |
| .299 | 24.637 | -4.87430 | 1.09150 | .40610 | .00170 | 1.16150 | -.08590 | .07660 | -.00370 | .01760 | 2.68760 |
| .299 | 25.658 | -4.86300 | 1.12746 | .44910 | .00140 | 1.21070 | -.08340 | .07660 | -.00440 | .01760 | 2.51060 |
| .300 | GRADIENT | -.03123 | .04353 | .00097 | .00030 | .04440 | -.00236 | .00041 | -.00017 | .00049 | .88563 |

RUN. NO. 265/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|---------|--------|---------|---------|---------|--------|---------|--------|---------|
| .595 | 1.137 | -4.93370 | .00220 | .04900 | .02729 | .00320 | .04890 | .08768 | -.00750 | .00460 | .04570 |
| .595 | 2.166 | -4.93560 | .05030 | .04910 | .02700 | .05210 | .04720 | .08800 | -.00750 | .00540 | 1.02380 |
| .596 | 4.201 | -4.93940 | .14290 | .05210 | .02660 | .14630 | .04140 | .08820 | -.00710 | .00610 | 2.74510 |
| .596 | 6.358 | -4.93030 | .24490 | .06010 | .02390 | .25000 | .03300 | .08380 | -.00680 | .00690 | 4.07560 |
| .596 | 8.463 | -4.92160 | .34880 | .07200 | .02260 | .35550 | .02050 | .08570 | -.00750 | .00990 | 4.84550 |
| .596 | 10.463 | -4.89490 | .46680 | .09010 | .02060 | .46540 | .00570 | .08280 | -.00740 | .01280 | 5.06770 |
| .597 | 12.572 | -4.86490 | .57150 | .11820 | .01800 | .58350 | -.00900 | .08300 | -.00690 | .01480 | 4.83480 |
| .597 | 14.669 | -4.87590 | .66760 | .16490 | .01490 | .69768 | -.00960 | .08300 | -.00680 | .01060 | 4.48490 |
| .598 | 16.764 | -4.87860 | .76070 | .22360 | .01690 | .79290 | -.00530 | .08400 | -.00680 | .00920 | 3.40150 |
| .597 | 18.883 | -4.90430 | .85810 | .29510 | .00140 | .90750 | -.00150 | .09260 | -.00650 | .00950 | 2.90760 |
| .597 | 20.994 | -4.90880 | .94810 | .36370 | .00140 | 1.01540 | -.00010 | .09770 | -.00700 | .00700 | 2.60698 |
| .597 | 23.086 | -4.90700 | 1.03140 | .43300 | .00260 | 1.11860 | .00610 | .10370 | -.00700 | .00430 | 2.39190 |
| .597 | 25.166 | -4.89960 | 1.08590 | .50980 | .00120 | 1.19620 | -.00280 | .10960 | -.00580 | .00010 | 2.17450 |
| .598 | 26.161 | -4.87530 | 1.04420 | .50980 | .05060 | 1.16200 | -.00280 | .08220 | -.00370 | .01100 | 2.04810 |
| .598 | GRADIENT | -.04144 | .04569 | .00109 | -.00020 | .04665 | -.00250 | .00018 | -.00014 | .00047 | .87608 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO:
LREF = 474.8800 IN. YMRP = .0000 IN. YO:
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO:
SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|----------|---------|--------|--------|---------|--------|--------|---------|--------|---------|
| .299 | 1.120 | -1.85800 | .00050 | .04940 | .02410 | .00050 | .04940 | .03990 | -.00250 | .00140 | -.00960 |
| .300 | 2.103 | -1.85380 | .04090 | .04950 | .02440 | .04270 | .04808 | .03740 | -.00260 | .00160 | .82510 |
| .300 | 4.110 | -1.84430 | .12770 | .05130 | .02310 | .13110 | .04230 | .03820 | -.00230 | .00200 | 2.48970 |
| .300 | 6.148 | -1.83440 | .21920 | .05740 | .02400 | .22410 | .03360 | .03620 | -.00230 | .00240 | 3.81960 |
| .300 | 8.178 | -1.84120 | .31500 | .06590 | .02290 | .32130 | .02140 | .03430 | -.00250 | .00330 | 4.70750 |
| .299 | 10.234 | -1.84360 | .41070 | .08160 | .02900 | .41870 | .00730 | .03820 | -.00260 | .00490 | 5.03270 |
| .300 | 12.306 | -1.84210 | .50510 | .10100 | .02400 | .51600 | .00920 | .03640 | -.00300 | .00630 | 5.01070 |
| .300 | 14.351 | -1.77230 | .59850 | .12710 | .02500 | .61130 | .02220 | .03290 | -.00340 | .00780 | 4.79770 |
| .299 | 16.419 | -1.83190 | .70950 | .16466 | .02040 | .72720 | .04270 | .03610 | -.00330 | .00780 | 4.31190 |
| .300 | 18.491 | -1.84350 | .81760 | .21130 | .01390 | .84240 | .05698 | .03510 | -.00290 | .00720 | 3.86900 |
| .299 | 20.571 | -1.84770 | .92360 | .26760 | .01050 | .95870 | .07400 | .03750 | -.00250 | .00680 | 3.45180 |
| .299 | 22.611 | -1.84190 | 1.01790 | .33170 | .00640 | 1.06720 | .08520 | .03380 | -.00170 | .00680 | 3.06880 |
| .299 | 24.655 | -1.82280 | 1.08810 | .40830 | .01050 | 1.15740 | .08500 | .02810 | -.00040 | .00900 | 2.65030 |
| .299 | 25.657 | -1.80860 | 1.11200 | .44560 | .01100 | 1.19930 | .08000 | .02710 | .00040 | .00810 | 2.49530 |
| | | .00853 | .04294 | .00067 | .00034 | .04374 | .00255 | .00043 | .09008 | .00020 | .83504 |

RUN NO. 2661 0 RVAL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|----------|---------|--------|---------|---------|--------|--------|---------|--------|---------|
| .595 | 1.098 | -1.85260 | .00480 | .05100 | .03010 | .00390 | .05100 | .03430 | -.00330 | .00150 | -.09340 |
| .596 | 2.127 | -1.85900 | .04310 | .05130 | .02970 | .04500 | .04970 | .03540 | -.00310 | .00160 | 8.4020 |
| .596 | 4.174 | -1.84390 | .13770 | .05450 | .02920 | .14130 | .04430 | .03360 | -.00280 | .00200 | 2.52690 |
| .596 | 6.254 | -1.84280 | .25880 | .06070 | .02720 | .24400 | .03430 | .03540 | -.00270 | .00250 | 3.93640 |
| .597 | 8.333 | -1.84580 | .34260 | .06720 | .02380 | .34950 | .02170 | .03560 | -.00290 | .00330 | 4.74870 |
| .596 | 10.439 | -1.84040 | .45800 | .09030 | .02180 | .45898 | .00720 | .03420 | -.00320 | .00550 | 4.98610 |
| .596 | 12.555 | -1.83260 | .56200 | .11830 | .02010 | .57430 | .00570 | .03490 | -.00300 | .00410 | 4.73220 |
| .597 | 14.645 | -1.79990 | .65550 | .16470 | .02010 | .67580 | .00640 | .03818 | -.00370 | .00410 | 3.98110 |
| .597 | 16.777 | -1.86040 | .75070 | .22330 | .01500 | .78320 | .00290 | .04198 | -.00470 | .00360 | 3.35130 |
| .597 | 18.904 | -1.86340 | .84976 | .29510 | .00698 | .89940 | .00390 | .04300 | -.00370 | .00260 | 2.87950 |
| .597 | 21.035 | -1.85660 | .96330 | .37140 | .00180 | 1.02310 | .00450 | .04680 | -.00200 | .00020 | 2.56690 |
| .597 | 23.120 | -1.84690 | 1.04410 | .44620 | .00540 | 1.13540 | .00040 | .05050 | -.00280 | .00040 | 2.34600 |
| .597 | 25.187 | -1.81620 | 1.08070 | .50790 | .03090 | 1.19410 | .00030 | .04430 | -.00220 | .00120 | 2.12780 |
| .597 | 26.172 | -1.80260 | 1.03520 | .51260 | .06240 | 1.19520 | .00330 | .04080 | -.00190 | .00350 | 2.01930 |
| | | .00347 | .04628 | .00120 | -.00028 | .04712 | .00224 | .00025 | .00016 | .00017 | .84801 |

RUN NO. 2661 0 RVAL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

(RE7041) (02 AUG 76

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALTRON = .000 BOFLAP = -7.178

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN. NO. 2674 0 RW/L = 3.96 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|---------|---------|---------|---------|---------|--------|---------|---------|---------|
| .299 | 1.084 | -.01020 | -.04950 | -.02560 | -.00930 | .04950 | .00610 | -.00040 | -.00010 | -.20640 |
| .299 | 2.096 | .03600 | .05110 | .02650 | .03780 | .04880 | .00730 | -.00030 | .00010 | .71760 |
| .298 | 4.109 | .12320 | .05180 | .02710 | .12660 | .04280 | .00690 | -.00030 | .00000 | 2.37990 |
| .299 | 6.136 | .21490 | .05800 | .02590 | .21990 | .03470 | .00260 | -.00070 | .00000 | 3.70400 |
| .299 | 8.176 | .22280 | .06700 | .02440 | .31780 | .02200 | .00330 | -.00050 | .00030 | 4.64770 |
| .298 | 10.218 | .22210 | .09080 | .02310 | .41790 | .00790 | .00610 | -.00050 | .00050 | 5.00090 |
| .298 | 12.260 | .22360 | .10070 | .02540 | .51070 | -.00790 | .00508 | -.00050 | .00080 | 4.97380 |
| .298 | 14.305 | .23840 | .12690 | .02630 | .61080 | -.02480 | .00640 | -.00060 | .00140 | 4.71170 |
| .298 | 16.375 | .24200 | .16370 | .02260 | .84450 | -.04180 | .00680 | -.00070 | .00210 | 4.30790 |
| .298 | 18.445 | .25030 | .21200 | .01520 | .96450 | -.07340 | .00690 | -.00060 | .00060 | 3.86520 |
| .298 | 20.528 | .25320 | .26950 | .01280 | .96450 | -.08470 | .00688 | -.00040 | .00080 | 3.44680 |
| .299 | 22.576 | .25020 | .32980 | .00920 | 1.06300 | -.08730 | .00660 | -.00010 | .00080 | 3.07440 |
| .299 | 24.627 | .25680 | .39850 | .01390 | 1.14670 | -.07960 | .00190 | -.00040 | .00110 | 2.70750 |
| .299 | 25.648 | .25680 | .44430 | .01340 | 1.19220 | -.07960 | .00190 | -.00100 | .00110 | 2.49670 |
| .299 | GRADIENT | .00418 | .00077 | .00047 | -.04980 | -.00235 | .00020 | .00003 | -.00002 | .85068 |

RUN. NO. 2674 0 RW/L = 4.19 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEL | L/D |
|------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .595 | 1.090 | .00930 | .05180 | .03140 | -.00730 | .05200 | .00150 | -.00080 | .00000 | -.15990 |
| .596 | 2.124 | .03900 | .05240 | .03160 | .04098 | .05098 | .00460 | -.00040 | -.00020 | .74490 |
| .595 | 4.175 | .13380 | .06130 | .03130 | .13740 | .04480 | .00130 | -.00070 | .00000 | 2.44540 |
| .595 | 6.246 | .23440 | .06130 | .02900 | .23970 | .03550 | .00480 | -.00050 | .00010 | 3.82230 |
| .596 | 8.336 | .34170 | .07310 | .02530 | .34870 | .02280 | .00550 | -.00060 | .00050 | 4.67540 |
| .597 | 10.429 | .45060 | .09070 | .02280 | .45950 | .00770 | .00510 | -.00060 | .00070 | 4.96670 |
| .597 | 12.522 | .55900 | .11790 | .02370 | .57030 | .00590 | .00510 | -.00020 | .00100 | 4.73370 |
| .597 | 14.632 | .65330 | .16530 | .02800 | .67390 | -.00610 | .00960 | -.00030 | .00120 | 3.95240 |
| .597 | 16.750 | .74860 | .22690 | .01840 | .78100 | -.02230 | .00800 | -.00170 | -.00140 | 3.35810 |
| .598 | 18.863 | .84700 | .29310 | .01000 | .89620 | .00350 | .00730 | -.00090 | -.00230 | 2.89010 |
| .598 | 21.001 | .96300 | .37430 | .00140 | 1.00440 | .00440 | .01090 | -.00070 | -.00300 | 2.57240 |
| .597 | 23.099 | 1.06960 | .45450 | .00180 | 1.18850 | .00000 | .01490 | -.00170 | -.00170 | 2.34450 |
| .595 | 25.164 | 1.08860 | .51100 | .00040 | 1.20260 | -.00040 | .01290 | -.00130 | -.00280 | 2.13020 |
| .598 | 26.150 | 1.02920 | .51050 | .06630 | 1.14880 | .00460 | .01140 | -.00180 | -.00260 | 2.01630 |
| .598 | GRADIENT | .00336 | .00097 | -.00005 | .04693 | -.00242 | -.00028 | .00001 | .00001 | .84244 |

(RET042) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRON = .000 BBFLAP = -7.170

TABULATED DATA - OAL161 (ARC 11-97-87-094)
ARC 11-97-87-094 OAL161 ORBITER + PROGES.

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 373.0000 IN. Z0
SCALE = .0300

RUN NO. 259/ 0 RNV/L = 3.96 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|--------|---------|---------|---------|--------|---------|---------|
| .298 | 1.090 | 2.24970 | .01100 | .04910 | .02530 | .01010 | .04650 | -.02900 | .00160 | -.00190 | -.22450 |
| .298 | 2.101 | 2.25250 | .03450 | .04970 | .02550 | .03630 | .04840 | -.02850 | .00150 | -.00240 | .69330 |
| .298 | 4.112 | 2.27070 | .12210 | .05120 | .02540 | .12540 | .04230 | -.02710 | .00170 | -.00270 | 2.38280 |
| .298 | 6.142 | 2.28260 | .21548 | .05740 | .02470 | .22030 | .03400 | -.02630 | .00140 | -.00280 | 3.75540 |
| .297 | 8.189 | 2.29000 | .31010 | .06680 | .02270 | .31640 | .02190 | -.02480 | .00190 | -.00350 | 4.64410 |
| .297 | 10.247 | 2.30890 | .40960 | .08110 | .02050 | .41710 | .01700 | -.02350 | .00130 | -.00410 | 5.04680 |
| .297 | 12.350 | 2.31170 | .50390 | .10080 | .01800 | .51380 | .01300 | -.02440 | .00140 | -.00520 | 5.00080 |
| .297 | 14.456 | 2.25970 | .60730 | .12940 | .01600 | .62040 | .00930 | -.02270 | .00060 | -.00370 | 4.28480 |
| .298 | 16.531 | 2.24840 | .71000 | .16570 | .01470 | .72780 | .00430 | -.02710 | .00040 | -.00330 | 3.85400 |
| .298 | 18.579 | 2.23910 | .81950 | .21270 | .01470 | .84500 | .00240 | -.02440 | .00090 | -.00510 | 3.44910 |
| .299 | 20.625 | 2.23420 | .91770 | .26620 | .01180 | .96270 | .00740 | -.02590 | .00060 | -.00540 | 3.05470 |
| .299 | 22.661 | 2.24480 | 1.01610 | .33330 | .00760 | 1.06800 | .01470 | -.02130 | .00050 | -.00670 | 2.68630 |
| .299 | 24.686 | 2.26980 | 1.09100 | .40610 | .01040 | 1.16090 | .01870 | -.02440 | .00200 | -.00470 | 2.48000 |
| .299 | 25.692 | 2.28240 | 1.11330 | .44890 | .01110 | 1.19780 | .01780 | -.02440 | .00004 | -.00425 | .05957 |
| | GRADIENT | .00725 | .04397 | .00070 | .00002 | .04476 | -.00242 | .00064 | | | |

RUN NO. 271/ 0 RNV/L = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .597 | 1.121 | 2.25250 | -.00750 | .05170 | .03000 | .00650 | .05190 | -.03240 | .00160 | -.00190 | -.14530 |
| .597 | 2.132 | 2.27630 | .03730 | .05210 | .03030 | .03930 | .05070 | -.03090 | .00190 | -.00220 | .71610 |
| .598 | 4.187 | 2.29490 | .13460 | .05530 | .02970 | .13830 | .04530 | -.03190 | .00140 | -.00260 | 2.45520 |
| .597 | 6.266 | 2.30040 | .23670 | .06160 | .02720 | .24200 | .03540 | -.02780 | .00160 | -.00290 | 3.83980 |
| .595 | 8.356 | 2.29710 | .34070 | .07330 | .02340 | .34770 | .02300 | -.02740 | .00190 | -.00310 | 4.64850 |
| .596 | 10.458 | 2.31080 | .45040 | .09160 | .02110 | .45960 | .00830 | -.02630 | .00230 | -.00440 | 4.91980 |
| .595 | 12.613 | 2.30740 | .56450 | .12030 | .01950 | .57710 | -.00590 | -.02560 | .00220 | -.00490 | 4.69300 |
| .597 | 14.746 | 2.28030 | .65750 | .16790 | .01980 | .67860 | -.00500 | -.02520 | .00080 | -.00510 | 3.91620 |
| .596 | 16.890 | 2.26860 | .75654 | .22740 | .01640 | .79900 | -.00220 | -.02510 | .00080 | -.00450 | 3.32650 |
| .596 | 19.004 | 2.28270 | .86170 | .30020 | .00720 | .91250 | .00330 | -.02830 | .00130 | -.00340 | 2.87010 |
| .598 | 21.104 | 2.27580 | .96740 | .37590 | -.00720 | 1.03790 | .00240 | -.02820 | .00170 | -.00370 | 2.57350 |
| .593 | 23.192 | 2.28400 | 1.08010 | .46110 | -.00160 | 1.17440 | -.00150 | -.02820 | .00160 | -.00640 | 2.34240 |
| .597 | 25.233 | 2.30240 | 1.09030 | .51250 | .03050 | 1.20480 | -.00120 | -.02320 | .00000 | -.00640 | 2.12740 |
| .596 | 26.292 | 2.30570 | 1.08150 | .51170 | .06400 | 1.15140 | .00370 | -.01370 | -.00170 | -.01020 | 2.01580 |
| | GRADIENT | .01313 | .04649 | .00013 | .00002 | .04736 | -.00222 | .00007 | | | |

TABULATED DATA - 0A161 (ARC 11-97-87-054)
ARC 11-97-87-054 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = 0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = 0.0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = 0.000
ALLRON = 0.000 BDFLAP = -7.170

RUN NO. 258 / 0 RVAL = 3.94 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|--------|---------|---------|---------|---------|---------|---------|
| .297 | 1.115 | 5.31100 | .00370 | .04630 | .01920 | .00280 | .04640 | -.07930 | .00580 | -.00380 | -.07990 |
| .297 | 2.204 | 5.31810 | .03910 | .04670 | .01970 | .04080 | .04530 | -.07830 | .00570 | -.00420 | -.83390 |
| .297 | 4.262 | 5.33120 | .12910 | .05000 | .01990 | .13240 | .04050 | -.07910 | .00560 | -.00520 | 2.58020 |
| .297 | 6.339 | 5.33870 | .21860 | .05670 | .01890 | .22340 | .03680 | -.07820 | .00490 | -.00980 | 3.85630 |
| .296 | 8.421 | 5.34490 | .31920 | .06770 | .01750 | .32960 | .02130 | -.07580 | .00510 | -.00720 | 4.71750 |
| .297 | 10.505 | 5.34180 | .41450 | .08490 | .01780 | .42260 | .02300 | -.07830 | .00500 | -.00950 | 5.05960 |
| .295 | 12.591 | 5.34910 | .51170 | .10110 | .01840 | .52150 | -.01080 | -.07590 | .00470 | -.01120 | 5.05890 |
| .297 | 14.675 | 5.33510 | .60940 | .12780 | .01850 | .62200 | -.02830 | -.07370 | .00420 | -.01170 | 4.78950 |
| .298 | 16.769 | 5.31820 | .71340 | .16430 | .01550 | .73060 | -.04520 | -.07340 | .00310 | -.01120 | 4.34240 |
| .298 | 18.885 | 5.30950 | .81880 | .20910 | .01280 | .84280 | .06250 | -.07380 | .00320 | -.01240 | 3.91530 |
| .299 | 20.994 | 5.31420 | .91550 | .26320 | .00740 | .94950 | -.07610 | -.07630 | .00340 | -.01500 | 3.47880 |
| .298 | 22.838 | 5.32420 | 1.01620 | .33030 | .00290 | 1.06980 | -.08630 | -.07470 | .00380 | -.01600 | 3.07670 |
| .297 | 24.562 | 5.34740 | 1.10290 | .40710 | .00210 | 1.17220 | -.09030 | -.07610 | .00280 | -.01890 | 2.70950 |
| .298 | 25.558 | 5.36410 | 1.12200 | .44020 | .00550 | 1.20200 | -.08980 | -.07420 | .00090 | -.01910 | 2.54870 |
| | GRADIENT | .00666 | .04403 | .00128 | .08021 | .04483 | -.00192 | .00017 | -.00005 | -.00047 | .87783 |

RUN NO. 269 / 0 RVAL = 4.23 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .595 | 1.187 | 5.37510 | -.00170 | .04940 | .02490 | -.00070 | .04940 | -.08460 | .00650 | -.00380 | -.02490 |
| .596 | 2.204 | 5.37240 | .04480 | .04970 | .02520 | .04650 | .04790 | -.08080 | .00690 | -.00440 | .90080 |
| .596 | 4.262 | 5.37190 | .14030 | .05320 | .02410 | .14390 | .04260 | -.08570 | .00590 | -.00540 | 2.63850 |
| .595 | 6.339 | 5.35290 | .24150 | .06130 | .02160 | .24680 | .03430 | -.08170 | .00520 | -.00590 | 3.93560 |
| .595 | 8.421 | 5.33888 | .34570 | .07350 | .01980 | .35280 | .02210 | -.08370 | .00520 | -.00790 | 4.70480 |
| .525 | 10.505 | 5.31520 | .45360 | .08120 | .01750 | .46280 | .00740 | -.08070 | .00550 | -.01070 | 4.97140 |
| .595 | 12.591 | 5.30420 | .57020 | .12070 | .01440 | .58280 | -.00650 | -.07780 | .00450 | -.01150 | 4.72380 |
| .596 | 14.675 | 5.31540 | .68270 | .16700 | .01240 | .68340 | -.00630 | -.07830 | .00450 | -.01140 | 3.96880 |
| .596 | 16.769 | 5.32060 | .75390 | .22150 | .01130 | .78580 | -.00940 | -.07930 | .00450 | -.01200 | 3.40350 |
| .594 | 18.885 | 5.34180 | .86680 | .29340 | .00340 | .91510 | .00280 | -.08580 | .00610 | -.01060 | 2.92400 |
| .594 | 20.994 | 5.35640 | .96930 | .36740 | -.00570 | 1.03280 | -.00280 | -.08890 | .00770 | -.00930 | 2.62770 |
| .593 | 23.075 | 5.36600 | 1.06400 | .44340 | -.00490 | 1.15080 | -.00770 | -.09440 | .00840 | -.00760 | 2.39140 |
| .593 | 25.155 | 5.37820 | 1.11880 | .51340 | .01240 | 1.23090 | -.01090 | -.09480 | .00790 | -.00980 | 2.17940 |
| .595 | 26.117 | 5.37890 | 1.05410 | .51500 | .04980 | 1.17310 | -.00160 | -.07220 | .00390 | -.01650 | 2.04690 |
| | GRADIENT | -.06092 | .04622 | .00130 | -.00070 | .04707 | -.00282 | .00065 | -.00024 | -.00052 | .86691 |

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TABLATED DATA - 0A161 (ARC 11-97-87-094)

(RET044) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER + PROBES

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. YMRP = 1076.6800 IN. X01
LREF = 474.8000 IN. YMRP = .0000 IN. Y01
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z01
SCALE = .0300.

BETA = 8.000 ELEVON = .000
AIRLON = .000 EDFLAP = -7.170

RUN. NO. 2577 0 RVAL = 3.92 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|--------|---------|--------|---------|---------|
| .295 | 1.185 | 8.35750 | .00760 | .04310 | .01720 | .00840 | .04300 | -.13210 | .00550 | -.00580 | 1.7530 |
| .296 | 2.174 | 8.37590 | .04940 | .04370 | .01670 | .05100 | .04180 | -.13320 | .00930 | -.00670 | 1.13030 |
| .297 | 4.182 | 8.37530 | .13500 | .04650 | .01710 | .13800 | .04180 | -.13070 | .00970 | -.00860 | 2.90260 |
| .298 | 6.217 | 8.37270 | .23100 | .05400 | .01540 | .23550 | .02850 | -.13280 | .00940 | -.01040 | 4.28010 |
| .299 | 8.253 | 8.37760 | .31630 | .06490 | .01660 | .32440 | .01850 | -.12770 | .00870 | -.01290 | 4.90540 |
| .300 | 10.319 | 8.37200 | .41950 | .08020 | .01530 | .42690 | .00370 | -.12750 | .00930 | -.01600 | 5.23120 |
| .301 | 12.372 | 8.37380 | .52180 | .10190 | .01250 | .53150 | .01220 | -.12730 | .00928 | -.01900 | 5.11940 |
| .302 | 14.435 | 8.37670 | .62130 | .12930 | .01170 | .63400 | .02970 | -.12640 | .00740 | -.02040 | 4.80490 |
| .303 | 16.477 | 8.35650 | .72900 | .16440 | .00870 | .73710 | .04660 | -.11900 | .00740 | -.02040 | 4.37970 |
| .304 | 18.532 | 8.35780 | .82970 | .20950 | .00480 | .84750 | .05310 | -.12220 | .00690 | -.02250 | 3.93140 |
| .305 | 20.574 | 8.36760 | .92950 | .26540 | -.00100 | .96350 | .07810 | -.12230 | .00660 | -.02540 | 3.50200 |
| .306 | 22.587 | 8.36300 | 1.03160 | .33370 | -.00490 | 1.08070 | .09820 | -.12610 | .00710 | -.02800 | 3.09160 |
| .307 | 24.589 | 8.40600 | 1.12170 | .40940 | -.01120 | 1.19030 | .09470 | -.13160 | .00690 | -.02760 | 2.74080 |
| .308 | 25.580 | 8.42800 | 1.12580 | .43560 | -.00830 | 1.20350 | .09820 | -.11410 | .00440 | -.03230 | 2.56440 |
| .309 | GRADIENT | .00507 | .04254 | .00117 | .00880 | .04327 | .00224 | .00058 | .00009 | -.00091 | .90627 |

RUN. NO. 2707 0 RVAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|--------|---------|---------|---------|---------|--------|---------|---------|
| .595 | 1.188 | 8.42910 | .03510 | .04670 | .02230 | .00610 | .04660 | -.14230 | .00988 | -.00560 | 1.10940 |
| .596 | 2.204 | 8.43240 | .05040 | .04750 | .02240 | .05220 | .04250 | -.13798 | .01030 | -.00670 | 1.06120 |
| .597 | 4.236 | 8.42870 | .14720 | .05130 | .02190 | .15060 | .04020 | -.13630 | .01050 | -.00890 | 2.87250 |
| .598 | 6.336 | 8.42250 | .24900 | .05900 | .01970 | .25400 | .03120 | -.13410 | .01070 | -.01120 | 4.21820 |
| .599 | 8.417 | 8.43010 | .35050 | .07280 | .01980 | .35740 | .02070 | -.13420 | .00970 | -.01410 | 4.81260 |
| .600 | 10.533 | 8.42330 | .46330 | .09210 | .01500 | .47230 | .00590 | -.13460 | .01050 | -.01770 | 5.02970 |
| .601 | 12.641 | 8.41790 | .58240 | .12488 | .00870 | .59550 | .00600 | -.13400 | .01020 | -.01920 | 4.67810 |
| .602 | 14.748 | 8.42186 | .71090 | .17080 | .00640 | .70120 | .00790 | -.13400 | .01010 | -.01860 | 3.98040 |
| .603 | 16.829 | 8.40560 | .82220 | .22200 | .00350 | .80470 | .01130 | -.13480 | .01180 | -.01860 | 3.48150 |
| .604 | 18.932 | 8.41200 | .95498 | .28750 | .00150 | .91150 | .00930 | -.13070 | .01190 | -.02080 | 3.00460 |
| .605 | 21.020 | 8.42030 | 1.09170 | .36420 | -.00470 | 1.03480 | .00740 | -.14180 | .01320 | -.01840 | 2.65940 |
| .606 | 23.079 | 8.42726 | 1.09170 | .43750 | -.00470 | 1.13900 | .00980 | -.14300 | .01250 | -.01410 | 2.40020 |
| .607 | 25.131 | 8.43860 | 1.10090 | .50140 | .01340 | 1.20960 | .01360 | -.14710 | .01020 | -.01230 | 2.19590 |
| .608 | 26.100 | 8.44420 | 1.09140 | .50340 | .04530 | 1.16570 | .01050 | -.12350 | .00640 | -.02550 | 2.08660 |
| .609 | GRADIENT | -.00037 | .04644 | .00155 | -.00015 | .04722 | -.00216 | .00178 | .00021 | -.00108 | .89798 |

(RET045) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-09*)
ARC 11-97-87-09* OA161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300.

RUN NO. 2767 0 RNYL = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| .296 | .194 | -4.89690 | .24440 | .07198 | -.11310 | .24460 | -.07198 | -.00830 | -.00830 | .00650 | 3.40040 |
| .296 | 2.186 | -4.89690 | .33160 | .07980 | -.11350 | .33440 | -.06710 | -.00830 | -.00830 | .00780 | 4.15490 |
| .296 | 4.186 | -4.89440 | .41706 | .09180 | -.11370 | .42260 | -.06110 | -.00790 | -.00790 | .00910 | 4.54240 |
| .296 | 6.213 | -4.88660 | .50768 | .10690 | -.11400 | .51620 | -.05800 | -.00840 | -.00840 | .00980 | 4.75040 |
| .296 | 8.252 | -4.88380 | .60460 | .12610 | -.11700 | .61650 | -.05800 | -.00830 | -.00830 | .01150 | 4.79380 |
| .296 | 10.309 | -4.87440 | .69460 | .14890 | -.11670 | .71000 | -.05220 | -.00830 | -.00830 | .01420 | 4.66590 |
| .296 | 12.365 | -4.84240 | .79160 | .17890 | -.11730 | .81170 | -.04520 | -.00830 | -.00830 | .01570 | 4.42470 |
| .297 | 14.411 | -4.81730 | .88810 | .21380 | -.11580 | .90650 | -.04220 | -.00860 | -.00860 | .01740 | 4.12060 |
| .296 | 16.451 | -4.84630 | .98690 | .26120 | -.11890 | 1.02040 | -.02900 | -.00800 | -.00800 | .01900 | 3.77890 |
| .296 | 18.516 | -4.84660 | 1.09040 | .31810 | -.12350 | 1.13500 | -.04460 | -.00780 | -.00780 | .01940 | 3.42770 |
| .297 | 20.579 | -4.85980 | 1.17830 | .38120 | -.12540 | 1.23710 | -.05730 | -.00700 | -.00700 | .01940 | 3.09120 |
| .296 | 22.625 | -4.86660 | 1.25990 | .45780 | -.12710 | 1.34290 | -.05290 | -.00550 | -.00550 | .01300 | 2.69340 |
| .296 | 24.678 | -4.86310 | 1.32030 | .55690 | -.12710 | 1.42970 | -.05060 | -.01010 | -.01010 | .01300 | 2.32640 |
| .296 | 25.688 | -4.85820 | 1.36860 | .68730 | -.11980 | 1.45198 | -.04670 | -.00940 | -.00940 | .01230 | 2.28230 |
| GRADIENT | | .00663 | .04324 | .00499 | -.00015 | .04459 | -.00246 | -.00018 | -.00018 | .00065 | .28605 |

RUN NO. 2774 0 RNYL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| .597 | .238 | -4.94770 | .25130 | .07630 | -.11980 | .25160 | -.07620 | -.00900 | -.00900 | .00670 | 3.29490 |
| .597 | 2.262 | -4.92880 | .34360 | .08550 | -.12020 | .34690 | -.07190 | -.00860 | -.00860 | .00800 | 4.01940 |
| .597 | 4.305 | -4.91990 | .43610 | .09880 | -.12160 | .44430 | -.06560 | -.00800 | -.00800 | .01050 | 4.43550 |
| .597 | 6.364 | -4.91390 | .54370 | .11750 | -.12580 | .55340 | -.05630 | -.00810 | -.00810 | .01100 | 4.62780 |
| .597 | 8.471 | -4.90240 | .65890 | .14220 | -.13360 | .67260 | -.04350 | -.00860 | -.00860 | .01100 | 4.63490 |
| .599 | 10.574 | -4.88610 | .76540 | .17270 | -.13770 | .78510 | -.02910 | -.00830 | -.00830 | .01340 | 4.43830 |
| .599 | 12.672 | -4.88270 | .85940 | .21460 | -.13368 | .88568 | -.02090 | -.01040 | -.01040 | .01050 | 4.00440 |
| .597 | 14.764 | -4.89160 | .92980 | .26880 | -.12410 | .96370 | -.02400 | -.01100 | -.01100 | .08500 | 3.44460 |
| .596 | 16.850 | -4.88420 | .99480 | .33790 | -.12390 | 1.05010 | -.03510 | -.01000 | -.01000 | .00820 | 2.94330 |
| .596 | 18.973 | -4.90900 | 1.09220 | .41490 | -.13160 | 1.16770 | -.03720 | -.01070 | -.01070 | .00490 | 2.63260 |
| .596 | 21.077 | -4.90820 | 1.16810 | .48710 | -.12480 | 1.26330 | -.03510 | -.01130 | -.01130 | .00800 | 2.35940 |
| .597 | 23.157 | -4.91030 | 1.22000 | .55350 | -.10900 | 1.33940 | -.02910 | -.01030 | -.01030 | .00630 | 2.20430 |
| .597 | 25.170 | -4.87670 | 1.26400 | .67390 | -.03510 | 1.42660 | -.03350 | -.00560 | -.00560 | .00920 | 1.98940 |
| .597 | 26.154 | -4.86900 | 1.28270 | .75890 | -.06650 | 1.42610 | -.04080 | -.00590 | -.00590 | .01090 | 1.87680 |
| GRADIENT | | .00683 | .04593 | .00553 | -.00044 | .04738 | -.00236 | -.00025 | -.00025 | .00081 | .28034 |

TABLATED DATA - 0A161 (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A161 ORBITER + PROBES

(RE7046) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LPEF = 474.8000 IN. YMRP = .0000 IN. YO
 BRPF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .0000 ELEVON = 15.000
 A/RON = .0000 BOFLAP = -7.170

RUN NO. 275/ 0 RN/L = 3.92 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|--------|--------|---------|--------|---------|---------|---------|--------|---------|
| .297 | 1.175 | -1.87260 | 24660 | 07940 | -1.1300 | 24690 | 07460 | 04340 | -0.0370 | 00250 | 3.27230 |
| .297 | 2.154 | -1.84480 | 33084 | 08310 | -1.1320 | 33370 | 07060 | 04100 | -0.0390 | 00290 | 3.97980 |
| .297 | 4.160 | -1.83540 | 41480 | 09380 | -1.1280 | 42060 | 06350 | 03820 | -0.0390 | 00390 | 4.42120 |
| .297 | 6.182 | -1.83090 | 50400 | 10800 | -1.1230 | 51270 | 05300 | 03860 | -0.0360 | 00430 | 4.65840 |
| .297 | 8.226 | -1.83530 | 59660 | 12710 | -1.1150 | 60850 | 04040 | 03720 | -0.0400 | 00560 | 4.69590 |
| .297 | 10.283 | -1.83580 | 69290 | 15060 | -1.1090 | 70860 | 02450 | 04080 | -0.0410 | 00630 | 4.60100 |
| .297 | 12.354 | -1.83580 | 79170 | 18140 | -1.1090 | 81220 | 00980 | 04010 | -0.0410 | 00740 | 4.36410 |
| .297 | 14.399 | -1.83370 | 88460 | 21690 | -1.1090 | 91080 | -0.0980 | 03750 | -0.0450 | 00810 | 4.07800 |
| .297 | 16.470 | -1.83370 | 98610 | 26340 | -1.1090 | 102030 | -0.2700 | 04120 | -0.0450 | 00960 | 3.74410 |
| .297 | 18.540 | -1.84450 | 108820 | 31890 | -1.1090 | 113340 | -0.4370 | 04150 | -0.0430 | 00970 | 3.41250 |
| .297 | 20.617 | -1.84540 | 119010 | 38650 | -1.1290 | 125000 | -0.5730 | 03950 | -0.0360 | 00830 | 3.07890 |
| .297 | 22.695 | -1.84010 | 129660 | 46740 | -1.2290 | 133320 | -0.9000 | 04940 | -0.0760 | 00430 | 2.67370 |
| .297 | 24.695 | -1.81980 | 129750 | 54950 | -1.1760 | 140840 | -0.4270 | 04460 | -0.0530 | 00530 | 2.36060 |
| .297 | 25.695 | -1.80940 | 130980 | 58740 | -1.1090 | 143500 | -0.3870 | 04450 | -0.0530 | 00240 | 2.22980 |
| .297 | GRADIENT | .00933 | .04220 | .00462 | .00020 | .04368 | -.00278 | -.00130 | -.00085 | .00035 | .26811 |

RUN NO. 278/ 0 RN/L = 4.17 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|----------|--------|--------|----------|--------|---------|---------|---------|---------|---------|
| .596 | .184 | -1.85200 | 25050 | 07900 | -1.11870 | 25080 | 07220 | 03980 | -0.0420 | 00250 | 3.17160 |
| .596 | 2.229 | -1.85810 | 34500 | 08840 | -1.11990 | 34820 | 07490 | 04230 | -0.0340 | 00350 | 3.90510 |
| .597 | 4.284 | -1.84120 | 43830 | 10080 | -1.2030 | 44460 | 06780 | 03870 | -0.0300 | 00380 | 4.34660 |
| .596 | 6.363 | -1.83070 | 53790 | 11810 | -1.2260 | 54770 | 05780 | 03540 | -0.0320 | 00480 | 4.55330 |
| .596 | 8.455 | -1.83550 | 65100 | 14210 | -1.3008 | 66480 | 04490 | 03770 | -0.0370 | 00550 | 4.57990 |
| .598 | 10.563 | -1.82730 | 76320 | 17320 | -1.3480 | 78200 | 03030 | 03930 | -0.0330 | 00620 | 4.40690 |
| .598 | 12.667 | -1.82650 | 86290 | 21770 | -1.3360 | 88920 | 02320 | 04640 | -0.0580 | 00140 | 3.96250 |
| .597 | 14.741 | -1.82790 | 94820 | 27120 | -1.2290 | 95700 | 02860 | 04670 | -0.0630 | -0.0060 | 3.38630 |
| .597 | 16.873 | -1.87830 | 99820 | 33970 | -1.2240 | 104620 | 03770 | 05030 | -0.0540 | 00160 | 2.91490 |
| .595 | 18.999 | -1.87340 | 109530 | 42030 | -1.17250 | 117250 | 04080 | 05660 | -0.0570 | -0.0310 | 2.60610 |
| .596 | 21.118 | -1.86350 | 117340 | 49720 | -1.2500 | 127340 | 04110 | 06000 | -0.0630 | -0.0640 | 2.35950 |
| .597 | 23.191 | -1.85330 | 122630 | 56510 | -1.10620 | 134870 | 03660 | 06760 | -0.0680 | -0.0840 | 2.16990 |
| .598 | 25.192 | -1.81920 | 113070 | 57520 | -0.02690 | 126790 | 03920 | 04690 | -0.0356 | 00070 | 1.96570 |
| .597 | 26.169 | -1.80400 | 110690 | 57560 | -0.0160 | 121340 | 04530 | 04340 | -0.0450 | 00140 | 1.66750 |
| .597 | GRADIENT | .00264 | .04580 | .00532 | -.00039 | .04727 | -.00254 | -.00027 | -.00029 | .00032 | .26651 |

(REZON471) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
AIRCOR = .000 BDFLAP = -7.170

TABULATED DATA - 0A181 (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A181 ORBITER * PROBES

REFERENCE DATA

SPEC = 2690.0000 SQ. FT. XMRP = 1078.8888 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 938.8800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 274 0 RVAL = 3.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|--------|---------|---------|--------|---------|---------|---------|---------|
| .298 | .143 | .18390 | .24230 | .07660 | .00690 | -.11030 | .24290 | .07600 | .00690 | -.00130 | .00010 | 3.16160 |
| .298 | 2.148 | .32810 | .32810 | .07150 | .00770 | -.11060 | .33090 | .07150 | -.00770 | -.00110 | -.00040 | 3.91050 |
| .297 | 4.160 | .20270 | .41500 | .05520 | .00760 | -.10990 | .42390 | .05520 | .00760 | -.00130 | .06070 | 4.34090 |
| .298 | 6.183 | .20680 | .50200 | .05440 | .00600 | -.10700 | .51080 | .05440 | .00600 | -.00120 | .00110 | 4.60190 |
| .297 | 8.225 | .21270 | .59760 | .04110 | .00790 | -.12600 | .60970 | .04110 | .00790 | -.00120 | .00150 | 4.67140 |
| .297 | 10.265 | .21230 | .69130 | .02500 | .00650 | -.11400 | .70710 | .02500 | .00650 | -.00140 | .00170 | 4.59000 |
| .297 | 12.304 | .21050 | .78500 | .00820 | .00720 | -.11330 | .80620 | .00820 | .00720 | -.00100 | .00160 | 4.37090 |
| .297 | 14.360 | .20980 | .88190 | .00900 | .00740 | -.11400 | .90800 | .00900 | .00740 | -.00110 | .00230 | 4.07270 |
| .297 | 16.428 | .20870 | .98540 | .01960 | .00740 | -.11640 | 1.01960 | .01960 | .00740 | -.00150 | .00300 | 3.74470 |
| .297 | 18.489 | .20760 | 1.08400 | .02630 | .01020 | -.11900 | 1.12660 | .02630 | .01020 | -.00130 | .00170 | 3.41770 |
| .297 | 20.571 | .20650 | 1.17940 | .03000 | .00930 | -.12110 | 1.23860 | .03000 | .00930 | -.00140 | .00130 | 3.09300 |
| .298 | 22.637 | .20510 | 1.24450 | .05154 | .01820 | -.12110 | 1.32670 | .05154 | .01820 | -.00290 | -.00290 | 2.65360 |
| .298 | 24.665 | .20410 | 1.29410 | .03979 | .01820 | -.12110 | 1.40580 | .03979 | .01820 | -.00240 | -.00130 | 2.35060 |
| .298 | 25.681 | .20340 | 1.30800 | .03940 | .01630 | -.10980 | 1.43250 | .03940 | .01630 | -.00240 | -.00140 | 2.23490 |
| .298 | GRADIENT | .00468 | .04299 | .00473 | .00017 | -.00015 | .04441 | .00269 | .00017 | -.00000 | .00015 | .29346 |

RUN NO. 275 0 RVAL = 4.16 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|--------|---------|---------|--------|--------|---------|--------|---------|
| .596 | .178 | .20810 | .24680 | .08000 | .00000 | -.11720 | .24710 | .07930 | .00740 | -.00110 | .00030 | 3.02430 |
| .600 | 2.230 | .22680 | .34150 | .08890 | .00660 | -.11820 | .34470 | .07550 | .00660 | -.00080 | .00050 | 3.64330 |
| .592 | 4.285 | .22740 | .43180 | .10080 | .00820 | -.11740 | .43810 | .06920 | .00870 | -.00040 | .00070 | 4.28430 |
| .594 | 6.363 | .23740 | .52980 | .11740 | .05080 | -.11990 | .53950 | .05080 | .00500 | -.00060 | .00140 | 4.51120 |
| .595 | 8.454 | .24040 | .64540 | .14180 | .04530 | -.12720 | .65950 | .04530 | .00760 | -.00050 | .00180 | 4.54990 |
| .597 | 10.573 | .24040 | .76020 | .17320 | .03080 | -.13420 | .77980 | .03080 | .00540 | -.00040 | .00140 | 4.38670 |
| .585 | 12.685 | .23760 | .86630 | .22040 | .02480 | -.13330 | .89350 | .02480 | .01020 | -.00310 | .00350 | 3.93180 |
| .584 | 14.751 | .24140 | .91610 | .27170 | .02950 | -.12090 | .95510 | .02950 | .01390 | -.00290 | .00440 | 3.37210 |
| .595 | 16.893 | .23530 | .98630 | .33740 | .03660 | -.11890 | 1.04170 | .03660 | .01160 | -.00210 | .00540 | 2.92650 |
| .595 | 18.963 | .23393 | 1.09260 | .41840 | .04060 | -.12950 | 1.16920 | .04060 | .01400 | -.00230 | .00540 | 2.61740 |
| .595 | 21.088 | .22090 | 1.24570 | .49950 | .04040 | -.12680 | 1.18920 | .04040 | .01900 | -.00250 | .00540 | 2.36820 |
| .595 | 23.170 | .21990 | 1.18320 | .57150 | .03520 | -.10950 | 1.28370 | .03520 | .02060 | -.00220 | .00540 | 2.17980 |
| .595 | 25.169 | .22990 | 1.13020 | .57500 | .03980 | -.02480 | 1.37000 | .03980 | .01580 | -.00250 | .00060 | 1.96250 |
| .59E | GRADIENT | .00470 | .04584 | .00586 | .00005 | -.00005 | .04650 | .00270 | .00039 | -.00017 | .00010 | .29215 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = 15.000
 AIRLON = .000 BDFLAP = -2.170

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .297 | .142 | 2.26150 | .24030 | .07620 | -.11220 | .24090 | .07560 | -.02710 | .00130 | -.00240 | 3.15520 |
| .298 | 2.156 | 2.26480 | .32700 | .08420 | -.11280 | .32990 | .07180 | -.02760 | .00120 | -.00280 | 3.68420 |
| .298 | 4.168 | 2.27720 | .41200 | .09530 | -.11220 | .41780 | .06510 | -.02570 | .00110 | -.00260 | 4.32180 |
| .298 | 6.204 | 2.28640 | .50370 | .11090 | -.11300 | .51270 | .05490 | -.02450 | .00150 | -.00280 | 4.58050 |
| .298 | 8.246 | 2.29330 | .59520 | .12780 | -.11500 | .60740 | .04110 | -.02760 | .00130 | -.00280 | 4.65660 |
| .298 | 10.297 | 2.31030 | .69350 | .15110 | -.11630 | .70940 | .02470 | -.02650 | .00110 | -.00340 | 4.59080 |
| .297 | 12.397 | 2.30980 | .79270 | .18210 | -.11690 | .81330 | .00770 | -.02330 | .00190 | -.00440 | 4.35230 |
| .298 | 14.497 | 2.27160 | .88510 | .21830 | -.11586 | .91150 | -.01020 | -.02470 | .00140 | -.00410 | 4.05470 |
| .297 | 16.577 | 2.25340 | .99420 | .26720 | -.11870 | 1.02910 | -.02760 | -.02120 | .00120 | -.00340 | 3.72450 |
| .297 | 18.630 | 2.24440 | 1.08610 | .31910 | -.11990 | 1.13110 | -.04450 | -.02190 | .00090 | -.00390 | 3.40320 |
| .297 | 20.678 | 2.23970 | 1.18210 | .38500 | -.12240 | 1.24200 | -.05720 | -.02220 | .00020 | -.00550 | 3.07010 |
| .297 | 22.708 | 2.23880 | 1.25420 | .46860 | -.12290 | 1.33670 | -.05460 | -.01730 | -.00310 | -.00950 | 2.69410 |
| .297 | 24.726 | 2.27210 | 1.31220 | .55330 | -.11990 | 1.42330 | -.04630 | -.01530 | -.00260 | -.00760 | 2.31460 |
| .297 | 26.730 | 2.28310 | 1.33010 | .59760 | -.11500 | 1.45770 | -.03910 | -.02200 | -.00080 | -.00490 | 2.22510 |
| .297 | .00330 | .04264 | .00000 | .00474 | -.00000 | .04404 | -.0025 | .00033 | -.06005 | -.00005 | .28978 |

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 2801 0

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| .595 | .196 | 2.25620 | .24450 | .07920 | -.11700 | .24480 | .07840 | -.03030 | .00470 | -.00230 | 3.08970 |
| .595 | 2.244 | 2.28440 | .33978 | .08850 | -.11830 | .34300 | .07510 | -.03080 | .00180 | -.00270 | 3.83940 |
| .594 | 4.304 | 2.29860 | .43520 | .10190 | -.11950 | .44160 | .06900 | -.03090 | .00160 | -.00270 | 4.56900 |
| .594 | 6.386 | 2.30480 | .53950 | .11850 | -.12210 | .54540 | .05820 | -.03040 | .00170 | -.00236 | 4.52070 |
| .595 | 8.493 | 2.30350 | .64960 | .14238 | -.12560 | .66350 | .04480 | -.02910 | .00230 | -.00240 | 4.56380 |
| .594 | 10.608 | 2.30700 | .76730 | .17478 | -.13590 | .78630 | .03050 | -.03250 | .00280 | -.00380 | 4.39150 |
| .583 | 12.737 | 2.28490 | .87580 | .22440 | -.13810 | .90310 | .02290 | -.02660 | .00180 | -.00310 | 3.96490 |
| .595 | 14.827 | 2.30760 | .98640 | .27410 | -.12040 | .95180 | .03160 | -.02280 | .00090 | -.00440 | 3.32750 |
| .597 | 16.976 | 2.31070 | .98640 | .33810 | -.11780 | 1.04210 | .03540 | -.02580 | .00070 | -.00440 | 2.91770 |
| .598 | 19.093 | 2.29780 | 1.10670 | .42660 | -.13440 | 1.18540 | .04120 | -.02900 | .00160 | -.00430 | 2.59400 |
| .597 | 21.192 | 2.26910 | 1.19500 | .50870 | -.12770 | 1.29440 | .03830 | -.02860 | .00190 | -.00300 | 2.36970 |
| .593 | 23.251 | 2.38110 | 1.26890 | .58050 | -.11590 | 1.39450 | .03260 | -.03710 | .00250 | -.00230 | 2.18490 |
| .596 | 25.216 | 2.30670 | 1.12000 | .57230 | -.02280 | 1.25710 | .04060 | -.01760 | -.00130 | -.00850 | 1.95700 |
| .595 | 26.189 | 2.31470 | 1.07760 | .57960 | .00020 | 1.22280 | .04450 | -.01690 | -.00030 | -.00520 | 1.85940 |
| | | .01032 | .04642 | .00553 | -.00066 | .04791 | -.00223 | .00015 | -.00002 | -.00010 | .28799 |

GRADIENT

TABULATED DATA - OA161 (ARC 11-97-87-09*)
 ARC 11-97-87-09* OA161 ORBITER + PROBES

PARAMETRIC DATA

BETA = 5.000 ELEVON = 15.000
 ANLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XPRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YPRP = .0000 IN. YO
 BREF = 936.6800 IN. ZPRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 272/ 0 RN/L = 3.92 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .297 | .178 | 5.29790 | 2.3930 | -1.1580 | .25960 | .07290 | -.07950 | .00610 | -.00510 | 3.25150 |
| .298 | 2.175 | 5.33200 | 3.2600 | -1.1680 | .32890 | -.06970 | -.08080 | -.00610 | -.00610 | 3.96770 |
| .298 | 4.195 | 5.34190 | 4.1670 | -1.1780 | 4.2240 | .06190 | -.07990 | .00590 | -.00690 | 4.49750 |
| .297 | 6.235 | 5.34570 | 5.0958 | -1.1890 | .51840 | .05330 | -.07890 | .00520 | -.00690 | 4.66920 |
| .297 | 8.278 | 5.35420 | 1.2830 | -1.2000 | .61440 | .04020 | -.08220 | .00570 | -.00820 | 4.69460 |
| .292 | 10.351 | 5.34900 | 1.5180 | -1.1980 | .71080 | .02450 | -.07940 | .00590 | -.01000 | 4.57690 |
| .299 | 12.419 | 5.35440 | .69480 | -1.2070 | .80990 | .00620 | -.07650 | .00580 | -.01150 | 4.39080 |
| .299 | 14.496 | 5.34030 | .78960 | -1.1950 | .90890 | -.01130 | -.07780 | .00520 | -.01300 | 4.07590 |
| .299 | 16.558 | 5.32610 | .88280 | -1.2240 | 1.02190 | -.02890 | -.07510 | .00440 | -.01330 | 3.74810 |
| .298 | 18.623 | 5.32040 | 1.08740 | -1.2200 | 1.13230 | -.04610 | -.07610 | .00370 | -.01450 | 3.41070 |
| .297 | 20.678 | 5.32220 | 1.32500 | -1.2500 | 1.24180 | -.05830 | -.07410 | .00200 | -.01670 | 3.08090 |
| .297 | 22.687 | 5.32750 | 1.56670 | -1.2700 | 1.34808 | -.05960 | -.07340 | .00150 | -.01970 | 2.72430 |
| .297 | 24.708 | 5.34750 | 1.82540 | -1.2480 | 1.43350 | -.05550 | -.08480 | .00450 | -.01560 | 2.41530 |
| .298 | 25.700 | 5.35940 | 1.32740 | -1.1890 | 1.45150 | -.04490 | -.08770 | .00720 | -.01220 | 2.25360 |
| .298 | GRADIENT | .01094 | .04416 | -.00050 | .04551 | -.00274 | -.00010 | -.00005 | -.00035 | .31008 |

RUN NO. 281/ 0 RN/L = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .596 | 21.3 | 5.34470 | 2.4960 | -1.2150 | .24980 | .07610 | -.08220 | .00680 | -.00550 | 3.23870 |
| .595 | 2.259 | 5.36180 | .39640 | -1.2180 | .34280 | .07290 | -.08150 | .00680 | -.00660 | 3.95300 |
| .594 | 4.327 | 5.37390 | 4.4180 | -1.2010 | .44820 | .06710 | -.08758 | .00640 | -.00720 | 4.38540 |
| .594 | 6.412 | 5.37270 | 1.1400 | -1.2690 | .55050 | .05680 | -.09500 | .00610 | -.00690 | 4.58330 |
| .597 | 8.516 | 5.37350 | .62900 | -1.3420 | .66860 | .04410 | -.08650 | .00630 | -.00730 | 4.59830 |
| .596 | 10.640 | 5.35630 | .7820 | -1.3990 | .78720 | .02970 | -.08420 | .00670 | -.01030 | 4.40160 |
| .597 | 12.740 | 5.36920 | 1.1940 | -1.3930 | .86310 | .02300 | -.08480 | .00660 | -.00960 | 3.94730 |
| .594 | 14.826 | 5.38240 | .86600 | -1.2600 | .96460 | .02850 | -.07930 | .00520 | -.01260 | 3.37140 |
| .596 | 16.928 | 5.39240 | .9520 | -1.3500 | 1.09650 | .03220 | -.09570 | .00550 | -.01260 | 2.95970 |
| .597 | 19.049 | 5.38870 | 1.09970 | -1.3300 | 1.17550 | .03490 | -.09120 | .00520 | -.00730 | 2.63940 |
| .596 | 21.148 | 5.39620 | 1.18240 | -1.2850 | 1.28090 | .03400 | -.10260 | .00920 | -.00300 | 2.39450 |
| .597 | 23.218 | 5.40140 | 1.25960 | -1.2030 | 1.38260 | .02820 | -.10960 | .00170 | -.00260 | 2.20610 |
| .596 | 25.295 | 5.39920 | 1.15750 | -1.4220 | 1.29450 | .03250 | -.10960 | .00370 | -.01930 | 1.99400 |
| .596 | 26.157 | 5.40820 | 1.09250 | -.06300 | 1.23720 | .04070 | -.08920 | .00480 | -.01140 | 1.87740 |
| .596 | GRADIENT | .00710 | .00574 | -.00068 | .04820 | -.00213 | -.00129 | -.00010 | -.00041 | .27861 |

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(RE7099) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A1LRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. XMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEB | L/D |
|----------|--------|----------|----------|---------|----------|---------|---------|---------|--------|---------|
| .550 | .142 | -4.91900 | -0.04810 | .02730 | -0.04800 | .04920 | .08750 | -.00680 | .00360 | -.98110 |
| .561 | 2.164 | -4.92060 | .04350 | .02750 | .04740 | .04740 | .08860 | -.00650 | .00510 | .88630 |
| .561 | 4.208 | -4.92660 | 1.3780 | .02720 | 1.4130 | .04230 | .08690 | -.00640 | .00580 | 2.62230 |
| .561 | 6.260 | -4.91930 | .23580 | .02510 | .24100 | .03430 | .08330 | -.00610 | .00680 | 3.90270 |
| .561 | 8.337 | -4.91250 | 3.4060 | .02280 | 3.4740 | .02210 | .08530 | -.00680 | .00550 | 4.71070 |
| .561 | 10.434 | -4.90270 | 4.4450 | .02180 | 4.5330 | .00730 | .08300 | -.00690 | .01270 | 4.97850 |
| .561 | 12.529 | -4.87450 | .55690 | .02000 | .56850 | -.00870 | .08050 | -.00640 | .01470 | 4.85120 |
| .561 | 14.626 | -4.86210 | .66650 | .01630 | .68460 | -.01640 | .08450 | -.00770 | .01340 | 4.24600 |
| .561 | 16.707 | -4.86300 | .76820 | .01260 | .78970 | -.01330 | .08820 | -.00900 | .00900 | 3.54840 |
| .560 | 18.821 | -4.89620 | .86200 | .00810 | .89750 | -.00780 | .09070 | -.00860 | .00930 | 3.02820 |
| .560 | 20.918 | -4.89780 | 9.4000 | .00500 | 1.00410 | -.00570 | .09310 | -.00830 | .00920 | 2.66160 |
| .561 | 23.003 | -4.89680 | 1.01510 | .00570 | 1.09860 | -.01020 | .09980 | -.00790 | .00370 | 2.41770 |
| .569 | 25.083 | -4.89100 | 1.09710 | .04080 | 1.20400 | .01570 | 1.1070 | -.00680 | .00130 | 2.21110 |
| GRADIENT | | | .04089 | -.00002 | .04665 | -.00170 | -.00015 | .00010 | .00054 | .86791 |

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CEB | L/D |
|----------|--------|----------|---------|---------|---------|---------|---------|---------|--------|----------|
| .730 | .105 | -4.93010 | -.05690 | .03370 | -.05680 | .05170 | .09170 | -.00770 | .00330 | -1.10470 |
| .731 | 2.170 | -4.94910 | .04160 | .03330 | .04350 | .05030 | .08930 | -.00780 | .00510 | .80020 |
| .731 | 4.236 | -4.95170 | 1.4270 | .03250 | 1.4640 | .04490 | .08570 | -.00760 | .00600 | 2.56690 |
| .730 | 6.337 | -4.94800 | .25260 | .02780 | .25830 | .03680 | .08970 | -.00650 | .00720 | 3.87970 |
| .732 | 8.452 | -4.93230 | 3.6540 | .02360 | 3.7358 | .0271 | .08620 | -.00740 | .00880 | 4.43740 |
| .731 | 10.577 | -4.92540 | 4.7390 | .01870 | 4.8640 | .02320 | .08570 | -.00700 | .01030 | 4.22700 |
| .731 | 12.697 | -4.90740 | 5.7010 | .01780 | 5.8920 | .02130 | .08750 | -.00710 | .01800 | 3.78300 |
| GRADIENT | | | .04644 | -.00020 | .04932 | -.00165 | -.00146 | .00092 | .00066 | .65153 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A1LRON = .000 BDFLAP = -7.170

REFERENCE DATA:

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 397/ 0 RWL = 3.08 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.996 | .012 | -5.57200 | -.01890 | .13970 | .00830 | -.01880 | -.13970 | .08540 | -.00400 | .00240 | -.13510 |
| 1.996 | 2.012 | -5.57320 | .07110 | .13950 | -.00710 | .07590 | -.13690 | .08080 | -.00310 | .00270 | -.50930 |
| 1.996 | 6.155 | -5.57320 | .25930 | .16010 | -.03710 | .27400 | -.13140 | .07380 | -.00220 | .00290 | 1.61350 |
| 1.996 | 8.234 | -5.57270 | .34590 | .18070 | -.04800 | .36820 | -.12930 | .07180 | -.00120 | .00350 | 1.91390 |
| 1.996 | 10.305 | -5.56990 | .43640 | .20940 | -.06680 | .46680 | -.12790 | .06950 | -.00170 | .00360 | 2.08410 |
| 1.996 | 12.346 | -5.57220 | .51530 | .24110 | -.08590 | .55500 | -.12540 | .07170 | -.00270 | .00370 | 2.13700 |
| 1.996 | 14.441 | -5.57420 | .59460 | .28020 | -.07120 | .64570 | -.12310 | .07210 | -.00460 | .00320 | 2.12210 |
| 1.996 | 16.583 | -5.57480 | .67380 | .32500 | -.08650 | .73850 | -.11920 | .07030 | -.00710 | .00290 | 2.07338 |
| 1.996 | 18.678 | -5.57670 | .75340 | .37610 | -.09080 | .83410 | -.11500 | .06890 | -.01030 | .00290 | 2.00320 |
| 1.996 | 20.799 | -5.57430 | .80380 | .42530 | -.08820 | .92550 | -.10740 | .06160 | -.01650 | .00370 | 1.82850 |
| 1.996 | 22.859 | -5.57170 | .86030 | .46180 | -.08490 | 1.01750 | -.10610 | .05820 | -.01930 | .00390 | 1.70920 |
| 1.996 | 25.867 | -5.57520 | .92400 | .49680 | -.08430 | 1.11390 | -.10470 | .06240 | -.02090 | .00400 | 1.65940 |
| 1.996 | GRADIENT | -.00050 | -.00499 | -.00010 | -.00770 | -.04734 | -.00142 | -.00230 | -.00045 | -.00015 | .32215 |

RUN NO. 340/ 0 RWL = 3.08 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|----------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.996 | -.020 | -5.93150 | -.01980 | .12810 | -.01150 | -.01990 | -.12800 | .09250 | -.00138 | .00240 | -.15490 |
| 1.996 | 1.995 | -5.92900 | .04990 | .12730 | -.01970 | .05380 | -.12560 | .08760 | -.00050 | .00230 | -.38880 |
| 1.996 | 4.020 | -5.92790 | .12370 | .13170 | -.02680 | .13260 | -.12270 | .08340 | -.00090 | .00200 | -.93920 |
| 1.996 | 6.082 | -5.92800 | .19400 | .14110 | -.03380 | .20790 | -.11980 | .07958 | -.00280 | .00188 | 1.37450 |
| 1.996 | 8.145 | -5.92780 | .26430 | .15780 | -.03890 | .28390 | -.11880 | .07498 | -.00520 | .00160 | 1.67470 |
| 1.996 | 10.202 | -5.92520 | .33470 | .17860 | -.04190 | .36110 | -.11640 | .07170 | -.00580 | .00210 | 1.87940 |
| 1.996 | 12.239 | -5.92480 | .40370 | .20400 | -.04740 | .43770 | -.11380 | .07140 | -.00710 | .00240 | 1.97830 |
| 1.996 | 14.332 | -5.92330 | .47490 | .23530 | -.04900 | .51840 | -.11040 | .06900 | -.00870 | .00270 | 2.01950 |
| 1.996 | 16.468 | -5.92260 | .54490 | .27180 | -.05450 | .59860 | -.10620 | .06590 | -.01120 | .00280 | 2.00500 |
| 1.996 | 18.548 | -5.92340 | .61570 | .31420 | -.05780 | .68360 | -.10210 | .06320 | -.01440 | .00260 | 1.95930 |
| 1.996 | 20.569 | -5.92080 | .68410 | .36340 | -.05700 | .78820 | -.09900 | .05950 | -.01688 | .00280 | 1.88260 |
| 1.996 | 22.648 | -5.91880 | .74910 | .41730 | -.05100 | .90900 | -.09570 | .05948 | -.01820 | .00330 | 1.79490 |
| 1.996 | 24.710 | -5.91810 | .81570 | .47810 | -.05370 | .94090 | -.09330 | .05098 | -.01988 | .00380 | 1.70630 |
| 1.996 | 26.733 | -5.91490 | .84720 | .51030 | -.05568 | .98480 | -.09180 | .05020 | -.02000 | .00400 | 1.66040 |
| 1.996 | GRADIENT | -.00089 | .03552 | .00090 | -.00428 | .03775 | -.00131 | -.00225 | -.00055 | -.00010 | -.27079 |

(RE7056) (02 AUG 75)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALLRON = .300 BOFLAP = -7.170

TABLATED DATA - OAI61 (ARC 11-97-87-084)
ARC 11-97-87-084 OAI61 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN. NO. 25V 0 RV/L = 4.02 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|---------|---------|---------|---------|---------|--------|----------|
| .550 | .090 | -1.84650 | -.05450 | .03610 | -.05450 | .05150 | .03460 | -.00260 | .00120 | -1.06010 |
| .551 | 2.125 | -1.84910 | .03890 | .03000 | -.04070 | .05880 | .03290 | -.00280 | .00170 | -.75440 |
| .551 | 4.171 | -1.83970 | 1.2340 | .02960 | 1.3700 | .04460 | .03390 | -.00240 | .00170 | 2.44950 |
| .551 | 6.233 | -1.84630 | .22970 | .02810 | .23500 | .03560 | .03430 | -.00200 | .00240 | 3.77210 |
| .551 | 8.308 | -1.84710 | .33390 | .02700 | .34080 | .02300 | .03338 | -.00260 | .00330 | 4.64010 |
| .551 | 10.404 | -1.84400 | .44170 | .02280 | .45070 | .00830 | .03230 | -.00290 | .00520 | 4.93020 |
| .551 | 12.534 | -1.84400 | .54620 | .02390 | .55790 | .00710 | .03450 | -.00260 | .00610 | 4.79410 |
| .551 | 14.605 | -1.79950 | .65970 | .02040 | .67790 | -.01440 | .03620 | -.00390 | .00530 | 4.20090 |
| .551 | 16.721 | -1.86270 | .74740 | .01690 | .77710 | -.01090 | .04420 | -.00450 | .00210 | 3.50740 |
| .551 | 18.835 | -1.86540 | .84140 | .01200 | .88700 | -.00480 | .04060 | -.00360 | .00170 | 2.98480 |
| .551 | 20.941 | -1.85960 | .94340 | .00420 | 1.00010 | -.00060 | .04140 | -.00330 | .00050 | 2.61750 |
| .551 | 23.055 | -1.84930 | 1.04840 | .00900 | 1.10600 | -.00510 | .04450 | -.00240 | .00050 | 2.36040 |
| .551 | 25.082 | -1.82490 | 1.07620 | .00250 | 1.18590 | -.00120 | .04270 | -.00070 | .00450 | 2.15930 |
| .551 | 26.051 | -1.78350 | 1.07780 | .03790 | 1.19720 | -.00511 | .03988 | -.00020 | .00380 | 2.06720 |
| GRADIENT | | .00167 | .04604 | -.00012 | .04692 | -.00163 | -.00017 | -.00085 | .00012 | .85989 |

RUN. NO. 338/ 0 RV/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|----------|---------|---------|---------|---------|---------|---------|--------|----------|
| 1.556 | .031 | -2.54540 | -.01920 | .01030 | -.01910 | .13940 | .03300 | -.00088 | .00100 | -1.13770 |
| 1.556 | 2.019 | -2.54570 | .07160 | -.00570 | .07650 | .13710 | .03190 | -.00040 | .00110 | .51280 |
| 1.556 | 4.098 | -2.54550 | 1.6800 | -.02190 | .17910 | .13460 | .03040 | .00020 | .00140 | 1.14320 |
| 1.556 | 6.170 | -2.54500 | .26070 | .03680 | .27650 | .13220 | .02900 | .00078 | .00170 | 1.61780 |
| 1.556 | 8.240 | -2.54650 | .35160 | -.04880 | .37410 | .13050 | .03080 | .00090 | .00170 | 1.92370 |
| 1.556 | 10.306 | -2.54430 | .43370 | -.05780 | .46420 | .12880 | .02990 | .00100 | .00150 | 2.06630 |
| 1.556 | 12.347 | -2.54450 | .51210 | -.06390 | .55200 | .12690 | .03130 | .00120 | .00140 | 2.11140 |
| 1.556 | 14.439 | -2.54140 | .59200 | -.07230 | .64320 | .12390 | .03230 | .00180 | .00150 | 2.11620 |
| 1.556 | 16.581 | -2.54020 | .67230 | -.07840 | .73760 | .12190 | .03330 | .00210 | .00140 | 2.05610 |
| 1.556 | 18.676 | -2.53970 | .75210 | -.08270 | .83370 | .11790 | .03248 | .00380 | .00140 | 1.88620 |
| 1.556 | 20.709 | -2.53640 | .83100 | -.08720 | .93150 | .11420 | .02980 | .00540 | .00160 | 1.80480 |
| 1.556 | 22.795 | -2.53390 | .90050 | -.09820 | 1.02360 | .11140 | .02720 | .00700 | .00160 | 1.69890 |
| 1.556 | 24.850 | -2.53210 | .96330 | -.08880 | 1.11240 | .10960 | .02620 | .00870 | .00180 | 1.65060 |
| 1.556 | 25.891 | -2.52850 | .99580 | -.08888 | 1.16050 | .10860 | .02350 | .00948 | .00170 | 1.65060 |
| GRADIENT | | -.00002 | .04603 | -.00792 | .04849 | -.00118 | -.00064 | .00225 | .00010 | .51487 |

(RE7056) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-894)
ARC 11-97-87-054 0A161 ORBITER.

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ATLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0'
LREF = 474.8000 IN. YMRP = .0000 IN. Y0'
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0'
SCALE = .0300

RUN NO. 341/ 0 RML = 3.05 GRADIENT INTERVAL = -5.08/ 5.00

| MACH | ALPHA | BETA | CL | CLM | CM | CA | CY | CYN | CEB | L/D |
|-------|--------|----------|--------|---------|---------|---------|---------|--------|---------|---------|
| 1.996 | -.022 | -2.88920 | .02220 | -.00790 | -.02220 | .12956 | .03670 | .00610 | .00100 | .17120 |
| 1.996 | 1.963 | -2.89100 | .04970 | -.01648 | .09410 | .12658 | .03600 | .00098 | .00070 | .98740 |
| 1.996 | 4.024 | -2.88870 | .12276 | -.02520 | .13170 | .12340 | .03398 | .00120 | .00070 | .92730 |
| 1.996 | 6.082 | -2.88920 | .19330 | -.03230 | .20720 | .12060 | .03160 | .00228 | .00060 | 1.36190 |
| 1.996 | 8.143 | -2.88890 | .26200 | -.03700 | .28160 | .11840 | .03170 | .00240 | .00060 | 1.67 |
| 1.996 | 10.201 | -2.88960 | .33210 | -.04050 | .35940 | .11640 | .03210 | .00280 | .00080 | 1.68 |
| 1.996 | 12.234 | -2.88850 | .40120 | -.04340 | .43510 | .11350 | .03230 | .00300 | .00100 | 1.68 |
| 1.996 | 14.322 | -2.88650 | .47220 | -.04680 | .51550 | .11050 | .03230 | .00350 | .00110 | 1.68 |
| 1.996 | 16.455 | -2.88490 | .54190 | -.04970 | .59660 | .10710 | .03130 | .00450 | .00130 | 1.99450 |
| 1.996 | 18.540 | -2.88260 | .61260 | -.05299 | .68090 | .10370 | .02930 | .00590 | .00120 | 1.94560 |
| 1.996 | 20.559 | -2.88050 | .68100 | -.05620 | .76530 | .10120 | .02720 | .00750 | .00100 | 1.87320 |
| 1.996 | 22.642 | -2.87670 | .74780 | -.05950 | .85110 | .09780 | .02500 | .00860 | .00100 | 1.76960 |
| 1.996 | 24.702 | -2.87470 | .81470 | -.06340 | .94000 | .09410 | .02310 | .00940 | .00110 | 1.70310 |
| 1.996 | 25.727 | -2.87310 | .84500 | -.06410 | .98250 | .09230 | .02170 | .01058 | .00130 | 1.65800 |
| 1.996 | | -.00012 | .03582 | -.08426 | .03804 | -.00191 | -.00069 | .00027 | -.00007 | .27148 |

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TABULATED DATA - OAI81 (ARC 11-87-87-084)
ARC 11-87-87-084 OAI81 ORBITTER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 379.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

RUN NO. 257 0 RVAL = 4.02 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|------|----------|--------|---------|--------|--------|---------|---------|--------|---------|--------|----------|
| .560 | .085 | .19720 | -.05790 | .05230 | .03180 | -.05780 | .05240 | .00290 | .00010 | .00010 | -1.10720 |
| .560 | 2.122 | .20750 | .03380 | .05170 | .03210 | .03290 | .05040 | .00380 | .00010 | .00020 | .65380 |
| .561 | 4.171 | .20970 | .12920 | .05440 | .03210 | .13290 | .04490 | .00360 | .00020 | .00020 | 2.37480 |
| .560 | 6.231 | .20960 | .22880 | .06120 | .03020 | .23410 | .03600 | .00240 | .00030 | .00010 | 3.73790 |
| .561 | 8.311 | .21690 | .33280 | .07120 | .02820 | .33980 | .02330 | .00350 | .00020 | .00010 | 4.61460 |
| .562 | 10.397 | .21480 | .43780 | .08900 | .02500 | .44650 | .00850 | .00340 | .00000 | .00020 | 4.91970 |
| .561 | 12.478 | .21150 | .54330 | .11330 | .02600 | .55490 | .00670 | .00420 | .00020 | .00040 | 4.79310 |
| .561 | 14.583 | .22740 | .65130 | .15470 | .02220 | .66930 | -.01420 | .00280 | .00110 | .00000 | 4.20940 |
| .561 | 16.688 | .22060 | .74300 | .21160 | .02020 | .77250 | -.01070 | .00810 | .00168 | .00000 | 3.51100 |
| .569 | 18.794 | .21940 | .84300 | .28170 | .01490 | .88880 | -.00490 | .00740 | .00040 | .00250 | 2.98260 |
| .561 | 20.901 | .20740 | .93620 | .35730 | .00490 | 1.00270 | -.00270 | .00588 | .00000 | .00380 | 2.61990 |
| .559 | 22.986 | .20560 | 1.02260 | .43220 | .00920 | 1.11010 | -.00150 | .01230 | .00000 | .00590 | 2.36620 |
| .580 | 25.087 | .21320 | 1.08100 | .50250 | .02290 | 1.19680 | -.00500 | .00900 | .00010 | .00450 | 2.16130 |
| .561 | 26.046 | .16600 | 1.08100 | .52320 | .04120 | 1.20100 | -.00450 | .01128 | .00010 | .00350 | 2.06630 |
| | GRADIENT | .00306 | .04578 | .00051 | .00007 | .04667 | -.00184 | .00017 | -.00002 | .00002 | .85214 |

RUN NO. 342 0 RVAL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|---------|--------|--------|--------|---------|
| 1.996 | -.323 | -.84120 | -.02370 | .12850 | -.00590 | -.02370 | .12840 | .00380 | .00090 | .00020 | .18430 |
| 1.996 | 1.955 | -.84220 | .04980 | .12700 | -.01550 | .05410 | .12920 | .00450 | .00060 | .00020 | .39250 |
| 1.996 | 4.020 | -.84280 | .13220 | .13180 | -.02380 | .13220 | .12280 | .00460 | .00050 | .00000 | .93930 |
| 1.996 | 6.080 | -.84260 | .19300 | .14140 | -.03160 | .20696 | .12010 | .00450 | .00040 | .00010 | 1.36520 |
| 1.996 | 8.139 | -.84160 | .26030 | .15700 | -.03570 | .27998 | .11860 | .00438 | .00040 | .00000 | 1.65750 |
| 1.996 | 10.197 | -.84270 | .33220 | .17850 | -.04030 | .35658 | .11680 | .00510 | .00020 | .00000 | 1.86140 |
| 1.996 | 12.231 | -.84080 | .39930 | .20250 | -.04270 | .43310 | .11330 | .00580 | .00030 | .00010 | 1.97750 |
| 1.996 | 14.321 | -.83910 | .47280 | .23450 | -.04580 | .51610 | .11030 | .00640 | .00030 | .00010 | 2.01580 |
| 1.996 | 16.459 | -.83750 | .54750 | .27330 | -.04940 | .60250 | .10700 | .00700 | .00020 | .00010 | 2.08337 |
| 1.996 | 18.545 | -.83590 | .61910 | .31740 | -.05230 | .68790 | .10400 | .00790 | .00010 | .00010 | 1.95040 |
| 1.996 | 20.646 | -.83030 | .75440 | .42050 | -.05950 | .85810 | .09760 | .00850 | .00060 | .00010 | 1.79400 |
| 1.996 | 22.706 | -.82670 | .81830 | .48880 | -.06390 | .94440 | .09488 | .00870 | .00080 | .00000 | 1.70190 |
| 1.996 | 24.731 | -.82420 | .86360 | .51510 | -.06640 | .98260 | .09358 | .00860 | .00070 | .00000 | 1.65700 |
| 1.996 | GRADIENT | -.00040 | .03633 | .00063 | -.00442 | .03856 | -.00138 | .00020 | .00000 | .00000 | .27685 |

TABLATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2680.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|----------|---------|---------|---------|---------|---------|---------|--------|---------|----------|
| .561 | .100 | 2.25050 | -.05720 | .03070 | -.05720 | .05160 | -.03570 | .00200 | -.00170 | -1.11120 |
| .561 | 2.133 | 2.28040 | .03330 | .03110 | .05510 | .05010 | -.03580 | .00200 | -.00230 | .64800 |
| .561 | 4.183 | 2.29430 | .12840 | .03040 | .13210 | .04490 | -.03040 | .00210 | -.00290 | 2.39870 |
| GRADIENT | GRADIENT | .01059 | .04543 | -.00007 | .04633 | -.00184 | .00130 | .00002 | -.00029 | .64923 |

| MACH | ALPHA | BETA | CL | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.996 | -.027 | 1.22520 | -.02100 | -.00598 | -.02110 | 1.2670 | -.03950 | -.00030 | -.00070 | 1.6350 |
| 1.996 | 1.954 | 1.23800 | .05200 | -.01950 | .05840 | 1.2650 | -.02980 | -.00098 | -.00060 | 4.9530 |
| 1.996 | 4.026 | 1.22270 | .12350 | -.02400 | .13250 | 1.2620 | -.02600 | -.00150 | -.00050 | 9.3380 |
| 1.996 | 6.083 | 1.22200 | .19400 | -.03150 | .20750 | 1.2050 | -.02400 | -.00200 | -.00050 | 1.36780 |
| 1.996 | 9.141 | 1.23130 | .26170 | -.03660 | .28130 | 1.1650 | -.02380 | -.00240 | -.00070 | 1.65840 |
| 1.996 | 10.202 | 1.26820 | .33110 | -.03950 | .35740 | 1.1670 | -.02360 | -.00260 | -.00100 | 1.97950 |
| 1.996 | 12.239 | 1.26760 | .40300 | -.04300 | .43700 | 1.1030 | -.02410 | -.00320 | -.00100 | 2.01870 |
| 1.996 | 14.324 | 1.26890 | .47530 | -.04650 | .51670 | 1.0700 | -.01980 | -.00400 | -.00110 | 1.99960 |
| 1.996 | 16.460 | 1.26700 | .54540 | -.04990 | .60030 | 1.0390 | -.01750 | -.00480 | -.00120 | 1.94500 |
| 1.996 | 18.545 | 1.27830 | .61420 | -.05300 | .68270 | 1.0110 | -.01500 | -.00530 | -.00110 | 1.87350 |
| 1.996 | 20.561 | 1.28240 | .68020 | -.05600 | .76440 | .9800 | -.01210 | -.00630 | -.00100 | 1.78950 |
| 1.996 | 22.641 | 1.27670 | .74740 | -.05920 | .85070 | .9470 | -.01110 | -.00770 | -.00110 | 1.70080 |
| 1.996 | 24.702 | 1.27740 | .81450 | -.06398 | .94010 | .9280 | -.00980 | -.00820 | -.00130 | 1.65840 |
| 1.996 | 25.728 | 1.28950 | .84540 | -.06450 | .98320 | .90130 | -.00980 | -.00810 | -.00130 | 1.65840 |
| GRADIENT | GRADIENT | -.00066 | .03565 | -.00422 | .03789 | -.00135 | .00111 | -.00030 | -.00002 | 2.7067 |

TABULATED DATA - OA161 (ARC 11-87-89A)
 ARC 11-87-89-09A OA161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0080 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = 5.008 ELEVON = .000
 AIRLON = .080 BOFLAP = -7.178

RUN: NG. 51/ 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|--------|--------|--------|---------|--------|---------|--------|--------|---------|
| .900 | .076 | 5.37850 | .05970 | .07060 | .03770 | .05960 | .07060 | -.10110 | .01020 | .00040 | -.84640 |
| .901 | 2.1771 | 5.39730 | .06060 | .07250 | .02930 | .06330 | .07010 | -.10170 | .01000 | .00200 | -.83690 |
| .899 | 4.282 | 5.40810 | .17610 | .08310 | .02080 | .18180 | .08970 | -.10060 | .00920 | .00310 | 2.11870 |
| .900 | 6.406 | 5.40610 | .28040 | .10190 | .01810 | .29000 | .07000 | .09510 | .00780 | .00540 | 2.75120 |
| .899 | 8.525 | 5.41360 | .37520 | .12480 | .01880 | .38960 | .06780 | .09340 | .00560 | .00740 | 3.00710 |
| .898 | 10.654 | 5.40090 | .46980 | .15780 | .01700 | .48180 | .06900 | .08710 | .00320 | .00730 | 2.93560 |
| .897 | 12.794 | 5.40360 | .55500 | .19780 | .00950 | .58500 | .06990 | .08370 | .00110 | .00810 | 2.80660 |
| .898 | 14.939 | 5.42010 | .63300 | .24780 | .00500 | .69510 | .07110 | .08460 | .00470 | .00710 | 2.63580 |
| .900 | 17.079 | 5.43580 | .74450 | .30130 | .00400 | .80020 | .06940 | .07720 | .01020 | .00690 | 2.47100 |
| .896 | 19.233 | 5.45040 | .83480 | .36570 | .00500 | .90870 | .07030 | .07340 | .01540 | .00860 | 2.28270 |
| .898 | 21.358 | 5.45550 | .89410 | .42980 | .00900 | .98740 | .07000 | .07090 | .01870 | .01260 | 2.10480 |
| .898 | 23.446 | 5.45730 | .94730 | .48390 | .06490 | 1.03410 | .07890 | .05258 | .02410 | .02400 | 1.89580 |
| .896 | 25.472 | 5.45300 | .90720 | .52770 | .10490 | 1.04380 | .08170 | .05850 | .01840 | .01590 | 1.73570 |
| .897 | 26.414 | 5.46810 | .92110 | .54900 | .10580 | 1.06920 | .08190 | .06650 | .01280 | .01320 | 1.67780 |
| GRADIENT | | .06703 | .05608 | .00297 | .00402 | .05739 | .80021 | .00012 | .00024 | .00085 | .70488 |

RUN: NG. 333/ 0 RV/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|----------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 1.750 | -.075 | 4.73020 | -.04600 | .13580 | -.00080 | -.01610 | -.13690 | -.08410 | .00030 | -.00240 | -.11750 |
| 1.750 | 1.917 | 4.78360 | .06718 | .13530 | -.01360 | .07188 | .13300 | -.08000 | -.00110 | -.00240 | -.49620 |
| 1.750 | 3.986 | 4.78680 | .15870 | .14100 | -.02950 | .16210 | .13600 | -.07548 | .00260 | .00230 | 1.08290 |
| 1.750 | 6.048 | 4.78250 | .23110 | .15250 | -.03480 | .24590 | .12730 | .07148 | .00418 | .00220 | 1.51320 |
| 1.750 | 8.114 | 4.78360 | .30988 | .17080 | -.04288 | .33080 | .12330 | .06970 | .00540 | .00220 | 1.81450 |
| 1.750 | 10.172 | 4.78750 | .38610 | .19440 | -.04900 | .41440 | .12320 | .06640 | .00820 | .00270 | 1.98500 |
| 1.750 | 12.211 | 4.79080 | .46270 | .22300 | -.05540 | .49960 | .12090 | .06540 | .00290 | .00290 | 2.06680 |
| 1.750 | 16.436 | 4.79670 | .61350 | .30010 | -.06370 | .67330 | .11430 | .06010 | .01180 | .00410 | 2.04410 |
| 1.750 | 18.525 | 4.80260 | .68870 | .34620 | -.06720 | .76300 | .10950 | .05510 | .01460 | .00290 | 1.98900 |
| 1.750 | 20.545 | 4.80940 | .75940 | .39780 | -.07200 | .85070 | .10600 | .05230 | .01750 | .00300 | 1.90920 |
| 1.750 | 22.630 | 4.81330 | .82860 | .45750 | -.07470 | .94098 | .10350 | .05000 | .01990 | .00350 | 1.81110 |
| 1.750 | 24.689 | 4.82020 | .89280 | .52090 | -.07760 | 1.02880 | .10040 | .04970 | .02160 | .00370 | 1.71400 |
| 1.750 | 25.716 | 4.81870 | .92690 | .55870 | -.07880 | 1.07670 | .09840 | .04590 | .02200 | .00390 | 1.66500 |
| GRADIENT | | -.00084 | .04154 | .00129 | -.00613 | .04388 | -.00143 | .00222 | -.00071 | .00002 | .29234 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.170

RUN NO. 344/ 0 RVL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1.996 | -.045 | 4.27130 | -.01810 | .12750 | -.01050 | -.01820 | .12750 | -.08830 | .00270 | -.00260 | 1.4200 |
| 1.996 | 1.960 | 4.26700 | .05550 | .12700 | -.01990 | .05980 | .12500 | -.06200 | .00150 | -.00240 | 4.5720 |
| 1.996 | 4.016 | 4.25280 | .12430 | .13168 | -.02610 | .13330 | .12260 | -.07598 | -.00110 | -.00220 | 9.4450 |
| 1.996 | 6.083 | 4.23800 | .19580 | .14180 | -.03300 | .20980 | .12020 | -.07320 | -.00198 | -.00220 | 1.38150 |
| 1.996 | 8.143 | 4.22330 | .26530 | .15330 | -.03750 | .28498 | .11820 | -.06980 | -.00350 | -.00210 | 1.87998 |
| 1.996 | 10.198 | 4.20770 | .33330 | .17790 | -.04120 | .35950 | .11600 | -.06720 | .00450 | -.00250 | 1.87400 |
| 1.996 | 12.240 | 4.19180 | .40480 | .20420 | -.04460 | .43898 | .11390 | -.06400 | -.00590 | -.00280 | 1.98180 |
| 1.996 | 14.321 | 4.17530 | .47630 | .23470 | -.04750 | .51950 | .10960 | -.06040 | -.00720 | -.00310 | 2.02910 |
| 1.996 | 15.456 | 4.15880 | .54880 | .27190 | -.05040 | .60040 | .10610 | -.05680 | -.00830 | -.00330 | 2.08750 |
| 1.996 | 16.540 | 4.14160 | .61610 | .31540 | -.05490 | .68440 | .10310 | -.05350 | -.00920 | -.00350 | 1.95350 |
| 1.996 | 18.590 | 4.12370 | .68180 | .36270 | -.05980 | .78370 | .10020 | -.04850 | -.01040 | -.00370 | 1.87970 |
| 1.996 | 20.635 | 4.10500 | .74790 | .41620 | -.06500 | .85050 | .09638 | -.04710 | -.01150 | -.00380 | 1.79690 |
| 1.996 | 22.635 | 4.08570 | .81460 | .47700 | -.06990 | .93890 | .09321 | -.04730 | -.01250 | -.00390 | 1.70660 |
| 1.996 | 24.688 | 4.06490 | .84490 | .50900 | -.07460 | .98210 | .09181 | -.04720 | -.01340 | -.00400 | 1.65000 |
| 1.996 | 25.784 | 4.04250 | .84490 | .50900 | -.07930 | .98210 | .09181 | -.04720 | -.01430 | -.00410 | 1.60000 |
| 1.996 | GRADIENT | -.00467 | .03506 | .00101 | -.00431 | .03730 | -.0012 | .00281 | -.00059 | -.00010 | .26746 |

RUN NO. 356/ 0 RVL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | CL | CD | CLM | CN | CA | CY | CYN | CBL | L/D |
|-------|----------|---------|--------|--------|---------|--------|---------|---------|---------|---------|---------|
| 2.249 | -.059 | 4.26720 | .02398 | .11980 | -.01990 | .02388 | .11980 | -.07888 | .00260 | -.00220 | 1.9960 |
| 2.249 | 1.982 | 4.25900 | .09120 | .12080 | -.02590 | .09598 | .11760 | -.07298 | .00130 | -.00210 | 7.5640 |
| 2.249 | 4.008 | 4.25610 | .15130 | .12570 | -.02790 | .15970 | .11480 | -.06730 | -.00040 | -.00200 | 1.20370 |
| 2.249 | 6.059 | 4.25710 | .21720 | .13630 | -.03050 | .23040 | .11260 | -.06330 | -.00230 | -.00190 | 1.59430 |
| 2.249 | 8.118 | 4.25830 | .28370 | .15240 | -.03220 | .30240 | .11080 | -.06200 | -.00310 | -.00240 | 1.86150 |
| 2.249 | 10.168 | 4.25970 | .34170 | .16940 | -.03370 | .37430 | .10970 | -.05570 | -.00400 | -.00310 | 2.11520 |
| 2.249 | 12.208 | 4.26200 | .40170 | .18940 | -.04000 | .45430 | .10280 | -.05220 | -.00710 | -.00320 | 2.11890 |
| 2.249 | 14.269 | 4.26480 | .46270 | .21070 | -.04306 | .52930 | .09660 | -.04850 | -.00890 | -.00350 | 2.07510 |
| 2.249 | 16.325 | 4.26740 | .52340 | .23670 | -.04620 | .60510 | .09620 | -.04510 | -.01040 | -.00350 | 2.00980 |
| 2.249 | 18.462 | 4.27020 | .58400 | .26670 | -.04820 | .68510 | .09000 | -.04520 | -.01250 | -.00410 | 1.85370 |
| 2.249 | 20.553 | 4.27320 | .64460 | .29930 | -.05050 | .76950 | .08710 | -.04460 | -.01310 | -.00440 | 1.73820 |
| 2.249 | 22.605 | 4.27630 | .70520 | .33580 | -.05250 | .83750 | .08540 | -.04480 | -.01310 | -.00440 | 1.72230 |
| 2.249 | 24.605 | 4.28330 | .76600 | .38010 | -.05700 | .95220 | .08540 | -.04480 | -.01310 | -.00440 | 1.72230 |
| 2.249 | GRADIENT | -.08125 | .03125 | .00143 | -.00196 | .03333 | -.00123 | .00285 | -.00079 | -.00005 | .24620 |

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TABULATED DATA - 0A161 (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A161 ORBITER - WING + RAKES

(AETRO11 (02 AUG 76)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2890.0000 SO.FT. XMRP = 1076.6800 IN. XQ.
 LREF = 474.8000 IN. YMRP = 0.0000 IN. YQ.
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ.
 SCALE = 0.300

BETA = .000 BOFLAP = -7.170

RUN NO. 27 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|--------|--------|--------|--------|--------|
| .595 | .059 | .16200 | 2590.10001 | 2029.20000 | 1.04460 | 1.04420 | .98700 | .97430 | .94370 | .93720 | .93110 |
| .595 | 4.022 | .20740 | 2590.10001 | 2030.50001 | 1.04890 | 1.03450 | .98560 | .98180 | .94650 | .93910 | .93610 |
| .595 | 8.054 | .21740 | 2590.10001 | 2031.30800 | 1.04670 | 1.03040 | .98330 | .98100 | .94698 | .93770 | .93780 |
| .595 | 12.146 | .20890 | 2590.10001 | 2031.30800 | 1.03860 | 1.02180 | .98000 | .98410 | .93500 | .93600 | .93640 |
| .595 | 16.684 | .23170 | 2590.79999 | 2029.20800 | 1.02210 | 1.00530 | .98231 | .98190 | .93020 | .91910 | .93810 |
| .595 | 20.639 | .23450 | 2590.79999 | 2030.60001 | .98860 | .98110 | .98334 | .97480 | .91880 | .91370 | .91090 |
| .597 | GRADIENT | .04149 | -.06002 | .35418 | .97170 | .95680 | .97111 | .96810 | .90860 | .90730 | .90810 |
| | | | | | .00124 | .00083 | .00213 | .00190 | .00048 | .00048 | .00126 |

RUN NO. 37 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .697 | .057 | .16540 | 2334.00000 | 1696.70000 | 1.06530 | 1.04760 | .98941 | .96580 | .92910 | .91020 | .92640 |
| .699 | 4.018 | .20470 | 2334.00000 | 1684.60001 | 1.07230 | 1.05190 | .99511 | .97970 | .92630 | .91490 | .93920 |
| .698 | 8.073 | .21220 | 2334.70001 | 1686.00000 | 1.07840 | 1.04790 | 1.00551 | .98110 | .92470 | .91170 | .94100 |
| .698 | 12.375 | .20900 | 2334.70001 | 1686.80000 | 1.06000 | 1.03900 | 1.00661 | .98720 | .91500 | .89570 | .93890 |
| .699 | 16.532 | .23040 | 2334.78801 | 1686.00000 | 1.03820 | 1.01450 | 1.00061 | .98410 | .90280 | .89230 | .91620 |
| .697 | 20.705 | .22320 | 2335.39999 | 1686.20000 | 1.00680 | .98320 | .98111 | .97940 | .88620 | .88320 | .88230 |
| .697 | GRADIENT | .25760 | 2335.39999 | 1686.20000 | .96610 | .94540 | .97821 | .96870 | .87840 | .87810 | .88120 |
| | | .00992 | .00000 | -.53810 | .00177 | .00109 | .00321 | .00326 | .00162 | .00119 | .00273 |

RUN NO. 47 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .799 | .041 | .16490 | 2200.29999 | 1444.70000 | 1.09860 | 1.07300 | .99860 | .97080 | .89240 | .88070 | .90100 |
| .799 | 4.013 | .20160 | 2197.50000 | 1442.60001 | 1.10630 | 1.07980 | 1.01110 | .98390 | .89980 | .88560 | .94440 |
| .798 | 8.083 | .21090 | 2198.89999 | 1445.39999 | 1.10310 | 1.07290 | 1.02270 | .98788 | .89800 | .87930 | .92180 |
| .797 | 12.400 | .21090 | 2198.20001 | 1445.10001 | 1.08990 | 1.05650 | 1.02700 | .98640 | .88398 | .86160 | .94450 |
| .797 | 16.584 | .23740 | 2198.89999 | 1445.10001 | 1.05980 | 1.02780 | 1.02370 | .98870 | .86590 | .85520 | .89010 |
| .795 | 20.778 | .24530 | 2198.89999 | 1449.70000 | 1.02810 | .98898 | 1.00930 | .98760 | .85170 | .85370 | .85130 |
| .795 | GRADIENT | .25810 | 2198.20801 | 1447.60001 | .97440 | .94400 | 1.00360 | .98180 | .83690 | .83590 | .84250 |
| | | .00924 | -.70491 | -.52867 | .00184 | .00151 | .04315 | .00330 | .00186 | .00123 | .00337 |

(AE7RQ) (02 AUG 76)

ARC 11-87-87-09# 0A181 ORBITER - WING + RAKES

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0800 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 BOFLAP = -7.170

RUN NO. 5/ 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .902 | .028 | 2108.39999 | 1243.89999 | 1.15370 | 1.12080 | 1.05600 | 1.01680 | .84320 | .82980 | .85880 |
| .903 | 4.049 | 2109.39999 | 1243.20000 | 1.16280 | 1.12590 | 1.05910 | 1.01450 | .85860 | .84040 | .86850 |
| .904 | 8.097 | 2109.10001 | 1246.00000 | 1.15640 | 1.11650 | 1.07590 | 1.02430 | .86230 | .82560 | .88430 |
| .900 | 12.443 | 2109.10001 | 1246.70000 | 1.14040 | 1.09740 | 1.08860 | 1.03940 | .84280 | .81300 | .87750 |
| .900 | 16.649 | 2109.79999 | 1247.39999 | 1.11720 | 1.06150 | 1.07680 | 1.04660 | .81880 | .79700 | .83530 |
| .898 | 20.865 | 2109.79999 | 1250.30000 | 1.06370 | 1.01750 | 1.06570 | 1.04620 | .80320 | .80380 | .82310 |
| .897 | 25.105 | 2109.79999 | 1251.00000 | 1.00480 | .95970 | 1.06220 | 1.03820 | .78280 | .77570 | .79620 |
| GRADIENT | | .00002 | -.17546 | .00228 | .00128 | .00003 | -.00058 | .00388 | .00266 | .00594 |

RUN NO. 6/ 0 RNL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .981 | .031 | 2077.29998 | 1121.30000 | 1.26650 | 1.18700 | 1.13681 | 1.09880 | .74258 | .72720 | .75780 |
| .982 | 4.031 | 2078.00000 | 1120.60001 | 1.23500 | 1.19090 | 1.13023 | 1.08608 | .77230 | .75540 | .80140 |
| .980 | 8.137 | 2078.00000 | 1123.39999 | 1.22650 | 1.17950 | 1.15013 | 1.09220 | .76210 | .73800 | .79980 |
| .978 | 12.528 | 2078.00000 | 1123.39999 | 1.21030 | 1.15510 | 1.16483 | 1.10960 | .75410 | .73250 | .79170 |
| .976 | 16.760 | 2078.50000 | 1124.89979 | 1.17200 | 1.11650 | 1.14343 | 1.11210 | .75320 | .73440 | .78840 |
| .975 | 21.008 | 2078.00000 | 1126.39998 | 1.12270 | 1.06430 | 1.13480 | 1.11580 | .75060 | .74730 | .76020 |
| .974 | 25.240 | 2077.29999 | 1130.60001 | 1.05700 | 1.00080 | 1.13473 | 1.10920 | .75390 | .75370 | .72940 |
| GRADIENT | | .17497 | -.17497 | .00212 | .00097 | -.00140 | -.00320 | .00745 | .00705 | .00840 |

RUN NO. 7/ 0 RNL = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.104 | .023 | 2034.80000 | 947.66000 | 1.37110 | 1.32090 | 1.29520 | 1.26160 | .70680 | .69100 | .71930 |
| 1.100 | 4.040 | 2030.60001 | 951.10000 | 1.37500 | 1.31780 | 1.27750 | 1.23370 | .71800 | .70180 | .74990 |
| 1.097 | 8.161 | 2036.20000 | 953.96000 | 1.36430 | 1.30200 | 1.30890 | 1.24240 | .71680 | .70360 | .75320 |
| 1.097 | 12.546 | 2032.70000 | 956.32000 | 1.33990 | 1.27020 | 1.31220 | 1.24640 | .68690 | .65600 | .70420 |
| 1.097 | 16.786 | 2034.80000 | 956.73000 | 1.29570 | 1.27980 | 1.27980 | 1.25580 | .67780 | .65980 | .68620 |
| 1.093 | 21.030 | 2035.50000 | 961.64000 | 1.23670 | 1.15860 | 1.26820 | 1.23440 | .66170 | .67720 | .67470 |
| 1.088 | 25.256 | 2032.00000 | 965.82800 | 1.16310 | 1.09060 | 1.26360 | 1.23460 | .62530 | .61370 | .60760 |
| GRADIENT | | -1.04553 | .85634 | .00097 | -.00077 | -.00441 | -.00695 | .00279 | .00269 | .00762 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER - WING + RAKES

(AETRO1) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 373.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = .000 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.195 | .009 | .16020 | 2007.89999 | 832.47000 | 1.44220 | 1.37270 | 1.42210 | 1.38990 | .66620 | .66620 | .64890 |
| 1.200 | 4.038 | .19350 | 2005.50000 | 827.59000 | 1.45030 | 1.36690 | 1.41020 | 1.35860 | .68100 | .68100 | .67650 |
| 1.199 | 8.158 | .20480 | 2007.20000 | 828.29000 | 1.44300 | 1.34950 | 1.46710 | 1.35780 | .67560 | .67560 | .64050 |
| 1.195 | 12.545 | .20100 | 2008.60001 | 833.86000 | 1.41000 | 1.31160 | 1.38251 | 1.35440 | .63610 | .63610 | .61280 |
| 1.195 | 16.783 | .22220 | 2007.89999 | 833.86000 | 1.37580 | 1.27370 | 1.38251 | 1.35440 | .60830 | .60830 | .61230 |
| 1.191 | 21.027 | .22420 | 2007.89999 | 837.35000 | 1.31700 | 1.21198 | 1.37120 | 1.35880 | .59970 | .59970 | .60020 |
| 1.191 | 25.266 | .22070 | 2008.60001 | 839.44000 | 1.24530 | 1.15750 | 1.35251 | 1.32470 | .56190 | .56190 | .56760 |
| 1.190 | GRADIENT | .00829 | -.34746 | -1.21116 | .00201 | -.00144 | -.00293 | -.00777 | .00367 | .00367 | .01072 |

GRADIENT INTERVAL = -3.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.298 | -.004 | .16350 | 2014.30000 | 728.75000 | 1.54130 | 1.44270 | 1.54390 | 1.52240 | .61260 | .61260 | .63620 |
| 1.298 | 4.024 | .20220 | 2014.30000 | 728.75000 | 1.54410 | 1.42840 | 1.51170 | 1.44328 | .64380 | .64380 | .67710 |
| 1.297 | 8.151 | .18520 | 2015.00000 | 730.26000 | 1.53330 | 1.40670 | 1.58871 | 1.45380 | .63420 | .63420 | .65890 |
| 1.294 | 12.538 | .20390 | 2014.38000 | 732.40000 | 1.50570 | 1.35770 | 1.57220 | 1.45560 | .59860 | .59860 | .58970 |
| 1.294 | 16.776 | .22660 | 2015.00000 | 733.10000 | 1.46430 | 1.32320 | 1.46960 | 1.45870 | .56980 | .56980 | .56310 |
| 1.293 | 21.026 | .21860 | 2015.00000 | 734.48000 | 1.40320 | 1.28210 | 1.46440 | 1.45410 | .54630 | .54630 | .54890 |
| 1.290 | 25.269 | .22700 | 2015.77000 | 737.28000 | 1.33640 | 1.23680 | 1.42620 | 1.39310 | .53740 | .53740 | .54200 |
| 1.290 | GRADIENT | .00964 | .00001 | .00000 | .00073 | -.00355 | -.00799 | -.01966 | .00352 | .00352 | .01015 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.404 | -.022 | .14420 | 2039.10001 | 637.65000 | 1.65810 | 1.52960 | 1.60660 | 1.57758 | .60180 | .60180 | .59070 |
| 1.402 | 4.011 | .20200 | 2039.10001 | 639.12000 | 1.65350 | 1.51350 | 1.58800 | 1.52570 | .61660 | .61660 | .63960 |
| 1.400 | 8.144 | .21430 | 2039.80000 | 639.85000 | 1.63470 | 1.48230 | 1.66400 | 1.53190 | .60620 | .60620 | .64590 |
| 1.400 | 12.526 | .21020 | 2039.80000 | 641.32000 | 1.60120 | 1.44490 | 1.65480 | 1.50550 | .56820 | .56820 | .59990 |
| 1.397 | 16.769 | .22490 | 2039.80000 | 641.53000 | 1.55560 | 1.40510 | 1.64898 | 1.54250 | .52440 | .52440 | .50840 |
| 1.396 | 21.013 | .23100 | 2039.80000 | 644.27000 | 1.50070 | 1.36870 | 1.55740 | 1.53130 | .51560 | .51560 | .50520 |
| 1.394 | 25.266 | .20460 | 2039.80000 | 646.48000 | 1.43430 | 1.31710 | 1.48890 | 1.45800 | .50410 | .50410 | .47540 |
| 1.394 | GRADIENT | .01433 | .00000 | .36448 | -.00114 | -.00398 | -.00213 | -.01284 | .00367 | .00367 | .01212 |

(AETRO2) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 BOFLAP = -7.170

TABLATED DATA - OAK1 (ARC 11-57-87-09*)

ARC 11-97-87-09* OAK1 ORBITER - WING

REFERENCE DATA

SREF = 2590.0008 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0800 IN. YO
 BREF = 956.6600 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 282# 0 RVAL = 4.21 GRADIENT INTERVAL = -3.00/ 5.00

| BETA | PT | ALPHA | MACH | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|--------|------------|--------|------|---------|---------|--------|--------|--------|--------|--------|
| .18920 | 2520.00000 | .066 | .596 | 1.04680 | 1.03560 | .97860 | .97170 | .94500 | .93600 | .94980 |
| .23520 | 2519.29999 | 4.082 | .596 | 1.05130 | 1.04040 | .98560 | .97910 | .95030 | .94000 | .95730 |
| .28120 | 2520.70000 | 8.126 | .596 | 1.05000 | 1.03580 | .98770 | .98170 | .94980 | .93870 | .95670 |
| .32720 | 2520.00000 | 12.205 | .596 | 1.04210 | 1.02780 | .98660 | .98100 | .94920 | .92470 | .96020 |
| .37320 | 2520.00000 | 16.337 | .596 | 1.02600 | 1.01220 | .97500 | .97500 | .91410 | .91910 | .94920 |
| .41920 | 2520.00000 | 20.495 | .596 | 1.00470 | .99210 | .96880 | .96480 | .92150 | .91450 | .94920 |
| .46520 | 2520.00000 | 24.613 | .596 | .97670 | .96340 | .95030 | .94920 | .91190 | .89660 | .91080 |
| .51120 | 2520.00000 | | .597 | .00112 | .00120 | .00169 | .00184 | .00132 | .00100 | .00187 |

RUN NO. 283# 0 RVAL = 4.31 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | ALPHA | MACH | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|--------|------------|--------|------|---------|---------|---------|---------|--------|--------|--------|
| .18540 | 2065.89999 | .028 | .978 | 1.23220 | 1.19880 | 1.01990 | .99060 | .75670 | .73120 | .76110 |
| .23090 | 2065.20001 | 4.085 | .980 | 1.24020 | 1.20580 | 1.05070 | 1.01530 | .77840 | .75630 | .80130 |
| .27640 | 2065.50000 | 8.196 | .979 | 1.23460 | 1.19460 | 1.05580 | 1.03430 | .74490 | .74490 | .80650 |
| .32190 | 2065.20001 | 12.370 | .979 | 1.21600 | 1.17250 | 1.07070 | 1.04110 | .73690 | .73690 | .79710 |
| .36740 | 2065.89999 | 16.602 | .980 | 1.18420 | 1.13760 | 1.05630 | 1.03340 | .75560 | .73950 | .80080 |
| .41290 | 2065.89999 | 20.864 | .988 | 1.14080 | 1.09310 | 1.03170 | 1.01470 | .74160 | .74160 | .77210 |
| .45840 | 2065.79999 | 25.082 | .977 | 1.07150 | 1.02420 | .98370 | .97300 | .76110 | .74460 | .74260 |
| .50390 | 2065.17247 | | | .00192 | .00192 | .00793 | .00893 | .00535 | .00518 | .00991 |

RUN NO. 284# 0 RVAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | ALPHA | MACH | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|--------|------------|--------|-------|---------|---------|---------|---------|--------|--------|--------|
| .18900 | 2012.89999 | .023 | 1.095 | 1.37160 | 1.32850 | 1.12980 | 1.07290 | .70540 | .68210 | .71220 |
| .23450 | 2012.89999 | 4.094 | 1.097 | 1.37980 | 1.33310 | 1.15100 | 1.10740 | .72300 | .70010 | .74300 |
| .28000 | 2015.00000 | 8.220 | 1.098 | 1.37540 | 1.32150 | 1.17960 | 1.13750 | .72220 | .69710 | .74520 |
| .32550 | 2012.89999 | 12.398 | 1.098 | 1.34760 | 1.28980 | 1.14220 | 1.14220 | .69480 | .66480 | .69820 |
| .37100 | 2012.89999 | 16.630 | 1.099 | 1.30940 | 1.24380 | 1.15490 | 1.12150 | .65960 | .65960 | .69980 |
| .41650 | 2013.88401 | 20.876 | 1.099 | 1.25460 | 1.19100 | 1.11340 | 1.05180 | .67140 | .67520 | .67120 |
| .46200 | 2012.89999 | 25.092 | 1.097 | 1.19400 | 1.12590 | 1.02550 | .99690 | .64820 | .64820 | .62690 |
| .50750 | 2012.00000 | | 1.100 | .00113 | .00113 | .00766 | .00848 | .00432 | .00442 | .00757 |

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(AETRO2) 1 02 AUG 78

TABULATED DATA - OASIS (ARC 11-97-87-094)
ARC 11-97-87-094 OASIS ORBITER - WING

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = .000 EOPFLAP = -7.170

RUN NO. 2857 0 RVAL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PSS/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|-------|
| 1.198 | .010 | .19810 | 2017.10001 | 833.92000 | 1.45790 | 1.39740 | 1.19830 | 1.11330 | .67130 | .64580 | .67110 | |
| 1.197 | 2.054 | .22700 | 2017.10001 | 834.64000 | 1.46030 | 1.39430 | 1.21080 | 1.12670 | .68240 | .66020 | .70810 | |
| 1.198 | 4.089 | .29410 | 2017.10001 | 833.92000 | 1.46380 | 1.39400 | .22410 | 1.14670 | .68920 | .66760 | .71270 | |
| 1.198 | 6.143 | .24460 | 2016.39999 | 833.22000 | 1.46870 | 1.38420 | 1.23100 | 1.14180 | .68460 | .66640 | .71610 | |
| 1.198 | 8.223 | .24040 | 2017.10001 | 833.92000 | 1.45250 | 1.37420 | 1.22780 | 1.14040 | .68210 | .66520 | .70940 | |
| 1.196 | 10.311 | .24630 | 2016.50000 | 836.71000 | 1.44130 | 1.36040 | 1.20580 | 1.10790 | .66310 | .63090 | .67680 | |
| 1.196 | 12.401 | .23060 | 2017.80000 | 836.02000 | 1.42890 | 1.34330 | 1.18140 | 1.09770 | .64870 | .61480 | .63420 | |
| 1.197 | 14.515 | .26230 | 2017.10001 | 836.01000 | 1.41300 | 1.32770 | 1.15600 | 1.08320 | .64010 | .60940 | .64240 | |
| 1.196 | 16.638 | .26720 | 2017.80000 | 835.31000 | 1.39870 | 1.29980 | 1.13350 | 1.06780 | .64090 | .62130 | .62130 | |
| 1.196 | 18.751 | .27130 | 2017.10001 | 836.71000 | 1.36250 | 1.27360 | 1.11020 | 1.05980 | .62360 | .60930 | .60320 | |
| 1.196 | 20.887 | .26840 | 2017.80000 | 836.02000 | 1.34000 | 1.25080 | 1.09760 | 1.05660 | .61650 | .62110 | .61070 | |
| 1.196 | 22.999 | .26430 | 2017.80000 | 836.71000 | 1.30740 | 1.22170 | 1.06600 | 1.04500 | .60000 | .57720 | .60680 | |
| 1.196 | 25.116 | .26270 | 2017.10001 | 835.01000 | 1.27430 | 1.19580 | 1.03750 | 1.03750 | .58680 | .55340 | .59240 | |
| 1.197 | 26.169 | .25880 | 2017.10001 | 836.61000 | 1.25980 | 1.18560 | 1.03460 | 1.03230 | .58030 | .54210 | .56470 | |
| | GRADIENT | .00883 | .00000 | .00027 | .00145 | -.00083 | .00661 | .00672 | .00439 | .00635 | .01020 | |

(AE7R03) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-87-87-094)
ARC 11-87-87-394 0A161 ORBITER + RANGES

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AHLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6600 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 171 0 RNV/L = 4.28 GRADIENT INTERVAL = -3.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|--------|
| 1.199 | .099 | -4.97040 | 2010.80000 | 830.40000 | 1.59790 | 1.23200 | 1.44590 | 1.33470 | .68420 | .64930 | .64638 |
| 1.201 | 2.180 | -4.97620 | 2009.60001 | 827.60000 | 1.58466 | 1.22720 | 1.43480 | 1.32140 | .68220 | .65570 | .65310 |
| 1.201 | 4.275 | -4.96620 | 2010.10001 | 827.61000 | 1.59590 | 1.21030 | 1.44530 | 1.31390 | .68240 | .65240 | .65070 |
| 1.199 | 6.406 | -4.94670 | 2008.60001 | 829.69000 | 1.58760 | 1.20330 | 1.46620 | 1.32190 | .67650 | .65740 | .65140 |
| 1.197 | 8.546 | -4.94490 | 2010.10001 | 832.48000 | 1.57820 | 1.19340 | 1.49790 | 1.31040 | .66680 | .63950 | .62620 |
| 1.194 | 10.701 | -4.94170 | 2008.60001 | 834.56000 | 1.56380 | 1.17670 | 1.48750 | 1.27800 | .65890 | .62690 | .60920 |
| 1.196 | 12.857 | -4.94230 | 2009.39999 | 832.47000 | 1.56286 | 1.16220 | 1.45410 | 1.26520 | .65650 | .64860 | .63800 |
| 1.194 | 15.033 | -4.95320 | 2008.60001 | 834.56000 | 1.53710 | 1.13670 | 1.43400 | 1.25530 | .64230 | .66950 | .65510 |
| 1.196 | 17.194 | -4.96350 | 2009.39999 | 833.17000 | 1.51598 | 1.11901 | 1.43469 | 1.26700 | .63630 | .63840 | .62510 |
| 1.196 | 19.354 | -4.96870 | 2008.60001 | 832.47000 | 1.49440 | 1.09680 | 1.44160 | 1.23630 | .63080 | .59660 | .58800 |
| 1.193 | 21.517 | -4.97890 | 2009.39999 | 836.66000 | 1.45820 | 1.06200 | 1.45630 | 1.22230 | .61730 | .59510 | .58670 |
| 1.192 | 23.658 | -4.97210 | 2008.60001 | 836.65000 | 1.42800 | 1.04430 | 1.46750 | 1.24500 | .62180 | .56470 | .56800 |
| 1.192 | 25.774 | -4.94480 | 2010.10001 | 838.86000 | 1.39490 | 1.02130 | 1.47150 | 1.22150 | .61100 | .53920 | .55800 |
| | GRADIENT | .00101 | -.16557 | -.66725 | .00072 | -.00520 | -.00004 | -.00498 | -.00050 | .00314 | .00297 |

RUN NO. 3051 0 RNV/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.566 | .025 | -5.61920 | 1581.50000 | 397.04000 | 2.05600 | 1.50310 | 1.76540 | 1.14490 | .58860 | .57340 | .54730 |
| 1.566 | 2.023 | -5.61890 | 1582.89999 | 397.39000 | 2.05920 | 1.49050 | 1.90250 | 1.15060 | .59040 | .57340 | .55420 |
| 1.566 | 4.109 | -5.61630 | 1580.70000 | 396.86000 | 2.05820 | 1.46040 | 1.90660 | 1.15020 | .58940 | .57160 | .55820 |
| 1.566 | 6.184 | -5.61670 | 1580.70000 | 396.86000 | 2.04870 | 1.47160 | 1.89930 | 1.17420 | .58980 | .58850 | .56630 |
| 1.566 | 8.285 | -5.61770 | 1581.50000 | 397.04000 | 2.03490 | 1.44920 | 1.83100 | 1.42210 | .58460 | .58640 | .53870 |
| 1.566 | 10.334 | -5.61790 | 1578.60001 | 396.33000 | 2.02440 | 1.43430 | 1.63950 | 1.42760 | .58260 | .54870 | .52360 |
| 1.566 | 12.388 | -5.61930 | 1579.30000 | 396.51000 | 2.00450 | 1.41300 | 1.63420 | 1.16070 | .56660 | .49780 | .51560 |
| 1.566 | 14.435 | -5.61980 | 1579.30000 | 396.51000 | 1.98510 | 1.38710 | 1.61890 | 1.38310 | .55330 | .51530 | .48820 |
| 1.566 | 16.434 | -5.61910 | 1579.30000 | 396.51000 | 1.96660 | 1.37150 | 1.59490 | 1.36260 | .55550 | .49700 | .47820 |
| 1.566 | 18.773 | -5.62190 | 1580.00000 | 396.68000 | 1.95537 | 1.34700 | 1.58570 | 1.32700 | .54900 | .49470 | .48110 |
| 1.566 | 20.733 | -5.62620 | 1579.30000 | 396.54000 | 1.90270 | 1.31420 | 1.63100 | 1.26140 | .54700 | .49470 | .47060 |
| 1.566 | 24.930 | -5.61490 | 1579.30000 | 396.51000 | 1.84900 | 1.27270 | 1.61400 | 1.14400 | .50640 | .44560 | .47060 |
| 1.566 | 29.961 | -5.61220 | 1579.30000 | 396.51000 | 1.82960 | 1.18260 | 1.82960 | 1.14270 | .46340 | .43250 | .46530 |
| | GRADIENT | .00071 | -.20226 | -.04563 | .00063 | -.00555 | -.03435 | .00128 | -.00619 | -.00844 | -.00262 |

(AE7R03) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA =
 ALTRON =
 -5.000 ELEVON = .000
 .000 BOFLAP = -7.170

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.750 | -0.099 | -5.44620 | 1650.1000 | 309.92000 | 2.34030 | 1.63980 | 1.78390 | 1.15930 | 5.3070 | 4.6890 | 4.7710 |
| 1.750 | 1.902 | -5.44650 | 1651.5000 | 310.19000 | 2.33510 | 1.62598 | 2.04840 | 1.15910 | 5.3440 | 4.8150 | 4.7320 |
| 1.750 | 3.975 | -5.44940 | 1650.1000 | 309.92000 | 2.33340 | 1.62330 | 2.05070 | 1.17840 | 5.3260 | 4.8420 | 4.7530 |
| 1.750 | 6.044 | -5.44930 | 1649.39999 | 309.79000 | 2.33290 | 1.61330 | 2.03720 | 1.18610 | 5.3258 | 4.8320 | 4.8140 |
| 1.750 | 8.116 | -5.44750 | 1658.80000 | 310.06000 | 2.31280 | 1.60320 | 1.64950 | 1.38180 | 5.3180 | 5.4100 | 4.6600 |
| 1.750 | 10.183 | -5.44560 | 1650.1000 | 309.92000 | 2.29790 | 1.58680 | 1.68420 | 1.38330 | 5.2810 | 4.9120 | 4.6690 |
| 1.750 | 12.228 | -5.44500 | 1650.8000 | 310.06000 | 2.27690 | 1.57180 | 1.65250 | 1.18790 | 5.1800 | 4.9380 | 4.6890 |
| 1.750 | 14.316 | -5.44490 | 1650.1000 | 309.92000 | 2.25790 | 1.54800 | 1.66200 | 1.21070 | 5.1180 | 4.8710 | 4.4300 |
| 1.750 | 16.464 | -5.44430 | 1649.39999 | 309.79000 | 2.23940 | 1.52690 | 1.66540 | 1.27800 | 5.0130 | 4.8290 | 4.4450 |
| 1.750 | 18.553 | -5.44380 | 1658.1000 | 309.92000 | 2.21080 | 1.50280 | 1.65740 | 1.22380 | 4.90700 | 4.7430 | 4.5200 |
| 1.750 | 20.586 | -5.44340 | 1658.1000 | 309.92000 | 2.17480 | 1.48280 | 1.66890 | 1.16790 | 4.8690 | 4.2960 | 4.6510 |
| 1.750 | 24.735 | -5.43580 | 1656.1000 | 309.92000 | 2.11430 | 1.40850 | 2.03950 | 1.07920 | 4.9450 | 3.9780 | 4.09580 |
| 1.750 | 25.784 | -5.43320 | 1649.39999 | 309.79000 | 2.09220 | 1.38520 | 2.02260 | 1.06820 | 4.3970 | 3.7840 | 3.8700 |
| | GRADIENT | -0.0076 | -0.00408 | -0.0078 | -0.0115 | -0.0379 | 0.0512 | 0.0419 | 0.0046 | 0.0130 | 0.0103 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|----------|---------|---------|---------|----------|---------|----------|
| 1.996 | -0.026 | -5.97310 | 1841.70000 | 236.75000 | 2.84510 | 1.82630 | 1.94110 | 1.23270 | 5.1060 | 4.5820 | 4.4170 |
| 1.996 | 1.964 | -5.96960 | 1843.1000 | 236.94000 | 2.79940 | 1.82060 | 2.28500 | 1.23280 | 5.0380 | 4.4690 | 4.2970 |
| 1.996 | 4.034 | -5.97000 | 1843.1000 | 236.94000 | 2.77530 | 1.81310 | 2.28860 | 1.24190 | 5.0100 | 4.7560 | 4.1870 |
| 1.996 | 6.098 | -5.97220 | 1841.70000 | 236.75000 | 2.77770 | 1.80110 | 1.84610 | 1.24050 | 5.0270 | 4.7570 | 4.2620 |
| 1.996 | 8.161 | -5.97120 | 1841.70000 | 236.75000 | 2.75960 | 1.78460 | 1.84870 | 1.31920 | 4.9090 | 4.6240 | 4.3320 |
| 1.996 | 10.222 | -5.96910 | 1841.70000 | 236.75000 | 2.73250 | 1.76310 | 1.85190 | 1.35140 | 4.7990 | 4.6120 | 4.2150 |
| 1.996 | 12.262 | -5.96950 | 1841.70000 | 236.75000 | 2.72090 | 1.74080 | 1.86090 | 1.24420 | 4.6700 | 3.9960 | 4.1600 |
| 1.996 | 14.346 | -5.96630 | 1841.70000 | 236.75000 | 2.71690 | 1.71690 | 1.86770 | 1.26990 | 4.5950 | 3.7700 | 4.0770 |
| 1.996 | 16.483 | -5.96600 | 1841.00000 | 236.66000 | 2.68610 | 1.69440 | 1.86090 | 1.23040 | 4.6110 | 3.8620 | 4.0420 |
| 1.996 | 18.572 | -5.96580 | 1841.70000 | 236.75000 | 2.65580 | 1.67270 | 1.85990 | 1.19790 | 4.6550 | 4.0700 | 4.1900 |
| 1.996 | 20.594 | -5.96190 | 1841.70000 | 236.75000 | 2.60490 | 1.64960 | 1.86760 | 1.16930 | 4.4020 | 3.6100 | 4.1700 |
| 1.996 | 22.673 | -5.96030 | 1841.70000 | 236.75000 | 2.54100 | 1.60710 | 1.96620 | 1.14450 | 4.2500 | 3.8600 | 3.9350 |
| 1.996 | 24.737 | -5.95610 | 1841.00000 | 236.66000 | 2.47870 | 1.54720 | 2.15180 | 1.12410 | 4.0920 | 3.6050 | 3.6200 |
| 1.996 | 25.762 | -5.95210 | 1841.70000 | 236.75000 | 2.49660 | 1.52130 | 2.20790 | 1.10340 | 3.9980 | 3.4430 | 3.4660 |
| | GRADIENT | -0.0076 | -0.00408 | -0.0078 | -0.00982 | -0.0271 | 0.0503 | 0.0473 | -0.00236 | 0.01435 | -0.00566 |

TABLATED DATA - 0A161 (ARC 11-97-87-09A J

(AETRQ3) (02 AUG 76)

ARC 11-97-87-09A 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -9.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.8900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 316 0 RNT = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | -.100 | -6.11270 | 2045.39989 | 176.98000 | 3.28840 | 2.01120 | .00000 | 1.25980 | .47720 | .39798 | .38750 |
| 2.250 | 1.881 | -6.11300 | 2044.70000 | 176.98000 | 3.28580 | 2.00390 | 2.39190 | 1.26010 | .46590 | .38660 | .37360 |
| 2.250 | 3.941 | -6.11290 | 2044.70000 | 176.98000 | 3.28310 | 1.99290 | 2.31200 | 1.26390 | .45950 | .37920 | .35910 |
| 2.250 | 5.996 | -6.10980 | 2044.70000 | 176.98000 | 3.26280 | 1.97890 | 1.96890 | 1.27310 | .45090 | .36650 | .34910 |
| 2.250 | 8.052 | -6.11170 | 2044.78000 | 176.98000 | 3.23750 | 1.96290 | 2.02490 | 1.27630 | .44420 | .36490 | .34610 |
| 2.250 | 10.105 | -6.11200 | 2044.78000 | 176.98000 | 3.19510 | 1.94780 | 2.03490 | 1.27400 | .44420 | .36420 | .34610 |
| 2.250 | 12.153 | -6.10990 | 2046.10001 | 177.04000 | 3.15220 | 1.92540 | 2.04790 | 1.26680 | .40550 | .31230 | .31330 |
| 2.250 | 14.213 | -6.10960 | 2049.70001 | 177.34000 | 3.16120 | 1.89700 | 2.06990 | 1.23800 | .40470 | .30960 | .32260 |
| 2.250 | 16.343 | -6.10270 | 2051.79999 | 177.53000 | 3.13440 | 1.87810 | 2.08470 | 1.21710 | .40310 | .30810 | .33210 |
| 2.250 | 18.425 | -6.10090 | 2051.79999 | 177.59000 | 3.09080 | 1.85340 | 2.09660 | 1.18650 | .40150 | .30650 | .33750 |
| 2.250 | 20.440 | -6.09860 | 2051.79999 | 177.59000 | 3.04580 | 1.81710 | 2.05270 | 1.19110 | .39910 | .30210 | .35110 |
| 2.250 | 22.509 | -6.09470 | 2051.79999 | 177.53000 | 2.98000 | 1.77310 | 2.07670 | 1.16210 | .39260 | .29970 | .31770 |
| 2.250 | 24.566 | -6.09480 | 2056.29999 | 177.83000 | 2.92370 | 1.72100 | 2.09410 | 1.14970 | .38260 | .28970 | .30400 |
| 2.250 | 26.588 | -6.08900 | 2058.89999 | 178.14900 | 2.86840 | 1.70220 | 2.14650 | 1.12820 | .36080 | .28610 | .30400 |
| 2.250 | GRADIENT | -.00005 | -.17208 | -.01475 | -.00137 | -.00453 | .58311 | .00323 | -.00437 | -.03462 | -.00713 |

RUN NO. 441 0 RNT = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .094 | -4.91730 | 1500.80000 | 88.02200 | 3.82792 | 2.24880 | 2.17350 | 1.29660 | .38190 | .35170 | .34970 |
| 2.499 | 2.131 | -4.94050 | 1500.10001 | 87.98000 | 3.82600 | 2.24710 | 2.20080 | 1.29660 | .39030 | .35200 | .34390 |
| 2.499 | 4.183 | -4.97910 | 1499.39999 | 87.93900 | 3.80730 | 2.21580 | 2.19570 | 1.31820 | .39610 | .35990 | .31980 |
| 2.499 | 6.219 | -4.97910 | 1500.10001 | 87.99000 | 3.81000 | 2.22400 | 2.23810 | 1.34640 | .37820 | .36630 | .35600 |
| 2.499 | 8.250 | -4.99180 | 1500.10001 | 87.98000 | 3.79000 | 2.20940 | 2.24660 | 1.34920 | .36920 | .36920 | .33300 |
| 2.499 | 10.297 | -5.00220 | 1500.10001 | 87.98000 | 3.75381 | 2.18220 | 2.27080 | 1.34920 | .34510 | .34480 | .30880 |
| 2.499 | 12.331 | -5.00860 | 1500.10001 | 87.98000 | 3.72481 | 2.14630 | 2.27330 | 1.32370 | .32600 | .28220 | .27120 |
| 2.499 | 14.382 | -5.00990 | 1500.10004 | 87.98000 | 3.70363 | 2.10870 | 2.29940 | 1.33360 | .32600 | .28170 | .29680 |
| 2.499 | 16.413 | -5.00790 | 1500.10001 | 87.98000 | 3.65083 | 2.10870 | 2.30010 | 1.31740 | .32690 | .27850 | .28860 |
| 2.499 | 18.461 | -5.06240 | 1500.10001 | 87.98000 | 3.59863 | 2.08250 | 2.30600 | 1.29930 | .30670 | .25840 | .27850 |
| 2.499 | 20.507 | -4.99270 | 1500.10001 | 87.98000 | 3.51721 | 2.02930 | 2.29340 | 1.26720 | .28530 | .23290 | .27760 |
| 2.499 | 22.541 | -4.97780 | 1500.10001 | 87.98000 | 3.45380 | 1.99050 | 2.28230 | 1.26720 | .28560 | .23290 | .27760 |
| 2.499 | 24.592 | -4.99950 | 1500.10001 | 87.98000 | 3.45380 | 1.94930 | 2.27180 | 1.20790 | .28040 | .23440 | .26620 |
| 2.499 | 26.614 | -4.94950 | 1500.10001 | 87.98000 | 3.33700 | 1.93610 | 2.26620 | 1.20550 | .28970 | .24340 | .28160 |
| 2.499 | GRADIENT | -.01069 | -.34235 | -.02060 | -.00504 | -.00739 | .00542 | .00522 | -.00583 | -.00534 | -.00732 |

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC
 LREF = 474.8000 IN. YMRP = 0.0000 IN. YC
 BRPF = 936.6800 IN. ZMRP = 375.0000 IN. ZC
 SCALE = 0.300

PARAMETRIC DATA

BETA = -5.000 ELEVON = 0.000
 AIRLON = 0.000 BDFLAP = -7.170

RUN NO. 440/ 0 RV/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|----------|---------|---------|---------|---------|--------|--------|--------|
| 3.040 | -0.05 | -4.88390 | 2008.60001 | 51.53600 | 5.00400 | 2.72670 | 2.63040 | 1.38910 | 32910 | .28780 | .29470 |
| 3.040 | 2.030 | -4.90640 | 2007.89999 | 51.51800 | 5.00510 | 2.72670 | 2.64080 | 1.41060 | 32810 | .28340 | .28690 |
| 3.040 | 4.060 | -4.92740 | 2008.60001 | 51.13600 | 5.00220 | 2.71310 | 2.65120 | 1.41040 | 30710 | .26590 | .26240 |
| 3.040 | 6.109 | -4.94570 | 2008.60001 | 51.53600 | 4.96920 | 2.69340 | 2.66930 | 1.40960 | 28660 | .27030 | .23930 |
| 3.040 | 8.183 | -4.94960 | 2008.60001 | 51.53600 | 4.96859 | 2.67620 | 2.67620 | 1.41300 | 27720 | .22550 | .22900 |
| 3.040 | 10.160 | -4.96750 | 2008.60001 | 51.53600 | 4.95240 | 2.67550 | 2.75440 | 1.44250 | 29550 | .24749 | .21430 |
| 3.040 | 12.192 | -4.97410 | 2008.60001 | 51.53600 | 4.88980 | 2.61346 | 2.75090 | 1.40360 | 26240 | .21090 | .22460 |
| 3.040 | 14.217 | -4.97350 | 2008.60001 | 51.53600 | 4.86790 | 2.59280 | 2.77150 | 1.40360 | 27830 | .21090 | .24400 |
| 3.040 | 16.249 | -4.97550 | 2008.60001 | 51.53600 | 4.79780 | 2.56560 | 2.78530 | 1.41510 | 26460 | .21310 | .22340 |
| 3.040 | 18.282 | -4.96550 | 2008.60001 | 51.51800 | 4.63270 | 2.52090 | 2.79220 | 1.41160 | 25950 | .20060 | .20750 |
| 3.040 | 20.327 | -4.95740 | 2007.89999 | 51.51800 | 4.50000 | 2.48030 | 2.80320 | 1.36950 | 24490 | .18650 | .20370 |
| 3.040 | 22.366 | -4.94280 | 2008.60001 | 51.53600 | 4.33000 | 2.43560 | 2.87020 | 1.34930 | 24500 | .18650 | .19340 |
| 3.040 | 24.402 | -4.92490 | 2007.89999 | 51.51800 | 4.13870 | 2.39520 | 2.79860 | 1.34930 | 25530 | .19330 | .20020 |
| 3.040 | 25.441 | -4.91470 | 2008.60001 | 51.53600 | 4.39598 | 2.38400 | 2.78300 | 1.33860 | 25530 | .19330 | .20020 |
| GRADIENT | | | | | -0.0044 | | .00512 | | .00541 | | .00794 |

RUN NO. 431/ 0 RV/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|----------|----------|---------|---------|---------|--------|--------|--------|
| 3.499 | -1.189 | -5.09780 | 2544.10001 | 33.41400 | 6.31010 | 3.30760 | 3.19400 | 1.59190 | 38990 | .33690 | .34220 |
| 3.499 | 1.829 | -5.12230 | 2544.10001 | 33.41400 | 6.28080 | 3.28000 | 3.14240 | 1.57580 | 35330 | .30030 | .30550 |
| 3.499 | 3.654 | -5.14290 | 2542.60001 | 33.39600 | 6.26180 | 3.26180 | 3.18650 | 1.59790 | 35888 | .30050 | .30050 |
| 3.499 | 5.481 | -5.15910 | 2542.60001 | 33.38600 | 6.24910 | 3.25010 | 3.17710 | 1.59390 | 30140 | .25360 | .25360 |
| 3.499 | 7.307 | -5.17240 | 2541.89999 | 33.38600 | 6.24550 | 3.25040 | 3.23100 | 1.58050 | 31740 | .26430 | .25370 |
| 3.499 | 9.133 | -5.18230 | 2545.50000 | 33.43200 | 6.19040 | 3.17030 | 3.23920 | 1.54910 | 27750 | .22450 | .22450 |
| 3.499 | 11.964 | -5.18900 | 2550.39999 | 33.46700 | 6.15620 | 3.12720 | 3.25430 | 1.52270 | 23590 | .17770 | .17770 |
| 3.499 | 14.807 | -5.19030 | 2554.00000 | 33.54400 | 6.08170 | 3.07110 | 3.26270 | 1.51400 | 24040 | .17690 | .17690 |
| 3.499 | 16.621 | -5.18830 | 2559.60001 | 33.61800 | 6.00340 | 3.06330 | 3.31090 | 1.57740 | 23980 | .23980 | .23980 |
| 3.499 | 18.420 | -5.18060 | 2563.89999 | 33.67400 | 5.88690 | 2.99290 | 3.28760 | 1.54590 | 25150 | .19890 | .20420 |
| 3.499 | 20.120 | -5.17210 | 2565.50000 | 33.74800 | 5.77800 | 2.93640 | 3.29640 | 1.54570 | 28230 | .18400 | .18400 |
| 3.499 | 22.140 | -5.15660 | 2575.20001 | 33.82200 | 5.67080 | 2.93690 | 3.32430 | 1.55460 | 28480 | .22480 | .21950 |
| 3.499 | 24.139 | -5.13750 | 2575.89999 | 33.83200 | 5.51520 | 2.87110 | 3.27950 | 1.49940 | 26320 | .19040 | .19040 |
| 3.499 | 25.159 | -5.12780 | 2578.70001 | 33.86900 | 5.44450 | 2.85720 | 3.28150 | 1.50600 | 25980 | .19140 | .18620 |
| GRADIENT | | | | | -0.00507 | | .00865 | | .00149 | | .01031 |

TABLATED DATA - 0A161 (ARC 11-97-87-09A)
ARC 11-97-87-09A 0A161 ORBITER * RAKES

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDELAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1075.6880 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 304/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PSR/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.556 | 0.029 | -2.58140 | 1573.70000 | 395.09000 | 1.92380 | 1.62970 | 1.59940 | 1.21550 | .80520 | .58910 | .56440 |
| 1.556 | 2.025 | -2.57970 | 1573.00000 | 394.91000 | 1.93040 | 1.62250 | 1.77980 | 1.22170 | .60210 | .58010 | .56300 |
| 1.556 | 4.108 | -2.58050 | 1572.30000 | 394.73000 | 1.92550 | 1.61300 | 1.79630 | 1.23340 | .59890 | .56870 | .55590 |
| 1.556 | 6.182 | -2.58110 | 1573.00000 | 394.51000 | 1.91390 | 1.60020 | 1.75750 | 1.23460 | .59800 | .58220 | .55940 |
| 1.556 | 8.258 | -2.57990 | 1573.70000 | 395.09000 | 1.90431 | 1.58770 | 1.46750 | 1.24520 | .59800 | .58170 | .55210 |
| 1.556 | 10.330 | -2.58000 | 1573.00000 | 394.91000 | 1.88920 | 1.57290 | 1.46830 | 1.53140 | .57610 | .53030 | .54150 |
| 1.556 | 12.378 | -2.58140 | 1573.00000 | 394.91000 | 1.86831 | 1.55580 | 1.46680 | 1.43350 | .56330 | .51440 | .51080 |
| 1.556 | 14.469 | -2.58290 | 1573.70000 | 395.09000 | 1.84731 | 1.53140 | 1.45050 | 1.23550 | .55410 | .48480 | .50340 |
| 1.556 | 16.617 | -2.59060 | 1573.70000 | 395.09000 | 1.82140 | 1.50570 | 1.42350 | 1.36990 | .54710 | .49330 | .49910 |
| 1.556 | 18.716 | -2.57820 | 1573.00000 | 394.91000 | 1.79230 | 1.47390 | 1.56230 | 1.47740 | .54840 | .51250 | .47840 |
| 1.556 | 20.753 | -2.57680 | 1572.30000 | 394.73000 | 1.77100 | 1.44388 | 1.77990 | 1.40940 | .54090 | .52840 | .47090 |
| 1.558 | 24.915 | -2.57020 | 1573.70000 | 395.09000 | 1.71980 | 1.44388 | 1.70470 | 1.22198 | .49740 | .44320 | .44410 |
| 1.558 | 25.943 | -2.56800 | 1572.30000 | 394.73000 | 1.70800 | 1.38440 | 1.75910 | 1.22930 | .48480 | .42360 | .43590 |
| | GRADIENT | .00022 | -.34319 | -.08823 | .00040 | -.00410 | .04738 | .00440 | -.00157 | -.00501 | .00062 |

RUN NO. 307/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|--------|
| 1.750 | -.093 | -2.41170 | 1649.39999 | 309.79000 | 2.18860 | 1.81600 | 1.62880 | 1.28190 | .56180 | .51710 | .50680 |
| 1.750 | 1.904 | -2.41270 | 1651.50000 | 310.19000 | 2.18890 | 1.80640 | 1.89710 | 1.28660 | .56030 | .53110 | .50650 |
| 1.750 | 3.979 | -2.41220 | 1652.89999 | 310.45000 | 2.18940 | 1.80630 | 1.90820 | 1.29160 | .56010 | .52760 | .50750 |
| 1.750 | 6.047 | -2.41220 | 1653.60001 | 310.59000 | 2.18080 | 1.80130 | 1.55270 | 1.29950 | .55770 | .52860 | .50410 |
| 1.750 | 8.117 | -2.41280 | 1652.89999 | 310.45000 | 2.16740 | 1.79110 | 1.51496 | 1.30650 | .54910 | .51080 | .51310 |
| 1.750 | 10.181 | -2.41100 | 1623.60001 | 310.59000 | 2.14660 | 1.77630 | 1.51920 | 1.55100 | .53890 | .48580 | .50290 |
| 1.750 | 12.226 | -2.41040 | 1655.00000 | 310.85000 | 2.12770 | 1.75630 | 1.51750 | 1.54140 | .52560 | .47990 | .49100 |
| 1.750 | 14.311 | -2.40690 | 1655.00000 | 310.85000 | 2.10100 | 1.73270 | 1.52010 | 1.30300 | .52020 | .44260 | .47340 |
| 1.750 | 16.455 | -2.40420 | 1654.30000 | 310.72000 | 2.07060 | 1.70230 | 1.51450 | 1.32580 | .51340 | .46260 | .44830 |
| 1.750 | 18.560 | -2.40090 | 1655.70000 | 310.99000 | 2.03640 | 1.68880 | 1.51440 | 1.42060 | .49890 | .44920 | .43550 |
| 1.750 | 20.579 | -2.39820 | 1657.10001 | 311.25000 | 2.02420 | 1.68060 | 1.75730 | 1.38940 | .49880 | .46980 | .42810 |
| 1.750 | 24.732 | -2.39280 | 1657.10001 | 311.25000 | 1.98640 | 1.65050 | 1.75730 | 1.31620 | .49580 | .45740 | .42530 |
| 1.750 | 25.750 | -2.38930 | 1657.10001 | 311.25000 | 1.93450 | 1.56030 | 1.79030 | 1.25480 | .44350 | .39740 | .39740 |
| | GRADIENT | -.00012 | .85826 | .16183 | -.00079 | -.60237 | -.06820 | .00238 | -.00042 | .00255 | .00017 |

ORIGINAL PAGE IS
OF POOR QUALITY

(AE70W) (02 AUG 76)

TABLED DATA - 0A161 (ARC 11-97-87-09H)

ARC 11-97-87-09H 0A161 ORBITER - RAKES

PARAMETRIC DATA

BETA = -2.000' ELEVON = .000
 ATLRON = .000 BEELAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = 375.0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 317/ 0 RN/L = 3.06 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.996 | -0.019 | -2.92380 | 1842.39999 | 236.84000 | 2.63370 | 2.04670 | 1.71840 | 1.33610 | 511670 | 46180 | 49430 |
| 1.996 | 1.965 | -2.92510 | 1842.39999 | 236.84000 | 2.63190 | 2.02630 | 2.03920 | 1.34620 | 51030 | 45980 | 49580 |
| 1.996 | 4.034 | -2.92340 | 1841.70000 | 236.75000 | 2.62190 | 2.01710 | 2.04920 | 1.36480 | 51500 | 46600 | 49320 |
| 1.996 | 6.092 | -2.92210 | 1842.39999 | 236.84000 | 2.60560 | 1.99650 | 1.63140 | 1.37700 | 51500 | 46350 | 49680 |
| 1.996 | 8.158 | -2.92570 | 1842.39999 | 236.84000 | 2.58130 | 1.98270 | 1.65050 | 1.37930 | 50700 | 47700 | 49330 |
| 1.996 | 10.215 | -2.92440 | 1841.70000 | 236.75000 | 2.57310 | 1.95580 | 1.65230 | 1.47500 | 49320 | 47920 | 49300 |
| 1.996 | 12.257 | -2.92230 | 1841.70000 | 236.75000 | 2.54720 | 1.94540 | 1.68110 | 1.48080 | 48700 | 48170 | 42700 |
| 1.996 | 14.335 | -2.92300 | 1841.70000 | 236.75000 | 2.49450 | 1.92970 | 1.69630 | 1.46970 | 46900 | 38870 | 42100 |
| 1.996 | 16.478 | -2.92110 | 1841.70000 | 236.75000 | 2.45040 | 1.88430 | 1.69130 | 1.35130 | 46350 | 39370 | 42380 |
| 1.996 | 18.564 | -2.91870 | 1841.70000 | 236.75000 | 2.42570 | 1.85760 | 1.63230 | 1.35150 | 45940 | 41480 | 41180 |
| 1.996 | 20.586 | -2.91960 | 1842.39999 | 236.84000 | 2.40750 | 1.82650 | 1.63230 | 1.34410 | 44480 | 37290 | 41180 |
| 1.996 | 22.663 | -2.91630 | 1842.39999 | 236.84000 | 2.37470 | 1.80780 | 1.68910 | 1.32390 | 43660 | 37370 | 40210 |
| 1.996 | 24.727 | -2.91300 | 1842.39999 | 236.84000 | 2.30080 | 1.74370 | 1.91370 | 1.30670 | 42380 | 36020 | 37140 |
| 1.996 | 25.753 | -2.90950 | 1848.10001 | 237.57000 | 2.26680 | 1.71520 | 1.88470 | 1.30270 | 41610 | 35410 | 35260 |
| 1.998 | GRADIENT | .00010 | -1.17386 | -.02235 | -.00292 | -.00581 | .00136 | -.00734 | -.00079 | .00105 | -.00471 |

RUN NO. 317/ 0 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | -0.093 | -3.07790 | 2059.60001 | 178.26000 | 2.95980 | 2.23650 | 1.73130 | 1.38980 | 48320 | 48990 | 39260 |
| 2.250 | 1.887 | -3.07710 | 2058.89999 | 178.14000 | 2.97950 | 2.22630 | 1.73920 | 1.40148 | 47380 | 39310 | 38110 |
| 2.250 | 3.843 | -3.07600 | 2058.89999 | 178.14000 | 2.97080 | 2.21840 | 1.74210 | 1.41120 | 46750 | 39370 | 36980 |
| 2.250 | 5.996 | -3.07470 | 2059.60001 | 178.14000 | 2.96780 | 2.20350 | 1.75900 | 1.42120 | 46350 | 41360 | 37180 |
| 2.250 | 8.053 | -3.07480 | 2059.60001 | 178.20000 | 2.95590 | 2.19690 | 1.79300 | 1.42370 | 45630 | 40750 | 38360 |
| 2.250 | 10.105 | -3.07160 | 2060.29999 | 178.26000 | 2.92430 | 2.18520 | 1.78470 | 1.42210 | 43290 | 38110 | 36910 |
| 2.250 | 12.137 | -3.07140 | 2060.29999 | 178.26000 | 2.89460 | 2.16340 | 1.78660 | 1.41810 | 42200 | 36530 | 34220 |
| 2.250 | 14.203 | -3.07090 | 2060.29999 | 178.26000 | 2.85860 | 2.13860 | 1.80860 | 1.40260 | 41340 | 32070 | 33770 |
| 2.250 | 16.340 | -3.06930 | 2060.29999 | 178.26000 | 2.83010 | 2.10780 | 1.81950 | 1.40210 | 40480 | 31730 | 33730 |
| 2.250 | 18.420 | -3.06650 | 2060.29999 | 178.26000 | 2.79270 | 2.07500 | 1.80760 | 1.39930 | 39940 | 31180 | 34460 |
| 2.250 | 20.435 | -3.06440 | 2060.29999 | 178.26000 | 2.73960 | 2.03640 | 1.80950 | 1.34548 | 38410 | 29940 | 36720 |
| 2.250 | 22.506 | -3.05750 | 2060.29999 | 178.26000 | 2.68410 | 1.98870 | 1.89950 | 1.34460 | 37350 | 28898 | 34070 |
| 2.250 | 24.563 | -3.05420 | 2060.29999 | 178.26000 | 2.60870 | 1.95000 | 2.00260 | 1.32060 | 37290 | 28790 | 30180 |
| 2.250 | 25.583 | -3.05240 | 2060.29999 | 178.26000 | 2.57110 | 1.92410 | 1.97590 | 1.31550 | 36920 | 27750 | 28750 |
| 2.250 | GRADIENT | .00047 | -.17234 | -.01477 | .00268 | -.00448 | .00264 | -.00530 | -.00388 | -.00388 | -.00565 |

TABULATED DATA - OAI61 (ARC 11-97-87-08R)

ARC 11-97-87-08R OAI61 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1078.6800 IN. XC
 LREF = 474.8000 IN. YMRP = .0000 IN. YC
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZC
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AILRON = .000 BRFLAP = -7.170

RUN. NO. 442/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|----------|---------|---------|---------|---------|---------|---------|--------|
| 2.499 | 1.10 | -1.94200 | 1500.10001 | 87.98800 | 3.41240 | 2.58380 | 1.88620 | 1.48500 | 1.88620 | .36400 | .34580 |
| 2.499 | 2.147 | -1.95050 | 1500.10001 | 87.98000 | 3.40820 | 2.58130 | 1.89560 | 1.50240 | 3.8310 | 35.080 | 33470 |
| 2.499 | 4.174 | -1.96070 | 1500.10001 | 87.98000 | 3.40730 | 2.57970 | 1.91740 | 1.52480 | 3.8730 | 35.300 | 34700 |
| 2.499 | 6.223 | -1.96890 | 1500.10001 | 87.98000 | 3.39810 | 2.54700 | 1.93400 | 1.53460 | 3.8510 | 37.300 | 34280 |
| 2.499 | 8.251 | -1.97540 | 1500.10001 | 87.98000 | 3.38620 | 2.52530 | 1.95270 | 1.53540 | 3.8640 | 35.990 | 34590 |
| 2.499 | 10.293 | -1.97980 | 1500.10001 | 87.98000 | 3.35420 | 2.49640 | 1.96650 | 1.52940 | 3.870 | 30.870 | 32480 |
| 2.499 | 12.338 | -1.98220 | 1500.10001 | 87.98000 | 3.33260 | 2.46660 | 1.97520 | 1.52810 | 3.8390 | 28.960 | 30170 |
| 2.499 | 14.382 | -1.98470 | 1498.60001 | 87.77500 | 3.29920 | 2.43450 | 1.97550 | 1.52690 | 3.2440 | 27.190 | 29810 |
| 2.499 | 16.419 | -1.98380 | 1497.30000 | 87.81500 | 3.24830 | 2.40330 | 1.97750 | 1.52970 | 3.2950 | 26.310 | 30930 |
| 2.499 | 18.492 | -1.98320 | 1497.30000 | 87.81500 | 3.18020 | 2.39630 | 1.95980 | 1.50520 | 3.0910 | 26.060 | 30500 |
| 2.499 | 20.523 | -1.97580 | 1496.60001 | 87.77500 | 3.11640 | 2.34730 | 1.95770 | 1.50150 | 3.0840 | 26.200 | 30640 |
| 2.499 | 22.559 | -1.97050 | 1497.30000 | 87.81500 | 3.06590 | 2.29670 | 1.94750 | 1.48110 | 2.9610 | 24.960 | 27790 |
| 2.499 | 24.593 | -1.97050 | 1497.30000 | 87.81500 | 3.01870 | 2.26450 | 1.93950 | 1.47390 | 3.1440 | 26.600 | 27610 |
| 2.499 | 25.629 | -1.96640 | 1497.30000 | 87.81500 | 2.96230 | 2.23510 | 1.91190 | 1.45140 | 2.9390 | 24.340 | 25350 |
| | GRADIENT | -.00460 | .00001 | -.00000 | -.00125 | -.00593 | -.00757 | .00973 | -.00219 | -.00271 | .00029 |

RUN. NO. 439/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|----------|---------|---------|---------|---------|---------|--------|--------|
| 3.040 | .039 | -1.86350 | 2018.50000 | 51.79000 | 4.41894 | 3.22620 | 2.23510 | 1.67470 | 3.4870 | .31460 | .30090 |
| 3.040 | 2.071 | -1.87300 | 2015.70000 | 51.71700 | 4.41540 | 3.22660 | 2.25700 | 1.68830 | 3.3500 | 28.360 | 27685 |
| 3.040 | 4.096 | -1.88260 | 2012.89999 | 51.64500 | 4.41780 | 3.22160 | 2.27230 | 1.70680 | 3.4630 | 33.260 | 29150 |
| 3.040 | 6.126 | -1.89100 | 2007.89999 | 51.51800 | 4.39410 | 3.19520 | 2.28470 | 1.72620 | 3.3680 | 29.960 | 28870 |
| 3.040 | 8.151 | -1.89630 | 2007.89999 | 51.51800 | 4.39140 | 3.18930 | 2.32380 | 1.75220 | 3.3870 | 28.370 | 28370 |
| 3.040 | 10.189 | -1.89940 | 2008.60001 | 51.53680 | 4.37000 | 3.14460 | 2.34620 | 1.72710 | 3.1980 | 27.180 | 26830 |
| 3.040 | 12.216 | -1.90430 | 2008.60001 | 51.53680 | 4.33050 | 3.09250 | 2.34620 | 1.70650 | 2.7590 | 21.740 | 21740 |
| 3.040 | 14.261 | -1.90530 | 2007.89999 | 51.51800 | 4.27580 | 3.05560 | 2.34740 | 1.70120 | 2.6100 | 20.600 | 20600 |
| 3.040 | 16.290 | -1.90580 | 2008.60001 | 51.51800 | 4.22160 | 3.04060 | 2.36080 | 1.72820 | 2.8920 | 22.530 | 22530 |
| 3.040 | 18.331 | -1.90290 | 2007.89999 | 51.51800 | 4.14330 | 2.98900 | 2.33970 | 1.73940 | 2.9340 | 23.640 | 23640 |
| 3.040 | 20.382 | -1.89960 | 2008.60001 | 51.53680 | 4.06730 | 2.93650 | 2.34530 | 1.73010 | 2.9340 | 24.430 | 24430 |
| 3.040 | 22.429 | -1.89560 | 2008.60001 | 51.53680 | 3.96420 | 2.86430 | 2.31100 | 1.69230 | 2.6240 | 22.150 | 22150 |
| 3.040 | 24.449 | -1.89970 | 2008.60001 | 51.53680 | 3.90060 | 2.82000 | 2.29980 | 1.68490 | 2.6960 | 21.810 | 21810 |
| 3.040 | 25.468 | -1.89640 | 2008.60001 | 51.53680 | 3.84490 | 2.79870 | 2.29800 | 1.67900 | 2.6550 | 20.370 | 20370 |
| | GRADIENT | -.00471 | -1.38250 | -.03574 | -.00032 | -.00113 | .00917 | -.00791 | -.00060 | .00442 | .00232 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -2.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.499 | -.180 | -1.98260 | 2607.00000 | 34.24000 | 5.41180 | 3.83660 | 2.59120 | 1.86710 | 34570 | 29390 | 26360 |
| 3.499 | 1.873 | -1.99870 | 2603.39999 | 34.29900 | 5.42200 | 3.86090 | 2.58450 | 1.86530 | 35110 | 29940 | 26940 |
| 3.499 | 3.873 | -2.00030 | 2609.10001 | 34.26800 | 5.41490 | 3.82670 | 2.59020 | 1.86590 | 31910 | 29320 | 25700 |
| 3.499 | 5.897 | -2.00360 | 2612.70001 | 34.31500 | 5.39820 | 3.88560 | 2.62150 | 1.87180 | 29998 | 24300 | 22750 |
| 3.499 | 7.941 | -2.01130 | 2612.70001 | 34.31500 | 5.38500 | 3.78120 | 2.64820 | 1.88250 | 30450 | 23210 | 23210 |
| 3.499 | 9.942 | -2.01790 | 2617.60001 | 34.38000 | 5.36820 | 3.75200 | 2.67850 | 1.89920 | 26380 | 22190 | 21670 |
| 3.489 | 11.971 | -2.02110 | 2614.10001 | 34.33300 | 5.31030 | 3.68940 | 2.68130 | 1.87550 | 26400 | 19690 | 20200 |
| 3.499 | 13.998 | -2.02160 | 2616.20001 | 34.36400 | 5.29970 | 3.66430 | 2.68640 | 1.89780 | 25530 | 18820 | 18820 |
| 3.499 | 16.031 | -2.02820 | 2614.10001 | 34.33300 | 5.15310 | 3.61990 | 2.70110 | 1.92670 | 26970 | 21290 | 21290 |
| 3.499 | 18.083 | -2.01960 | 2613.50000 | 34.35500 | 5.08700 | 3.58110 | 2.72750 | 1.96900 | 24140 | 21290 | 21290 |
| 3.499 | 20.096 | -2.01640 | 2614.10001 | 34.33300 | 4.98660 | 3.50700 | 2.69200 | 1.93380 | 27820 | 23690 | 22660 |
| 3.499 | 22.126 | -2.01280 | 2618.29999 | 34.39900 | 4.84120 | 3.43920 | 2.65340 | 1.98100 | 17820 | 17820 | 13370 |
| 3.499 | 24.161 | -2.00740 | 2623.29999 | 34.45400 | 4.73740 | 3.38870 | 2.65340 | 1.89160 | 25050 | 19980 | 16360 |
| 3.499 | 25.182 | -2.00100 | 2628.89999 | 34.52800 | 4.71960 | 3.36650 | 2.68920 | 1.93040 | 30500 | 24350 | 22810 |
| | GRADIENT | -.00437 | .51884 | .00692 | .00078 | -.00288 | .00224 | -.00023 | -.00062 | -.00016 | -.00050 |

(AETR083) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6880 IN. X0
LREF = 474.8080 IN. YMRP = .0000 IN. Y0
BREF = 936.6900 IN. ZMRP = 375.0800 IN. Z0
SCALE = .0300

RUN NO. 21/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| .596 | .077 | .18030 | 2642.39999 | 2077.39999 | 1.04550 | 1.03160 | 0.98680 | 0.97460 | 0.95170 | 0.94630 | 0.95580 |
| .596 | 2.128 | .20500 | 2642.39999 | 2077.39999 | 1.04720 | 1.03480 | 0.99110 | 0.97950 | 0.95800 | 0.94700 | 0.95540 |
| .597 | 4.186 | .20500 | 2642.39999 | 2076.00000 | 1.05118 | 1.03930 | 0.98680 | 0.98500 | 0.95200 | 0.94810 | 0.95630 |
| .596 | 6.256 | .21280 | 2642.39999 | 2076.10001 | 1.04890 | 1.03930 | 0.99720 | 0.98490 | 0.95030 | 0.94760 | 0.95660 |
| .596 | 8.352 | .21850 | 2642.39999 | 2077.39999 | 1.04760 | 1.03930 | 0.99840 | 0.98530 | 0.95080 | 0.94800 | 0.95638 |
| .596 | 10.447 | .21890 | 2642.39999 | 2078.10001 | 1.04360 | 1.02680 | 0.98640 | 0.98510 | 0.94830 | 0.94830 | 0.95640 |
| .596 | 12.543 | .21980 | 2642.39999 | 2078.10001 | 1.03940 | 1.02150 | 0.98700 | 0.98420 | 0.94730 | 0.94730 | 0.95640 |
| .596 | 14.659 | .22750 | 2642.39999 | 2077.39999 | 1.03110 | 1.01530 | 0.98530 | 0.98378 | 0.94560 | 0.94500 | 0.95660 |
| .596 | 16.776 | .22120 | 2642.39999 | 2077.39999 | 1.02160 | 1.00470 | 0.98230 | 0.98310 | 0.94700 | 0.94700 | 0.95700 |
| .594 | 18.880 | .21960 | 2642.39999 | 2078.00000 | 1.01160 | 0.99520 | 0.98770 | 0.97990 | 0.94610 | 0.94610 | 0.95770 |
| .594 | 21.008 | .20640 | 2642.39999 | 2081.00000 | 0.99560 | 0.97980 | 0.98070 | 0.97400 | 0.94390 | 0.94390 | 0.92560 |
| .599 | 23.112 | .20610 | 2632.50000 | 2068.10001 | 0.98260 | 0.96820 | 0.97878 | 0.97000 | 0.92540 | 0.94390 | 0.92560 |
| .597 | 25.193 | .21330 | 2631.79999 | 2067.50000 | 0.96460 | 0.95680 | 0.97130 | 0.96380 | 0.91990 | 0.92350 | 0.91750 |
| GRADIENT | | .00501 | .03802 | .34081 | .00136 | .00127 | .00248 | .00253 | .00007 | .00044 | .00627 |

RUN NO. 18/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| .960 | .047 | .19640 | 2114.00000 | 1250.20000 | 1.15980 | 1.11990 | 1.06370 | 1.01410 | 0.87660 | 0.87110 | 0.86680 |
| .892 | 2.145 | .21110 | 2114.70000 | 1252.39999 | 1.15660 | 1.12330 | 1.04440 | 1.01140 | 0.87630 | 0.87210 | 0.86680 |
| .901 | 4.251 | .21320 | 2117.60000 | 1250.89999 | 1.16250 | 1.12660 | 1.05450 | 1.01300 | 0.87440 | 0.87420 | 0.86940 |
| .893 | 6.354 | .21700 | 2115.39999 | 1252.39999 | 1.15980 | 1.12180 | 1.06520 | 1.02060 | 0.87500 | 0.87460 | 0.89070 |
| .897 | 8.469 | .21800 | 2114.70001 | 1254.80001 | 1.15580 | 1.11690 | 1.06530 | 1.02640 | 0.87210 | 0.87140 | 0.88580 |
| .898 | 10.597 | .21480 | 2117.60001 | 1255.30000 | 1.14980 | 1.10690 | 1.06820 | 1.03390 | 0.86560 | 0.86610 | 0.88130 |
| .835 | 12.720 | .22140 | 2116.20001 | 1252.39999 | 1.14260 | 1.09980 | 1.07690 | 1.04070 | 0.86340 | 0.86180 | 0.87450 |
| .940 | 14.889 | .22340 | 2118.89999 | 1250.89999 | 1.12710 | 1.08460 | 1.07710 | 1.04370 | 0.84770 | 0.84990 | 0.85660 |
| .899 | 17.013 | .21610 | 2116.20001 | 1253.10001 | 1.10930 | 1.06470 | 1.08350 | 1.04500 | 0.83380 | 0.83930 | 0.84300 |
| .897 | 19.197 | .21760 | 2117.60001 | 1256.70000 | 1.08560 | 1.04290 | 1.07500 | 1.05310 | 0.81890 | 0.81780 | 0.83080 |
| .836 | 21.283 | .20840 | 2116.20001 | 1251.39999 | 1.06010 | 1.01670 | 1.06870 | 1.05110 | 0.79790 | 0.79370 | 0.82400 |
| .837 | 23.397 | .20450 | 2116.20001 | 1256.00000 | 1.03700 | 0.99440 | 1.05940 | 1.04420 | 0.75920 | 0.75840 | 0.78930 |
| .828 | 25.439 | .21610 | 2115.20001 | 1258.00000 | 1.02930 | 0.98290 | 1.07160 | 1.04760 | 0.72270 | 0.70960 | 0.76620 |
| GRADIENT | | .00399 | .05671 | .16396 | .00145 | .00136 | .00336 | .00428 | -.00052 | -.00088 | -.00338 |

(AETROS) (02 AUG 76)

TABLATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

MACH = 1.199
LREF = 474.8000 IN.
BREF = 935.6800 IN.
SCALE = 0.3009
XMRP = 1076.6880 IN. X0
YMRP = .0000 IN. Y0
ZMRP = 375.0000 IN. Z0

BETA = .000
ALPRON = .000
ELEVON = .000
BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.199 | .004 | .17490 | 2008.60001 | 829.69000 | 1.43360 | 1.37880 | 1.42130 | 1.35370 | .63480 | .66370 | .67030 |
| 1.204 | 2.147 | .17600 | 2013.10801 | 824.84000 | 1.45830 | 1.37920 | 1.40450 | 1.37450 | .66730 | .66760 | .66730 |
| 1.208 | 4.270 | .22600 | 2007.89999 | 827.60000 | 1.45410 | 1.36550 | 1.41190 | 1.35990 | .67138 | .66700 | .66700 |
| 1.196 | 6.393 | .21090 | 2009.39999 | 833.17000 | 1.44350 | 1.35440 | 1.37140 | 1.37140 | .68870 | .67020 | .65680 |
| 1.198 | 8.561 | .22430 | 2009.39999 | 831.08000 | 1.43960 | 1.34650 | 1.42340 | 1.36790 | .66420 | .66420 | .66380 |
| 1.195 | 10.721 | .22420 | 2009.60001 | 833.88000 | 1.42320 | 1.32870 | 1.35990 | 1.36970 | .64110 | .64110 | .64110 |
| 1.196 | 12.879 | .21810 | 2009.39999 | 833.17000 | 1.41500 | 1.31320 | 1.40210 | 1.34100 | .65300 | .65300 | .65050 |
| 1.196 | 15.042 | .21970 | 2009.39999 | 833.17000 | 1.39760 | 1.29810 | 1.38790 | 1.34010 | .62090 | .62090 | .57640 |
| 1.198 | 17.205 | .21220 | 2008.80001 | 831.08000 | 1.37160 | 1.26310 | 1.40300 | 1.35440 | .63390 | .63390 | .56270 |
| 1.194 | 19.361 | .20240 | 2009.39999 | 838.75000 | 1.33970 | 1.23410 | 1.41470 | 1.35920 | .62390 | .62390 | .55600 |
| 1.190 | 21.506 | .20330 | 2010.80000 | 843.15000 | 1.30870 | 1.20610 | 1.36760 | 1.36100 | .61900 | .61900 | .56280 |
| 1.193 | 23.630 | .20800 | 2010.10001 | 835.98000 | 1.28690 | 1.18100 | 1.36210 | 1.34560 | .59960 | .59960 | .52670 |
| 1.189 | 25.739 | .20610 | 2009.39999 | 840.14000 | 1.24020 | 1.15290 | 1.35030 | 1.32560 | .59960 | .59960 | .52670 |
| GRADIENT | | .04211 | -.16707 | -.49469 | .00011 | -.00315 | -.00232 | -.00800 | -.00107 | .00180 | -.00078 |

RUN NO. 16/ 0 RVL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 12/ 0 RVL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.399 | .023 | .21940 | 2046.10001 | 644.15000 | 1.65298 | 1.52470 | 1.59210 | 1.56930 | .64340 | .60100 | .60320 |
| 1.401 | 2.114 | .23950 | 2046.80000 | 642.66000 | 1.65227 | 1.52110 | 1.58370 | 1.53290 | .64420 | .60370 | .60370 |
| 1.399 | 4.216 | .18480 | 2046.10001 | 643.41000 | 1.65020 | 1.50390 | 1.60580 | 1.52490 | .64060 | .59960 | .59630 |
| 1.395 | 6.341 | .20820 | 2046.10001 | 647.09000 | 1.63660 | 1.48510 | 1.66580 | 1.54750 | .63430 | .59960 | .59660 |
| 1.395 | 8.493 | .22180 | 2047.50000 | 647.80000 | 1.62830 | 1.47370 | 1.56870 | 1.53930 | .62960 | .59930 | .57050 |
| 1.394 | 10.632 | .22160 | 2047.50000 | 649.29000 | 1.60980 | 1.45940 | 1.58460 | 1.56910 | .62360 | .57940 | .56000 |
| 1.393 | 12.797 | .23020 | 2047.50000 | 647.80000 | 1.59760 | 1.43740 | 1.52210 | 1.52210 | .61010 | .58990 | .54380 |
| 1.395 | 14.956 | .20330 | 2047.50000 | 647.80000 | 1.56960 | 1.42010 | 1.56600 | 1.52010 | .59920 | .59480 | .50892 |
| 1.396 | 17.119 | .19820 | 2046.80000 | 647.08000 | 1.54920 | 1.40210 | 1.56640 | 1.53860 | .58970 | .57140 | .47240 |
| 1.392 | 19.270 | .20330 | 2046.80000 | 650.03000 | 1.51640 | 1.37860 | 1.56890 | 1.53130 | .58540 | .60170 | .45850 |
| 1.391 | 21.424 | .20840 | 2048.29999 | 652.22000 | 1.48478 | 1.35189 | 1.54361 | 1.51710 | .58660 | .58660 | .47130 |
| 1.391 | 23.562 | .20840 | 2048.29999 | 652.22000 | 1.46810 | 1.33030 | 1.49270 | 1.50510 | .58660 | .58660 | .45480 |
| 1.389 | 25.695 | .20960 | 2049.00000 | 651.36000 | 1.41630 | 1.30090 | 1.46970 | 1.43320 | .48950 | .48950 | .45480 |
| GRADIENT | | -.00827 | -.00031 | -.17601 | -.00064 | -.00327 | -.00499 | -.01058 | -.00067 | -.00034 | -.00165 |

(AETRO5) (02 AUG 76)

TABLATED DATA - 0A16) (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A16) ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = 0600 IN. Y0
BREF = 938.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA =
A/TLRON =

.000 ELEVOM = .000
.000 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 303A 0 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|-----------|---------|---------|---------|---------|---------|--------|--------|
| 1.556 | 0.037 | -52700 | 1569.39993 | 394.02000 | 1.84010 | 1.72940 | 1.50260 | 1.28250 | 6.0860 | 584.30 | 57760 |
| 1.556 | 2.035 | -53090 | 1573.17001 | 394.20000 | 1.84750 | 1.72250 | 1.70080 | 1.28620 | 61340 | 58100 | 58540 |
| 1.556 | 4.117 | -53140 | 1568.39999 | 394.02000 | 1.84030 | 1.71700 | 1.70080 | 1.30880 | 60820 | 58570 | 58240 |
| 1.556 | 6.192 | -53080 | 1570.10001 | 394.20000 | 1.86960 | 1.70010 | 1.65950 | 1.30910 | 60530 | 58730 | 57420 |
| 1.556 | 8.266 | -53130 | 1570.80000 | 394.38000 | 1.82160 | 1.68770 | 1.37390 | 1.31710 | 59330 | 58510 | 54410 |
| 1.556 | 10.334 | -53060 | 1573.00000 | 394.91000 | 1.81090 | 1.67010 | 1.35780 | 1.39430 | 57460 | 56700 | 54410 |
| 1.556 | 12.382 | -52880 | 1573.70000 | 395.09000 | 1.79080 | 1.64830 | 1.35780 | 1.39430 | 57090 | 52370 | 52370 |
| 1.556 | 14.468 | -53470 | 1573.00000 | 394.91000 | 1.76330 | 1.62830 | 1.35400 | 1.31060 | 56030 | 51500 | 51410 |
| 1.556 | 16.623 | -53340 | 1573.70000 | 395.09000 | 1.73770 | 1.60050 | 1.42540 | 1.29140 | 55460 | 52050 | 48910 |
| 1.556 | 18.720 | -53090 | 1573.78000 | 395.09000 | 1.70920 | 1.57170 | 1.69270 | 1.50160 | 54630 | 53040 | 47910 |
| 1.556 | 20.757 | -52790 | 1573.00000 | 394.91000 | 1.68890 | 1.54740 | 1.64340 | 1.53400 | 54750 | 51630 | 46940 |
| 1.555 | 24.920 | -51890 | 1573.00000 | 394.91000 | 1.62810 | 1.49530 | 1.65620 | 1.39370 | 49430 | 47280 | 42930 |
| 1.555 | 25.945 | -51760 | 1573.70000 | 395.09000 | 1.54170 | 1.47100 | 1.69770 | 1.27620 | 48870 | 47610 | 40260 |
| GRADIENT | | | | | .00002 | -.00304 | .05115 | -.00644 | -.00011 | .00036 | .00264 |

RUN NO. 306A 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.750 | -.087 | -35100 | 1657.10001 | 311.25000 | 2.08470 | 1.92980 | 1.43390 | 1.37120 | 5.7650 | 46240 | 52580 |
| 1.750 | 1.917 | -36270 | 1657.82000 | 311.38000 | 2.08810 | 1.92330 | 1.79460 | 1.39310 | 57610 | 52540 | 52940 |
| 1.750 | 3.999 | -36290 | 1657.10001 | 311.25000 | 2.09100 | 1.90880 | 1.82590 | 1.39220 | 57420 | 52750 | 53090 |
| 1.750 | 6.080 | -36260 | 1656.39999 | 311.12000 | 2.08110 | 1.86670 | 1.87630 | 1.39900 | 56310 | 52430 | 53170 |
| 1.750 | 8.169 | -36240 | 1657.10001 | 311.25000 | 2.06680 | 1.80700 | 1.44290 | 1.40290 | 54760 | 51850 | 51970 |
| 1.750 | 10.231 | -36110 | 1657.10001 | 311.25000 | 2.04440 | 1.87070 | 1.44510 | 1.47090 | 53380 | 49390 | 49500 |
| 1.750 | 12.231 | -36270 | 1656.39999 | 311.25000 | 2.02490 | 1.84940 | 1.44580 | 1.66540 | 52770 | 46930 | 48720 |
| 1.750 | 14.373 | -35810 | 1657.10001 | 311.25000 | 2.00330 | 1.82950 | 1.44490 | 1.60520 | 47860 | 46430 | 46430 |
| 1.750 | 16.464 | -35740 | 1656.39999 | 311.12000 | 1.97160 | 1.81780 | 1.44770 | 1.40520 | 46240 | 45110 | 45110 |
| 1.750 | 18.597 | -35160 | 1656.39999 | 311.12000 | 1.99480 | 1.78990 | 1.67870 | 1.46780 | 45750 | 43010 | 42740 |
| 1.750 | 20.749 | -34820 | 1657.10001 | 311.25000 | 1.91710 | 1.74160 | 1.68820 | 1.59450 | 43640 | 40560 | 38440 |
| 1.750 | 24.749 | -34340 | 1657.10001 | 311.25000 | 1.84800 | 1.68990 | 1.68770 | 1.48210 | 45080 | 37380 | 36260 |
| 1.750 | 26.765 | -33730 | 1656.39999 | 311.12000 | 1.83740 | 1.68230 | 1.58220 | 1.43110 | 43770 | 36850 | 36850 |
| GRADIENT | | | | | .00154 | -.00516 | .09438 | -.00515 | -.00057 | -.00124 | .00124 |

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OF POOR QUALITY

(METROS) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-09K)
ARC 11-97-87-09+ 0A161 ORBITER - RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LPSF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0600

PARAMETRIC DATA

BETA = .000 ELEVON = .000
MILRON = .000 SDFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.995 | -.019 | -.87570 | 1842.39999 | 236.84000 | 2.44300 | 2.18110 | 1.50210 | 1.45120 | .52520 | .47050 | .46150 |
| 1.995 | 1.966 | -.87670 | 1841.70000 | 236.75000 | 2.44820 | 2.18090 | 1.51230 | 1.45800 | 5.290 | .46790 | .45720 |
| 1.995 | 4.033 | -.87800 | 1842.39999 | 236.84000 | 2.45940 | 2.18150 | 1.52740 | 1.46170 | 5.3190 | .46830 | .45750 |
| 1.995 | 6.093 | -.87790 | 1842.39999 | 236.84000 | 2.44750 | 2.18260 | 1.53860 | 1.47070 | 5.2370 | .46150 | .46980 |
| 1.996 | 8.153 | -.87770 | 1842.39999 | 236.84000 | 2.41330 | 2.1820 | 1.53940 | 1.47820 | 5.1050 | .45200 | .45060 |
| 1.996 | 10.211 | -.87780 | 1843.10001 | 236.84000 | 2.38930 | 2.07300 | 1.54250 | 1.47540 | 4.9410 | .43410 | .44450 |
| 1.996 | 12.254 | -.87470 | 1842.39999 | 236.84000 | 2.35500 | 2.07950 | 1.55700 | 1.46540 | 4.8550 | .42730 | .44750 |
| 1.996 | 14.335 | -.87310 | 1842.39999 | 236.84000 | 2.34340 | 2.07430 | 1.57400 | 1.46540 | 4.6780 | .39500 | .42650 |
| 1.998 | 16.477 | -.87050 | 1843.10001 | 236.94000 | 2.31710 | 2.02190 | 1.55660 | 1.46410 | 4.6410 | .39300 | .43470 |
| 1.998 | 18.565 | -.86550 | 1842.39999 | 236.84000 | 2.27990 | 2.0110 | 1.57520 | 1.45570 | 4.4110 | .37110 | .41560 |
| 1.998 | 20.590 | -.86540 | 1842.39999 | 236.84000 | 2.24060 | 1.99170 | 1.58070 | 1.45240 | 4.2070 | .35070 | .39290 |
| 1.998 | 22.667 | -.86160 | 1842.39999 | 236.84000 | 2.18900 | 1.94770 | 1.75120 | 1.45410 | 4.2630 | .36440 | .37490 |
| 1.996 | 24.727 | -.85810 | 1841.70000 | 236.75000 | 2.14000 | 1.88470 | 1.65920 | 1.45690 | 4.1320 | .33660 | .34730 |
| 1.996 | 25.753 | -.85530 | 1843.10001 | 236.94000 | 2.10480 | 1.84970 | 1.62300 | 1.43420 | 4.0690 | .32500 | .33260 |
| GRADIENT | | -.00057 | .00232 | .00069 | .00406 | -.07828 | .00625 | .00680 | -.00159 | -.00054 | .00147 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 2.250 | -.096 | -1.03120 | 2050.29999 | 178.26000 | 2.77130 | 2.39540 | 1.58650 | 1.51980 | .47010 | .41340 | .37150 |
| 2.250 | 1.839 | -1.03020 | 2050.29999 | 178.25000 | 2.76140 | 2.38850 | 1.60150 | 1.52880 | .46020 | .41730 | .36450 |
| 2.250 | 3.963 | -1.03460 | 2050.29999 | 178.20000 | 2.75080 | 2.38320 | 1.62400 | 1.52540 | .47070 | .39400 | .37900 |
| 2.250 | 6.065 | -1.03260 | 2050.29999 | 178.26000 | 2.74940 | 2.37740 | 1.64750 | 1.52900 | .47580 | .39820 | .38220 |
| 2.250 | 8.058 | -1.02910 | 2050.29999 | 178.26000 | 2.74640 | 2.37600 | 1.64830 | 1.54080 | .46050 | .39380 | .39180 |
| 2.250 | 10.108 | -1.02810 | 2050.29999 | 178.20000 | 2.71970 | 2.34170 | 1.65480 | 1.54120 | .44240 | .36770 | .37560 |
| 2.250 | 12.143 | -1.02740 | 2050.29999 | 178.26000 | 2.69990 | 2.32380 | 1.66180 | 1.52030 | .42840 | .34260 | .35870 |
| 2.250 | 14.213 | -1.02570 | 2050.29999 | 178.26000 | 2.69990 | 2.32380 | 1.66180 | 1.53360 | .41800 | .32630 | .34520 |
| 2.250 | 16.346 | -1.02420 | 2050.29999 | 178.26000 | 2.65440 | 2.29140 | 1.66810 | 1.53090 | .40480 | .31820 | .34500 |
| 2.250 | 18.426 | -1.02220 | 2050.29999 | 178.20000 | 2.60200 | 2.24440 | 1.65700 | 1.52660 | .39870 | .30540 | .34290 |
| 2.250 | 20.441 | -1.01700 | 2050.29999 | 178.26000 | 2.53810 | 2.18310 | 1.74690 | 1.52490 | .37180 | .29220 | .33410 |
| 2.250 | 22.512 | -1.01480 | 2050.29999 | 178.26000 | 2.49550 | 2.15110 | 1.82120 | 1.48560 | .37200 | .28540 | .31750 |
| 2.250 | 24.554 | -1.01070 | 2050.29999 | 178.20000 | 2.45360 | 2.10950 | 1.75650 | 1.50260 | .37240 | .27980 | .29390 |
| 2.250 | 25.584 | -1.00770 | 2050.29999 | 178.14000 | 2.41590 | 2.07400 | 1.71620 | 1.47560 | .36580 | .26910 | .28180 |
| GRADIENT | | -.00010 | -.17428 | -.01494 | -.00258 | -.00258 | .00625 | .00137 | -.00018 | -.00133 | .00164 |

GRADIENT INTERVAL = -5.00/ 5.00

(AETROS) (02 AUG 75)

TABLATED DATA - OALBA (ARC 11-97-87-094)
ARC 11-97-87-094 OALBA ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALFON = .000 EDFLAP = -7.170

RUN NO. 443/ 0 RVAL = 2.01 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .114 | .04560 | 1497.30000 | 87.84500 | 3.14720 | 2.81630 | 1.71860 | 1.66620 | 4.0710 | .40310 | .35470 |
| 2.499 | 2.147 | .04520 | 1497.30000 | 87.84500 | 3.14080 | 2.81960 | 1.72590 | 1.67090 | 4.1720 | 4.1720 | 3.3240 |
| 2.499 | 4.196 | .04450 | 1496.60001 | 87.77300 | 3.12650 | 2.81160 | 1.73160 | 1.67100 | 3.6290 | 3.6290 | 3.1650 |
| 2.499 | 6.218 | .04350 | 1497.30000 | 87.84500 | 3.10950 | 2.79020 | 1.74560 | 1.67230 | 3.4940 | 3.4940 | 3.4940 |
| 2.499 | 8.236 | .04270 | 1497.30000 | 87.84500 | 3.09650 | 2.76350 | 1.76240 | 1.68370 | 3.4760 | 3.4760 | 3.5370 |
| 2.499 | 10.254 | .04160 | 1496.60001 | 87.77300 | 3.08610 | 2.73820 | 1.76790 | 1.68920 | 3.2860 | 3.2860 | 3.5080 |
| 2.499 | 12.272 | .03960 | 1497.30000 | 87.84500 | 3.05670 | 2.71980 | 1.78190 | 1.70520 | 3.2340 | 3.2340 | 3.3450 |
| 2.499 | 14.290 | .03800 | 1496.60001 | 87.77300 | 3.03990 | 2.69290 | 1.78870 | 1.71510 | 3.0740 | 3.0740 | 3.2160 |
| 2.499 | 16.308 | .03570 | 1497.30000 | 87.84500 | 3.08590 | 2.64880 | 1.77510 | 1.70250 | 2.8410 | 2.8410 | 3.0830 |
| 2.499 | 18.326 | .03420 | 1496.60001 | 87.77300 | 2.95190 | 2.61660 | 1.78200 | 1.71140 | 2.7030 | 2.7030 | 3.0120 |
| 2.499 | 20.344 | .03280 | 1497.30000 | 87.84500 | 2.89330 | 2.56450 | 1.77180 | 1.69310 | 2.6490 | 2.6490 | 2.9110 |
| 2.499 | 22.362 | .03080 | 1496.60001 | 87.77300 | 2.84950 | 2.50740 | 1.74580 | 1.68630 | 2.5280 | 2.5280 | 2.8510 |
| 2.499 | 24.380 | .02870 | 1497.30000 | 87.84500 | 2.74810 | 2.45960 | 1.73750 | 1.68630 | 2.4100 | 2.4100 | 2.7570 |
| 2.499 | 26.398 | .02780 | 1496.60001 | 87.77300 | 2.71110 | 2.43020 | 1.71070 | 1.66630 | 2.3600 | 2.3600 | 2.6570 |
| GRADIENT | | .00027 | -.17206 | -.00319 | -.00509 | -.00116 | .00319 | .00116 | -.00893 | -.00968 | -.00939 |

RUN NO. 438/ 0 RVAL = 1.97 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .060 | .14640 | 2017.80000 | 51.77200 | 4.00950 | 3.57820 | 1.90260 | 1.88920 | .33970 | .27460 | .27460 |
| 3.040 | 2.085 | .14750 | 2017.80000 | 51.77200 | 4.01830 | 3.59810 | 2.00070 | 1.92200 | 3.5200 | 3.2910 | .27680 |
| 3.040 | 4.141 | .14700 | 2017.10001 | 51.75300 | 4.01520 | 3.57700 | 2.00890 | 1.91650 | 3.2450 | 2.8530 | .25800 |
| 3.040 | 6.135 | .14690 | 2017.80000 | 51.77200 | 4.00600 | 3.56120 | 2.01920 | 1.92390 | 3.2330 | 2.8200 | .25470 |
| 3.040 | 8.168 | .14540 | 2017.10001 | 51.75300 | 3.97920 | 3.51040 | 2.03220 | 1.92610 | 3.1790 | 2.6650 | .23290 |
| 3.040 | 10.203 | .14130 | 2017.80000 | 51.77200 | 3.97080 | 3.49590 | 2.07110 | 1.93190 | 3.4570 | 2.6760 | .28760 |
| 3.040 | 12.242 | .14670 | 2017.10001 | 51.75300 | 3.92530 | 3.45270 | 2.05920 | 1.95290 | 2.9970 | 2.4630 | .24630 |
| 3.040 | 14.280 | .13990 | 2017.80000 | 51.77200 | 3.89590 | 3.43070 | 2.06710 | 1.94400 | 2.9350 | 2.3390 | .23380 |
| 3.040 | 16.323 | .13640 | 2017.10001 | 51.75300 | 3.85170 | 3.37650 | 2.08750 | 1.97140 | 2.9950 | 2.3800 | .23120 |
| 3.040 | 18.344 | .13460 | 2017.80000 | 51.77200 | 3.78200 | 3.32790 | 2.06850 | 1.96550 | 2.9720 | 2.3600 | .23120 |
| 3.040 | 20.382 | .13200 | 2017.10001 | 51.75300 | 3.69390 | 3.23490 | 2.04380 | 1.94460 | 2.7490 | 2.1330 | .22340 |
| 3.040 | 22.424 | .12550 | 2017.80000 | 51.75300 | 3.62400 | 3.14550 | 2.01990 | 1.94490 | 2.7130 | 2.0970 | .22340 |
| 3.040 | 24.493 | .12190 | 2017.10001 | 51.77200 | 3.54930 | 3.10450 | 2.01990 | 1.95490 | 2.6520 | 2.1330 | .23330 |
| 3.040 | 26.581 | .11300 | 2017.80000 | 51.77200 | 3.49110 | 3.10450 | 1.98220 | 1.92470 | 2.6470 | 1.9620 | .19650 |
| GRADIENT | | -.00034 | -.17195 | -.00467 | -.00139 | -.00302 | .00868 | .00868 | -.03379 | -.00122 | -.00487 |

TABULATED DATA - OAMB1 (ARC 11-97-87-094)

ARC 11-97-87-094 OAMB1 ORBITER - RAKES

(AETROS) (02 AUG 76)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2890.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 995.8800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 ATLRON = .000 EDFLAP = -7.170

RUN NO. 4337 0 QN/L = 2.00 GRADIENT INTERVAL = -5.00 - 5.00

| MACH | ALPHA | BETA | FT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PSS/P | PS7/P |
|-------|----------|---------|------------|----------|---------|---------|---------|---------|--------|--------|--------|-------|
| 3.499 | -1.173 | -1.0250 | 2639.50000 | 34.65800 | 4.86100 | 4.26830 | 2.25520 | 2.11210 | .39440 | .25310 | .27780 | |
| 3.499 | 1.634 | .17120 | 2642.20001 | 34.67700 | 4.86980 | 4.27230 | 2.25468 | 2.11650 | .39900 | .29810 | .27730 | |
| 3.499 | 3.636 | .09980 | 2644.89899 | 34.68600 | 4.88150 | 4.28870 | 2.31110 | 2.16320 | .36810 | .32220 | .28140 | |
| 3.499 | 5.895 | .08920 | 2644.50000 | 34.73300 | 4.86320 | 4.25350 | 2.31150 | 2.15390 | .33890 | .29870 | .26250 | |
| 3.499 | 7.924 | .09710 | 2645.60001 | 34.76100 | 4.82260 | 4.19870 | 2.30010 | 2.14210 | .30760 | .26180 | .23530 | |
| 3.499 | 9.951 | .09350 | 2645.60001 | 34.77000 | 4.78430 | 4.16170 | 2.32980 | 2.16550 | .29990 | .22230 | .21200 | |
| 3.499 | 11.972 | .09570 | 2647.29999 | 34.77000 | 4.73260 | 4.10110 | 2.32120 | 2.15230 | .29270 | .19550 | .19750 | |
| 3.499 | 13.998 | .09510 | 2652.29999 | 34.83600 | 4.69310 | 4.05090 | 2.34360 | 2.17040 | .25410 | .18790 | .20750 | |
| 3.499 | 16.028 | .09320 | 2653.00000 | 34.84400 | 4.64270 | 4.02600 | 2.35640 | 2.19570 | .21350 | .17840 | .17640 | |
| 3.499 | 18.053 | .09050 | 2650.10001 | 34.80700 | 4.55210 | 3.92310 | 2.32450 | 2.17150 | .23440 | .20990 | .20990 | |
| 3.499 | 20.101 | .08710 | 2651.60001 | 34.82600 | 4.47970 | 3.87920 | 2.34220 | 2.20480 | .25680 | .17930 | .18610 | |
| 3.499 | 22.155 | .08680 | 2652.29999 | 34.83500 | 4.37690 | 3.80550 | 2.31460 | 2.18730 | .24720 | .17830 | .17869 | |
| 3.499 | 24.185 | .08500 | 2651.60001 | 34.82600 | 4.26950 | 3.74980 | 2.28760 | 2.17590 | .24950 | .17680 | .17680 | |
| 3.499 | 26.185 | .08680 | 2661.60001 | 34.82600 | 4.25740 | 3.75410 | 2.32560 | 2.22910 | .31760 | .25680 | .24550 | |
| | GRADIENT | | | | | | .61376 | .01257 | .00336 | .00716 | .00030 | |

TABULATED DATA - 0A16 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES.

PARAMETRIC DATA

BETA = 2.000 ELEVON = .008
VILRON = .000 BDFCAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = +74.8060 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 22 / 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|--------|--------|--------|--------|
| .598 | .095 | 2.26100 | 2631.00000 | 2066.10001 | 1.03250 | 1.04850 | .98110 | .98230 | .95120 | .94780 | .95200 |
| .597 | 2.139 | 2.28520 | 2631.00000 | 2068.20001 | 1.03350 | 1.04990 | .98330 | .98620 | .95020 | .94650 | .95500 |
| .597 | 4.199 | 2.30270 | 2631.79999 | 2067.50000 | 1.03430 | 1.05130 | .98780 | .99200 | .95030 | .94720 | .95520 |
| .597 | 6.261 | 2.30950 | 2631.79999 | 2069.20001 | 1.03500 | 1.05010 | .98950 | .99380 | .95030 | .94630 | .95450 |
| .597 | 8.390 | 2.31120 | 2631.79999 | 2069.20001 | 1.03180 | 1.04800 | .98850 | .99330 | .94950 | .94830 | .95500 |
| .597 | 10.483 | 2.32480 | 2631.79999 | 2068.89999 | 1.02740 | 1.04300 | .98500 | .99370 | .94770 | .94580 | .95380 |
| .597 | 12.530 | 2.30820 | 2631.79999 | 2068.20001 | 1.02430 | 1.03940 | .98750 | .99460 | .94610 | .94370 | .95310 |
| .598 | 14.785 | 2.29510 | 2631.79999 | 2066.10001 | 1.01640 | 1.03040 | .98830 | .99530 | .94420 | .94150 | .95130 |
| .597 | 16.902 | 2.29540 | 2631.79999 | 2069.89999 | 1.00460 | 1.01880 | .98210 | .99080 | .94000 | .93310 | .93620 |
| .597 | 19.106 | 2.28720 | 2631.79999 | 2068.20001 | .99550 | 1.00930 | .98210 | .98950 | .93310 | .92470 | .92950 |
| .597 | 21.104 | 2.28070 | 2631.79999 | 2068.89999 | .98280 | .98760 | .97470 | .98610 | .92760 | .92030 | .92950 |
| .595 | 23.191 | 2.28840 | 2632.50000 | 2071.70001 | .95640 | .99040 | .96730 | .97970 | .92330 | .91690 | .91830 |
| .597 | 25.244 | 2.31300 | 2631.79999 | 2068.89999 | .94960 | .96870 | .95870 | .97310 | .91740 | .90930 | .91140 |
| | GRADIENT | .01016 | .19515 | .34019 | .30044 | .00068 | .00163 | .00236 | .00022 | .00015 | .00005 |

RUN NO. 19 / 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .898 | .066 | 2.27070 | 2115.39999 | 1253.80000 | 1.11990 | 1.15570 | 1.03980 | 1.02260 | .87630 | .87040 | .88190 |
| .901 | 2.161 | 2.29630 | 2115.39999 | 1249.50000 | 1.12570 | 1.16210 | 1.03630 | 1.06670 | .87710 | .87700 | .86720 |
| .901 | 4.269 | 2.31460 | 2117.60001 | 1250.20000 | 1.13000 | 1.16410 | 1.04270 | 1.03020 | .87850 | .88030 | .89050 |
| .901 | 6.380 | 2.32500 | 2116.20001 | 1250.20000 | 1.12780 | 1.15980 | 1.05010 | 1.04300 | .87520 | .87690 | .88920 |
| .901 | 8.493 | 2.31770 | 2114.70001 | 1249.50000 | 1.12690 | 1.15890 | 1.05630 | 1.05010 | .87650 | .87740 | .89130 |
| .901 | 10.620 | 2.32980 | 2116.89999 | 1248.10001 | 1.11900 | 1.14960 | 1.09680 | 1.05410 | .87220 | .86950 | .88720 |
| .898 | 12.782 | 2.31150 | 2116.20001 | 1253.80000 | 1.10610 | 1.13090 | 1.05760 | 1.05490 | .85360 | .85360 | .87580 |
| .901 | 14.935 | 2.33270 | 2114.70001 | 1248.80000 | 1.09320 | 1.12180 | 1.06850 | 1.06140 | .85080 | .84570 | .86160 |
| .901 | 17.120 | 2.33330 | 2115.39999 | 1248.80000 | 1.07650 | 1.10680 | 1.06830 | 1.06590 | .84220 | .84370 | .85260 |
| .900 | 19.272 | 2.32860 | 2115.39999 | 1250.89999 | 1.05340 | 1.08160 | 1.05940 | 1.06800 | .82340 | .82930 | .84150 |
| .887 | 21.373 | 2.31540 | 2115.39999 | 1254.60001 | 1.02940 | 1.05770 | 1.05950 | 1.07260 | .80230 | .79550 | .81020 |
| .895 | 23.439 | 2.31540 | 2114.70001 | 1256.70000 | .98810 | 1.02810 | 1.05600 | 1.06600 | .76120 | .75390 | .77890 |
| .895 | 25.493 | 2.32260 | 2115.89999 | 1258.20000 | .97000 | 1.00110 | 1.05040 | 1.06280 | .73890 | .71760 | .73230 |
| | GRADIENT | .01034 | .52395 | .85542 | .00240 | .00290 | .00069 | .00181 | .00062 | .00235 | .00255 |

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(AE7R06) (02 AUG 76)

TABULATED DATA - GAMEN (ARC 11-97-87-084)

ARC 11-97-87-094 OA1618 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

DELTA = 2.000 ELEVON = .000
 MILLIRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|---------|--------|
| 1.556 | .040 | 1.52250 | 1558.80000 | 391.36000 | 1.75540 | 1.81290 | 1.43970 | 1.38660 | .59830 | .56610 | .57830 |
| 1.556 | 2.035 | 1.52370 | 1560.89999 | 391.89000 | 1.75470 | 1.80570 | 1.63750 | 1.40180 | .59690 | .56390 | .59060 |
| 1.556 | 4.118 | 1.52170 | 1562.38999 | 392.24000 | 1.75180 | 1.79050 | 1.65000 | 1.40590 | .59950 | .56200 | .59050 |
| 1.556 | 6.189 | 1.52060 | 1562.38999 | 392.24000 | 1.74980 | 1.77050 | 1.53770 | 1.40540 | .60460 | .56250 | .57480 |
| 1.556 | 8.263 | 1.52390 | 1563.60000 | 392.60000 | 1.73700 | 1.75940 | 1.50850 | 1.41898 | .59140 | .57740 | .58660 |
| 1.556 | 10.330 | 1.52410 | 1563.60000 | 392.60000 | 1.72390 | 1.74060 | 1.30600 | 1.42120 | .57880 | .57560 | .55260 |
| 1.556 | 12.377 | 1.52620 | 1563.10001 | 392.42000 | 1.70130 | 1.72470 | 1.30660 | 1.45240 | .59950 | .56210 | .52510 |
| 1.556 | 14.464 | 1.52620 | 1563.10001 | 392.42000 | 1.67790 | 1.70890 | 1.50530 | 1.45370 | .49590 | .49590 | .51390 |
| 1.556 | 16.611 | 1.53060 | 1562.38999 | 392.24000 | 1.65570 | 1.69080 | 1.63900 | 1.39580 | .55170 | .58830 | .48430 |
| 1.556 | 18.708 | 1.53370 | 1563.10001 | 392.42000 | 1.63550 | 1.67430 | 1.93210 | 1.37590 | .54280 | .57220 | .47680 |
| 1.556 | 20.744 | 1.53470 | 1563.89999 | 393.13000 | 1.60300 | 1.63880 | 1.50690 | 1.44040 | .54730 | .53110 | .46880 |
| 1.556 | 22.901 | 1.53140 | 1567.30000 | 393.49000 | 1.55650 | 1.60270 | 1.47390 | 1.34740 | .49600 | .44370 | .43880 |
| 1.556 | 25.950 | 1.55060 | 1566.60001 | 393.34000 | 1.54060 | 1.58770 | 1.45130 | 1.36460 | .48630 | .42770 | .43670 |
| 1.556 | GRADIENT | -.00020 | .88167 | .21545 | -.00084 | -.00551 | .05124 | .00486 | .00830 | -.00100 | .00297 |

RUN NO. 392/ 0 RAK/L = 3.03 GRADIENT INTERVAL = -5.00 5.00

RUN NO. 309/ 0 RAK/L = 3.03 GRADIENT INTERVAL = -5.00 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.750 | -.074 | 1.70250 | 1657.10081 | 311.25000 | 1.98690 | 2.04420 | 1.33200 | 1.45620 | .56910 | .52990 | .51680 |
| 1.750 | 3.980 | 1.70530 | 1655.70000 | 310.99000 | 1.99290 | 2.03890 | 1.34670 | 1.46590 | .56580 | .52080 | .51570 |
| 1.750 | 6.061 | 1.70490 | 1655.70000 | 310.99000 | 1.99750 | 2.03780 | 1.35010 | 1.47390 | .56760 | .51680 | .52540 |
| 1.750 | 8.125 | 1.70320 | 1655.70000 | 310.99000 | 1.99468 | 2.02130 | 1.39780 | 1.47950 | .57100 | .51570 | .53450 |
| 1.750 | 10.189 | 1.70260 | 1656.39999 | 311.12000 | 1.97560 | 2.00110 | 1.36480 | 1.48310 | .55820 | .53200 | .52630 |
| 1.750 | 12.252 | 1.70570 | 1656.39999 | 311.12000 | 1.95780 | 1.98790 | 1.35020 | 1.49250 | .54530 | .52870 | .50590 |
| 1.750 | 14.316 | 1.70710 | 1658.33999 | 311.12000 | 1.93150 | 1.96490 | 1.35280 | 1.50170 | .53410 | .48490 | .46850 |
| 1.750 | 16.458 | 1.71140 | 1656.39999 | 311.12000 | 1.90280 | 1.93520 | 1.34390 | 1.51620 | .52470 | .46210 | .45220 |
| 1.750 | 18.550 | 1.71570 | 1655.70000 | 310.99000 | 1.87380 | 1.91930 | 1.49250 | 1.50310 | .51440 | .47620 | .44940 |
| 1.750 | 20.579 | 1.71820 | 1656.39999 | 311.12000 | 1.84730 | 1.89440 | 1.56800 | 1.48290 | .51950 | .48530 | .44350 |
| 1.750 | 22.729 | 1.72120 | 1656.39999 | 311.12000 | 1.80790 | 1.85130 | 1.52910 | 1.53870 | .50950 | .47410 | .43250 |
| 1.750 | 25.752 | 1.72950 | 1655.70000 | 310.99000 | 1.78840 | 1.80400 | 1.45520 | 1.53920 | .46540 | .39920 | .41000 |
| 1.750 | GRADIENT | 1.73400 | 1655.70000 | 310.99000 | 1.70090 | 1.74890 | 1.44710 | 1.48910 | .45430 | .38290 | .39040 |
| | | .00249 | -.31220 | -.06355 | .00261 | -.00157 | .00444 | .00435 | -.00012 | -.00321 | .00213 |

(AE7R06) (02 AUG 76)

TABLATED DATA - 0A16N (ARC 11-97-87-894)
ARC 11-97-87-094 0A16N ORBITER + RAYES

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1075.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
XILRON = .000 BDFLAP = -7.170

RUN NO. 312/ 0 RAVL = 3.05 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|---------|--------|
| 1.996 | -0.14 | 1.18280 | 1843.10001 | 236.94000 | 2.28430 | 2.30750 | 1.38690 | 1.54400 | .52000 | .49380 | .44580 |
| 1.996 | 1.975 | 1.18340 | 1843.10001 | 236.94000 | 2.26770 | 2.29230 | 1.39670 | 1.56190 | .51430 | .46710 | .44690 |
| 1.996 | 4.041 | 1.18150 | 1842.39999 | 236.84000 | 2.28240 | 2.26820 | 1.41230 | 1.56250 | .52020 | .44758 | .44980 |
| 1.996 | 6.099 | 1.18080 | 1841.70000 | 236.75000 | 2.27900 | 2.25060 | 1.42100 | 1.56610 | .52170 | .44758 | .46020 |
| 1.996 | 8.161 | 1.18130 | 1842.39999 | 236.84000 | 2.26070 | 2.23160 | 1.42350 | 1.56840 | .51598 | .44300 | .46180 |
| 1.996 | 10.216 | 1.18663 | 1843.10001 | 238.94000 | 2.24380 | 2.21180 | 1.42890 | 1.57310 | .49630 | .44310 | .44310 |
| 1.996 | 12.298 | 1.18390 | 1842.39999 | 236.84000 | 2.21840 | 2.19680 | 1.42720 | 1.59120 | .48920 | .42110 | .43530 |
| 1.996 | 14.341 | 1.18510 | 1842.39999 | 236.84000 | 2.18710 | 2.17660 | 1.42420 | 1.65820 | .48910 | .38910 | .41890 |
| 1.996 | 16.477 | 1.18530 | 1841.70000 | 236.75000 | 2.15350 | 2.15880 | 1.41350 | 1.57800 | .46020 | .38450 | .42250 |
| 1.996 | 18.561 | 1.19330 | 1842.39999 | 236.84000 | 2.12650 | 2.13890 | 1.36500 | 1.56770 | .46460 | .39450 | .39890 |
| 1.996 | 20.582 | 1.19500 | 1843.10001 | 238.94000 | 2.09160 | 2.09540 | 1.60070 | 1.57310 | .44460 | .36600 | .38090 |
| 1.996 | 22.659 | 1.19460 | 1842.39999 | 236.84000 | 2.04500 | 2.07040 | 1.54980 | 1.65050 | .43660 | .33440 | .36690 |
| 1.996 | 24.721 | 1.20490 | 1841.70000 | 236.75000 | 1.97590 | 2.03340 | 1.43330 | 1.60270 | .41900 | .33500 | .34250 |
| 1.996 | 25.743 | 1.25640 | 1842.39999 | 236.84000 | 1.84380 | 2.04600 | 1.42050 | 1.52280 | .41960 | .33040 | .32520 |
| | GRADIENT | -.00032 | -.17373 | -.02482 | -.00042 | -.00971 | .00627 | .00453 | .00007 | -.01009 | .00056 |

RUN NO. 309/ 0 RVAL = 3.05 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 2.250 | -0.74 | 1.03080 | 2059.60001 | 178.20000 | 2.55780 | 2.60050 | 1.46660 | 1.61310 | .47960 | .42580 | .37710 |
| 2.250 | 1.899 | 1.03030 | 2059.60001 | 178.20000 | 2.56180 | 2.59350 | 1.48360 | 1.63100 | .46970 | .42380 | .37110 |
| 2.250 | 3.954 | 1.02960 | 2059.60001 | 178.20000 | 2.55360 | 2.58030 | 1.50070 | 1.64210 | .46640 | .40270 | .37280 |
| 2.250 | 6.004 | 1.02880 | 2059.60001 | 178.20000 | 2.54480 | 2.56170 | 1.51950 | 1.65600 | .46540 | .38140 | .36640 |
| 2.250 | 8.059 | 1.02980 | 2059.60001 | 178.20000 | 2.53800 | 2.53900 | 1.53940 | 1.66380 | .47070 | .38100 | .38100 |
| 2.250 | 10.108 | 1.03370 | 2059.60001 | 178.20000 | 2.54730 | 2.52330 | 1.53530 | 1.66380 | .44540 | .35070 | .36770 |
| 2.250 | 12.142 | 1.03480 | 2058.99999 | 178.14000 | 2.49630 | 2.49690 | 1.55300 | 1.66060 | .43270 | .34710 | .35900 |
| 2.250 | 14.211 | 1.03970 | 2059.60001 | 178.20000 | 2.47850 | 2.46860 | 1.55130 | 1.66290 | .41790 | .32520 | .35710 |
| 2.250 | 16.343 | 1.03960 | 2058.99999 | 178.14000 | 2.45640 | 2.44050 | 1.55490 | 1.66450 | .40740 | .31580 | .34670 |
| 2.250 | 18.418 | 1.04390 | 2058.99999 | 178.14000 | 2.41980 | 2.42790 | 1.53250 | 1.65840 | .39910 | .30640 | .33130 |
| 2.250 | 20.432 | 1.04280 | 2058.99999 | 178.14000 | 2.37010 | 2.37700 | 1.66640 | 1.65750 | .39350 | .29990 | .32980 |
| 2.250 | 22.497 | 1.04720 | 2058.99999 | 178.14000 | 2.32450 | 2.33250 | 1.63550 | 1.65940 | .38110 | .28350 | .31240 |
| 2.250 | 24.553 | 1.05630 | 2058.99999 | 178.14000 | 2.27570 | 2.28270 | 1.53510 | 1.64560 | .37590 | .27140 | .30420 |
| 2.250 | 25.573 | 1.05990 | 2058.99999 | 178.20000 | 2.24930 | 2.25980 | 1.50060 | 1.64900 | .37440 | .27190 | .29890 |
| | GRADIENT | -.00032 | -.00002 | -.00000 | -.00353 | -.00503 | .00847 | .00719 | -.00327 | -.00577 | .00042 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 GAN61 ORBITER + RAKES

(AETRO6) (0E AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVOM = .000
 ANULRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YQ
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
 SCALE = .0300

| MACH | ALPHA | BETA | PT | P | PSI/AP | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .111 | 2.10290 | 1489.50000 | 87.35800 | 2.89420 | 3.05030 | 1.57420 | 1.81350 | 4.1840 | .39270 | .36180 |
| 2.499 | 2.167 | 2.08090 | 1490.20000 | 87.40000 | 2.88840 | 3.04260 | 1.57880 | 1.83020 | 4.1110 | .39590 | .35030 |
| 2.499 | 4.172 | 2.06390 | 1490.20000 | 87.40000 | 2.88640 | 3.04450 | 1.59300 | 1.83420 | 3.9890 | .36240 | .33810 |
| 2.499 | 6.217 | 2.07310 | 1490.20000 | 87.40000 | 2.86510 | 3.01320 | 1.59090 | 1.84090 | 3.9380 | .34100 | .34310 |
| 2.499 | 8.250 | 2.06700 | 1490.20000 | 87.40000 | 2.85670 | 2.99650 | 1.61470 | 1.86590 | 3.5840 | .35840 | .35840 |
| 2.499 | 10.294 | 2.05310 | 1490.20000 | 87.40000 | 2.84460 | 2.98030 | 1.62280 | 1.87810 | 3.6620 | .33620 | .34220 |
| 2.499 | 12.348 | 2.05000 | 1490.20000 | 87.40000 | 2.81230 | 2.95840 | 1.61930 | 1.87700 | 3.5730 | .30860 | .31870 |
| 2.499 | 14.388 | 2.05780 | 1490.20000 | 87.40000 | 2.78340 | 2.92120 | 1.60990 | 1.87540 | 3.4920 | .29230 | .32290 |
| 2.499 | 16.425 | 2.05740 | 1490.20000 | 87.40000 | 2.75190 | 2.97360 | 1.68580 | 1.87150 | 3.3190 | .27920 | .29540 |
| 2.499 | 18.457 | 2.05970 | 1490.20000 | 87.40000 | 2.71940 | 2.83300 | 1.59570 | 1.87150 | 3.2590 | .26300 | .27920 |
| 2.499 | 20.512 | 2.06256 | 1490.20000 | 87.40000 | 2.65730 | 2.72300 | 1.56970 | 1.87880 | 2.6119 | .26119 | .28150 |
| 2.499 | 22.567 | 2.05640 | 1490.20000 | 87.40000 | 2.59200 | 2.74210 | 1.54160 | 1.88630 | 3.1270 | .24990 | .24990 |
| 2.499 | 24.602 | 2.07170 | 1490.20000 | 87.40000 | 2.53640 | 2.69170 | 1.50770 | 1.88510 | 3.2070 | .25180 | .26830 |
| 2.499 | 26.638 | 2.07530 | 1490.20000 | 87.40000 | 2.48180 | 2.65020 | 1.48940 | 1.86890 | 3.3470 | .24180 | .24180 |
| 2.499 | GRADIENT | -.00542 | .17310 | .01039 | -.00192 | -.00142 | .00462 | .00511 | -.00480 | -.00725 | -.09579 |

| MACH | ALPHA | BETA | PT | P | PSI/AP | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .079 | 2.25050 | 2018.50000 | 51.79000 | 3.60680 | 3.93200 | 1.73780 | 2.14170 | 3.5490 | .30350 | .27270 |
| 3.040 | 2.139 | 2.22000 | 2019.30800 | 51.80800 | 3.59980 | 3.93480 | 1.75120 | 2.15450 | 3.6040 | .32290 | .29210 |
| 3.040 | 4.158 | 2.21070 | 2018.50000 | 51.79000 | 3.60030 | 3.91830 | 1.76410 | 2.15390 | 3.3140 | .28690 | .26640 |
| 3.040 | 6.168 | 2.20230 | 2018.50000 | 51.79000 | 3.60120 | 3.89860 | 1.78260 | 2.17910 | 3.4690 | .30250 | .27850 |
| 3.040 | 8.196 | 2.19520 | 2018.50000 | 51.79000 | 3.59780 | 3.87810 | 1.81680 | 2.20650 | 3.5030 | .30250 | .28190 |
| 3.040 | 10.249 | 2.18960 | 2015.70000 | 51.71700 | 3.56590 | 3.82960 | 1.80480 | 2.19540 | 3.0420 | .23910 | .23910 |
| 3.040 | 12.297 | 2.18810 | 2017.10000 | 51.79300 | 3.51290 | 3.80380 | 1.79810 | 2.19810 | 2.8870 | .22030 | .22370 |
| 3.040 | 14.296 | 2.18950 | 2016.39999 | 51.73500 | 3.47640 | 3.78400 | 1.80228 | 2.21540 | 2.7510 | .20660 | .21010 |
| 3.040 | 16.334 | 2.18650 | 2018.50000 | 51.79000 | 3.45120 | 3.72780 | 1.82590 | 2.23910 | 2.9620 | .23130 | .22730 |
| 3.040 | 18.412 | 2.18530 | 2017.10000 | 51.75300 | 3.37940 | 3.64980 | 1.79810 | 2.22940 | 2.7840 | .20660 | .21000 |
| 3.040 | 20.442 | 2.18790 | 2017.80000 | 51.77200 | 3.32140 | 3.59850 | 1.78780 | 2.23620 | 2.9520 | .23010 | .24720 |
| 3.040 | 22.497 | 2.19390 | 2017.80000 | 51.77200 | 3.28790 | 3.51510 | 1.74620 | 2.20810 | 2.7150 | .19620 | .19868 |
| 3.040 | 24.596 | 2.20000 | 2017.80000 | 51.77200 | 3.16630 | 3.45740 | 1.73150 | 2.22120 | 2.8040 | .20770 | .20770 |
| 3.040 | 25.966 | 2.20320 | 2017.80000 | 51.77200 | 3.14060 | 3.43780 | 1.71240 | 2.22490 | 2.8340 | .21930 | .21930 |
| 3.040 | GRADIENT | -.00495 | .00133 | .00063 | -.00160 | -.00334 | .00645 | .00300 | -.00573 | -.00402 | -.00151 |

ARC 11-97-87-094 0A161 ORBITER + RAMES

(AETRO6) (02 AUG 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.6000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 2.000 ELEVOM = .000
AFLRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|---------|------------|----------|---------|---------|---------|---------|---------|--------|---------|
| 3.499 | 1.179 | 2.25330 | 2668.20001 | 35.05800 | 4.37080 | 4.77000 | 1.95496 | 2.41460 | .35780 | .26710 | .26690 |
| 3.499 | 1.866 | 2.24100 | 2669.20001 | 35.08800 | 4.35430 | 4.77410 | 1.96800 | 2.41630 | 3.3670 | .26110 | .26570 |
| 3.499 | 3.886 | 2.23470 | 2668.50000 | 35.04900 | 4.37520 | 4.74480 | 1.99640 | 2.44000 | .34820 | .28760 | .26230 |
| 3.499 | 5.824 | 2.22000 | 2669.20001 | 35.05800 | 4.34390 | 4.70280 | 1.97790 | 2.42280 | .30960 | .25400 | .22360 |
| 3.499 | 7.923 | 2.21990 | 2669.20001 | 35.05800 | 4.34730 | 4.70130 | 2.03120 | 2.47620 | .32710 | .26640 | .24610 |
| 3.499 | 9.343 | 2.21410 | 2667.79999 | 35.03900 | 4.33920 | 4.65240 | 2.05640 | 2.53560 | .32780 | .25780 | .25280 |
| 3.499 | 11.922 | 2.20910 | 2668.89999 | 35.06700 | 4.24060 | 4.58370 | 2.01050 | 2.47560 | .25630 | .19350 | .19060 |
| 3.499 | 14.015 | 2.20560 | 2668.50000 | 35.04900 | 4.20660 | 4.53330 | 2.03350 | 2.49850 | .27470 | .19690 | .19890 |
| 3.499 | 16.030 | 2.20860 | 2668.20001 | 35.05900 | 4.15660 | 4.48010 | 2.04540 | 2.52520 | .27740 | .20570 | .19660 |
| 3.499 | 18.065 | 2.20830 | 2668.50000 | 35.04900 | 4.08540 | 4.40910 | 2.03680 | 2.53760 | .27660 | .20470 | .20070 |
| 3.499 | 20.103 | 2.20950 | 2669.89999 | 35.06700 | 3.99570 | 4.31400 | 1.99990 | 2.51530 | .26680 | .20610 | .19100 |
| 3.499 | 22.128 | 2.21520 | 2667.79999 | 35.03900 | 3.94340 | 4.27180 | 2.00890 | 2.54890 | .25950 | .21970 | .20950 |
| 3.499 | 24.173 | 2.22330 | 2668.89999 | 35.06700 | 3.83680 | 4.17420 | 1.96170 | 2.52240 | .25960 | .18870 | .18870 |
| 3.499 | 25.184 | 2.22390 | 2667.79999 | 35.03900 | 3.76536 | 4.12530 | 1.93570 | 2.51220 | .25690 | .17608 | .17608 |
| | | | | | | | .00107 | | -.00638 | .00012 | -.00115 |
| | | | | | | | | | | | |

GRADIENT

(AETR07) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-08*)
ARC 11-97-87-03* 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AIRLON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 996.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 23/ 0 RNAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|---------|--------|--------|
| .597 | .108 | 5.34530 | 2630.29999 | 2067.50000 | 1.00970 | 1.06990 | .97080 | .98390 | .95100 | .94360 | .95180 |
| .597 | 2.153 | 5.37120 | 2631.00000 | 2068.20001 | 1.01140 | 1.07210 | .97450 | .98810 | .94970 | .94390 | .95260 |
| .597 | 4.224 | 5.37910 | 2631.09000 | 2067.50000 | 1.01208 | 1.07340 | .97780 | 1.00360 | .94970 | .94480 | .95370 |
| .598 | 6.310 | 5.38020 | 2631.79999 | 2066.10001 | 1.01310 | 1.07410 | .97960 | 1.00790 | .94840 | .94380 | .95300 |
| .597 | 8.400 | 5.38740 | 2631.79999 | 2068.89999 | 1.00960 | 1.07150 | .97700 | 1.00640 | .94860 | .94480 | .95380 |
| .597 | 10.525 | 5.37820 | 2631.79999 | 2067.50000 | 1.00680 | 1.06820 | .97460 | 1.00610 | .94800 | .94570 | .95380 |
| .596 | 12.645 | 5.37300 | 2631.79999 | 2070.29999 | 1.00290 | 1.06950 | .97460 | 1.00810 | .94740 | .94270 | .95180 |
| .596 | 14.799 | 5.36710 | 2632.50000 | 2070.29999 | .99220 | 1.05320 | .97460 | 1.00940 | .94270 | .93760 | .94960 |
| .596 | 16.865 | 5.36910 | 2632.50000 | 2069.60001 | .98160 | 1.04270 | .96770 | 1.00380 | .93790 | .93150 | .94760 |
| .598 | 18.976 | 5.37010 | 2632.50000 | 2066.10001 | .97320 | 1.03420 | .96740 | 1.00550 | .93650 | .92910 | .94020 |
| .597 | 21.080 | 5.38090 | 2631.79999 | 2068.20001 | .99890 | 1.02780 | .96000 | 1.00100 | .93140 | .92140 | .93340 |
| .597 | 23.164 | 5.38600 | 2632.50000 | 2068.89999 | .94720 | 1.02910 | .95250 | .99570 | .92760 | .91860 | .92710 |
| .597 | 25.228 | 5.40940 | 2632.50000 | 2068.89999 | .99440 | .99440 | .94580 | .99100 | .92490 | .91090 | .91660 |
| .597 | GRADIENT | .00820 | .16873 | -.00071 | .00895 | .00885 | .00168 | .00236 | -.00032 | .00027 | .00022 |

RUN NO. 20/ 0 RNAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .899 | .080 | 5.38660 | 2112.60001 | 1250.30000 | 1.07070 | 1.20930 | 1.02610 | 1.04080 | .87280 | .85890 | .87450 |
| .900 | 2.171 | 5.39620 | 2115.39999 | 1250.89999 | 1.07450 | 1.21520 | 1.01980 | 1.04760 | .87540 | .86390 | .88220 |
| .901 | 4.284 | 5.40850 | 2115.39999 | 1249.50000 | 1.07760 | 1.21540 | 1.02470 | 1.05360 | .87570 | .86840 | .87920 |
| .907 | 6.401 | 5.41170 | 2112.60001 | 1248.80000 | 1.07950 | 1.21460 | 1.02700 | 1.07070 | .87670 | .87330 | .88240 |
| .894 | 8.518 | 5.40640 | 2116.20001 | 1258.89999 | 1.07130 | 1.20390 | 1.02740 | 1.07010 | .87000 | .86860 | .87860 |
| .902 | 10.653 | 5.40310 | 2115.39999 | 1248.10001 | 1.07260 | 1.20800 | 1.04180 | 1.07790 | .87430 | .87020 | .88580 |
| .900 | 12.786 | 5.40140 | 2114.00000 | 1249.50000 | 1.05950 | 1.19060 | 1.04320 | 1.08000 | .86770 | .86030 | .86510 |
| .898 | 14.917 | 5.42460 | 2114.70001 | 1258.10001 | 1.04000 | 1.17520 | 1.04420 | 1.08620 | .85430 | .83950 | .85760 |
| .899 | 17.074 | 5.43600 | 2116.89999 | 1252.39999 | 1.02130 | 1.15700 | 1.05220 | 1.06680 | .84090 | .83320 | .85430 |
| .895 | 19.222 | 5.45000 | 2114.70001 | 1255.30000 | .99770 | 1.13490 | 1.03460 | 1.03200 | .82350 | .81690 | .83310 |
| .893 | 21.345 | 5.45420 | 2114.00000 | 1259.60001 | .97180 | 1.12500 | 1.03890 | 1.08880 | .80760 | .79340 | .81710 |
| .902 | 23.441 | 5.45100 | 2117.60001 | 1248.80000 | .95310 | 1.09620 | 1.04470 | 1.10230 | .78760 | .77620 | .79460 |
| .893 | 25.453 | 5.45220 | 2114.70001 | 1264.70000 | .90900 | 1.05630 | 1.02710 | 1.08660 | .73760 | .73250 | .72620 |
| .893 | GRADIENT | .03945 | .86477 | -.19107 | .00164 | .00145 | -.00033 | -.00304 | .00069 | .00226 | .00111 |

(AETROT) (02 AUG 76)

TABLATED DATA - OAI61 (ARC 11-97-87-004)
ARC 11-97-87-094 OAI61 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALLRON = -.000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.8600 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | RUN NO. | 14/0 | RNVL = 4.26 | GRADIENT INTERVAL = -5.00/ 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|---------|---------|-------|-------------|---------------------------------|---------|---------|---------|---------|---------|--------|-------|
| 1.199 | .084 | 5.38440 | 2010 | 80000 | 830.409000 | 1.31410 | 1.53450 | 1.38760 | 1.41330 | .68550 | .65250 | .66420 | |
| 1.201 | 2.182 | 5.42390 | 2010 | 80000 | 827.62000 | 1.31410 | 1.52980 | 1.35030 | 1.40330 | .68550 | .65250 | .66580 | |
| 1.199 | 4.334 | 5.41990 | 2010 | 10000 | 830.39000 | 1.31460 | 1.52540 | 1.37100 | 1.39480 | .68280 | .65100 | .66760 | |
| 1.195 | 6.446 | 5.41170 | 2010 | 80000 | 833.18000 | 1.30770 | 1.50910 | 1.40390 | 1.40390 | .68280 | .64240 | .66560 | |
| 1.197 | 8.606 | 5.41240 | 2010 | 10000 | 832.48000 | 1.30020 | 1.50230 | 1.35030 | 1.41530 | .67310 | .63080 | .66540 | |
| 1.191 | 10.780 | 5.39100 | 2010 | 50000 | 832.49000 | 1.29120 | 1.49050 | 1.34900 | 1.40410 | .68570 | .62630 | .63740 | |
| 1.195 | 12.927 | 5.39680 | 2010 | 80000 | 833.18000 | 1.27720 | 1.47650 | 1.34000 | 1.40870 | .66720 | .61750 | .62750 | |
| 1.197 | 15.090 | 5.41750 | 2009 | 39999 | 833.19000 | 1.25430 | 1.44770 | 1.33150 | 1.40200 | .66160 | .59850 | .62030 | |
| 1.193 | 17.249 | 5.45190 | 2009 | 39999 | 836.66900 | 1.22490 | 1.42170 | 1.27710 | 1.38980 | .64820 | .57750 | .59550 | |
| 1.191 | 19.420 | 5.46330 | 2010 | 80000 | 839.45000 | 1.19350 | 1.39790 | 1.26240 | 1.41470 | .63800 | .56990 | .59270 | |
| 1.198 | 21.561 | 5.46530 | 2010 | 10000 | 836.66000 | 1.16900 | 1.37370 | 1.25880 | 1.42970 | .64480 | .54690 | .59390 | |
| 1.198 | 23.670 | 5.47900 | 2010 | 10000 | 837.39000 | 1.13480 | 1.34770 | 1.25950 | 1.43950 | .63300 | .54690 | .59390 | |
| 1.186 | 25.761 | 5.49450 | 2011 | 50000 | 844.34000 | 1.10310 | 1.31150 | 1.19390 | 1.43300 | .61750 | .52570 | .57250 | |
| | | | | | .00020 | .00012 | -.00216 | -.00392 | -.00438 | -.00064 | -.00036 | .00061 | |

| MACH | ALPHA | BETA | RUN NO. | 11/0 | RNVL = 4.26 | GRADIENT INTERVAL = -5.00/ 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|---------|---------|-------|-------------|---------------------------------|---------|---------|---------|--------|--------|--------|-------|
| 1.406 | .065 | 5.39060 | 2047 | 50000 | 641.17000 | 1.50420 | 1.75810 | 1.47140 | 1.72550 | .62740 | .56910 | .58760 | |
| 1.408 | 2.145 | 5.46540 | 2049 | 00000 | 641.68000 | 1.49390 | 1.73110 | 1.45510 | 1.66100 | .62680 | .57220 | .60780 | |
| 1.399 | 4.262 | 5.43010 | 2047 | 50000 | 644.12000 | 1.46780 | 1.72170 | 1.46530 | 1.65480 | .62940 | .57680 | .61320 | |
| 1.398 | 6.395 | 5.41630 | 2047 | 50000 | 645.59000 | 1.47700 | 1.70320 | 1.49830 | 1.67450 | .62740 | .56960 | .60650 | |
| 1.395 | 8.544 | 5.42770 | 2047 | 50000 | 647.60000 | 1.46290 | 1.68540 | 1.50050 | 1.67780 | .62320 | .56190 | .58190 | |
| 1.395 | 10.740 | 5.40550 | 2048 | 29999 | 647.05000 | 1.44890 | 1.66810 | 1.46980 | 1.66480 | .62120 | .56550 | .56450 | |
| 1.398 | 12.890 | 5.39960 | 2048 | 29999 | 644.11000 | 1.43030 | 1.64870 | 1.42130 | 1.68620 | .61640 | .55920 | .54390 | |
| 1.393 | 15.000 | 5.42630 | 2048 | 29999 | 644.11000 | 1.41450 | 1.63300 | 1.44640 | 1.69030 | .61590 | .51170 | .52420 | |
| 1.393 | 17.182 | 5.43520 | 2048 | 29999 | 650.00000 | 1.37210 | 1.60060 | 1.35140 | 1.66170 | .60950 | .49830 | .5210 | |
| 1.390 | 19.335 | 5.46330 | 2048 | 29999 | 652.95000 | 1.34580 | 1.57280 | 1.32100 | 1.65350 | .60840 | .49829 | .53070 | |
| 1.386 | 21.481 | 5.48180 | 2049 | 70000 | 647.76000 | 1.32090 | 1.55000 | 1.29890 | 1.66480 | .60650 | .49829 | .47970 | |
| 1.386 | 23.690 | 5.48690 | 2048 | 29999 | 654.43000 | 1.27890 | 1.52420 | 1.26640 | 1.66690 | .60080 | .49500 | .47970 | |
| 1.387 | 25.765 | 5.48490 | 2049 | 70000 | 655.88000 | 1.24690 | 1.49170 | 1.25710 | 1.69690 | .57170 | .49500 | .47970 | |
| | | | | | .00213 | -.00394 | -.00394 | .00334 | -.01681 | .00048 | .00164 | .00609 | |

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 301/ 0 RVAL = 3.03 GRADIENT INTERVAL = -9.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|-----------|-----------|---------|---------|---------|---------|--------|---------|--------|
| 1.556 | .026 | 4.56670 | 1549.6000 | 389.05000 | 1.64640 | 1.56180 | 1.18840 | 1.54690 | .58780 | .56460 | .55450 |
| 1.556 | 2.042 | 4.56210 | 1551.0000 | 389.40000 | 1.64700 | 1.95790 | 1.19680 | 1.53720 | .58820 | .55080 | .55550 |
| 1.556 | 4.115 | 4.56310 | 1551.8000 | 389.58000 | 1.64230 | 1.94790 | 1.31048 | 1.54300 | .58980 | .54860 | .57220 |
| 1.556 | 6.194 | 4.55990 | 1552.5000 | 399.76000 | 1.63990 | 1.93000 | 1.30680 | 1.55690 | .58870 | .54820 | .58140 |
| 1.556 | 8.262 | 4.56200 | 1556.7000 | 399.82000 | 1.63010 | 1.84450 | 1.24480 | 1.56900 | .58370 | .53240 | .56870 |
| 1.556 | 10.331 | 4.56100 | 1556.2000 | 391.71000 | 1.60970 | 1.89950 | 1.20660 | 1.56720 | .59198 | .57790 | .55970 |
| 1.556 | 12.379 | 4.56660 | 1557.3999 | 391.00000 | 1.59090 | 1.87810 | 1.33990 | 1.56220 | .57660 | .56650 | .53800 |
| 1.556 | 14.462 | 4.57190 | 1558.0000 | 390.85000 | 1.56700 | 1.86080 | 1.48100 | 1.56840 | .56310 | .56310 | .52090 |
| 1.556 | 16.508 | 4.57840 | 1558.7000 | 390.82000 | 1.53360 | 1.84020 | 1.40510 | 1.55050 | .56340 | .56290 | .51480 |
| 1.556 | 18.707 | 4.58310 | 1557.3999 | 391.00000 | 1.50380 | 1.82060 | 1.39750 | 1.53360 | .59590 | .59770 | .48630 |
| 1.556 | 20.736 | 4.59160 | 1558.0000 | 391.18000 | 1.47900 | 1.79160 | 1.56160 | 1.53370 | .54490 | .48050 | .46458 |
| 1.556 | 24.695 | 4.59820 | 1558.5000 | 391.53000 | 1.41840 | 1.74100 | 1.25800 | 1.49540 | .50840 | .44240 | .45570 |
| 1.556 | 25.912 | 4.60540 | 1556.0000 | 390.65000 | 1.40110 | 1.72770 | 1.23780 | 1.50240 | .49860 | .43470 | .44709 |
| | GRADIENT | -.03087 | .53732 | .12942 | -.00101 | -.00341 | .02895 | -.00094 | .00041 | -.30390 | .00432 |

RUN NO. 310/ 0 RVAL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|-----------|-----------|---------|---------|---------|---------|--------|----------|--------|
| 1.750 | -.077 | 4.75100 | 1655.7000 | 310.99000 | 1.83560 | 2.23560 | 1.20310 | 1.61850 | .54880 | .53120 | .49240 |
| 1.750 | 1.918 | 4.74770 | 1655.7000 | 310.99000 | 1.84129 | 2.23280 | 1.21330 | 1.63100 | .55010 | .51470 | .49640 |
| 1.750 | 3.992 | 4.74680 | 1655.7000 | 310.99000 | 1.82520 | 2.22460 | 1.22630 | 1.62860 | .55360 | .49940 | .49940 |
| 1.750 | 6.096 | 4.74840 | 1659.3999 | 311.12000 | 1.81050 | 2.20880 | 1.23610 | 1.63670 | .55080 | .48690 | .50180 |
| 1.750 | 8.127 | 4.75090 | 1655.7000 | 310.99000 | 1.80680 | 2.19470 | 1.22920 | 1.64690 | .56630 | .49700 | .52550 |
| 1.750 | 10.190 | 4.74920 | 1656.7000 | 310.99000 | 1.78560 | 2.17310 | 1.22750 | 1.65600 | .55400 | .50330 | .50780 |
| 1.750 | 12.232 | 4.75260 | 1659.0000 | 310.85000 | 1.76260 | 2.15610 | 1.23940 | 1.66020 | .54040 | .47020 | .48950 |
| 1.750 | 14.317 | 4.75700 | 1656.3999 | 311.12000 | 1.72950 | 2.13040 | 1.41750 | 1.64800 | .52740 | .53880 | .46750 |
| 1.750 | 16.459 | 4.76200 | 1655.7000 | 310.93000 | 1.69730 | 2.10130 | 1.39960 | 1.64990 | .51830 | .49280 | .45780 |
| 1.750 | 18.547 | 4.76680 | 1655.0000 | 310.85000 | 1.66520 | 2.07630 | 1.37750 | 1.63510 | .51690 | .46870 | .44470 |
| 1.750 | 20.574 | 4.76910 | 1655.0000 | 310.85000 | 1.63790 | 2.04500 | 1.29150 | 1.61350 | .50980 | .42870 | .43440 |
| 1.750 | 24.717 | 4.76640 | 1658.3999 | 311.12000 | 1.56640 | 1.98250 | 1.20440 | 1.60930 | .47450 | .40210 | .47120 |
| 1.750 | 25.748 | 4.78120 | 1656.7000 | 310.99000 | 1.52980 | 1.97200 | 1.18280 | 1.60770 | .46650 | .38740 | .39770 |
| | GRADIENT | -.00063 | -.00001 | .09000 | -.00259 | -.00271 | .09571 | .00246 | .00116 | -.000781 | .00172 |

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AIRLON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2592.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.8800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.996 | -.017 | 4.22740 | 1834.00000 | 235.75000 | 2.03650 | 2.52150 | 1.24950 | 1.69340 | 51580 | 45790 | 43830 |
| 1.996 | 1.974 | 4.22430 | 1831.10001 | 235.35000 | 2.05150 | 2.51920 | 1.25980 | 1.70040 | 50980 | 45280 | 43820 |
| 1.996 | 4.099 | 4.22380 | 1831.10001 | 235.35000 | 2.03760 | 2.50160 | 1.26270 | 1.70880 | 50510 | 43120 | 42220 |
| 1.996 | 6.098 | 4.22310 | 1831.10001 | 235.35000 | 2.03270 | 2.48410 | 1.27240 | 1.71720 | 50080 | 41480 | 42950 |
| 1.996 | 8.157 | 4.22230 | 1833.20000 | 235.65000 | 2.01350 | 2.45980 | 1.2790 | 1.73080 | 50000 | 41190 | 43370 |
| 1.996 | 10.215 | 4.22160 | 1834.70000 | 235.85000 | 1.99240 | 2.44260 | 1.2740 | 1.73470 | 49590 | 40730 | 42540 |
| 1.996 | 12.255 | 4.22150 | 1834.70000 | 235.84000 | 1.98750 | 2.42410 | 1.27330 | 1.73550 | 48900 | 38800 | 40480 |
| 1.996 | 14.336 | 4.22070 | 1839.60001 | 236.48000 | 1.98200 | 2.40270 | 1.34610 | 1.73380 | 47630 | 36940 | 41650 |
| 1.996 | 16.475 | 4.22030 | 1845.30000 | 237.21000 | 1.92820 | 2.36470 | 1.40850 | 1.73000 | 46500 | 36230 | 39470 |
| 1.996 | 18.555 | 4.23350 | 1843.89999 | 237.03000 | 1.92860 | 2.34340 | 1.49370 | 1.72160 | 45520 | 37280 | 38410 |
| 1.996 | 20.577 | 4.23730 | 1843.70000 | 237.03000 | 1.93340 | 2.31440 | 1.53340 | 1.72420 | 44950 | 34830 | 36330 |
| 1.996 | 22.654 | 4.24270 | 1843.89999 | 237.03000 | 1.88190 | 2.27880 | 1.57780 | 1.73210 | 43990 | 34390 | 37410 |
| 1.996 | 24.713 | 4.24870 | 1843.10001 | 236.94000 | 1.76250 | 2.23020 | 1.62000 | 1.78820 | 42160 | 36650 | 33780 |
| 1.996 | 25.735 | 4.25180 | 1842.30000 | 236.84000 | 1.73250 | 2.20670 | 1.68070 | 1.73180 | 41810 | 32820 | 33790 |
| | GRADIENT | | | | .00081 | -.00493 | .00325 | -.00380 | -.00264 | -.00661 | -.00397 |

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 311/ 0

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|---------|---------|
| 2.250 | -.075 | 4.07550 | 2058.60001 | 178.20000 | 2.32450 | 2.92760 | 1.33930 | 1.84810 | 40000 | 40130 | 39240 |
| 2.250 | 1.904 | 4.07410 | 2058.89999 | 178.14000 | 2.31380 | 2.91940 | 1.34330 | 1.85570 | 47610 | 39830 | 37440 |
| 2.250 | 3.954 | 4.05820 | 2058.60001 | 178.20000 | 2.30870 | 2.90460 | 1.35530 | 1.86610 | 47240 | 38780 | 35880 |
| 2.250 | 6.005 | 4.07090 | 2058.60001 | 178.20000 | 2.29760 | 2.89220 | 1.37360 | 1.88100 | 47610 | 37050 | 37760 |
| 2.250 | 8.059 | 4.07180 | 2058.89999 | 178.14000 | 2.27750 | 2.85320 | 1.38120 | 1.89850 | 46670 | 35520 | 35820 |
| 2.250 | 10.107 | 4.06760 | 2058.60001 | 178.20000 | 2.26380 | 2.81940 | 1.39180 | 1.90100 | 44800 | 33560 | 34450 |
| 2.250 | 12.139 | 4.06770 | 2058.89999 | 178.14000 | 2.25750 | 2.79760 | 1.39530 | 1.90960 | 42630 | 31480 | 33370 |
| 2.250 | 14.212 | 4.07440 | 2058.89999 | 178.14000 | 2.25390 | 2.77270 | 1.38970 | 1.91590 | 41660 | 30320 | 32110 |
| 2.250 | 16.338 | 4.07780 | 2058.60001 | 178.20000 | 2.22590 | 2.74020 | 1.44480 | 1.91800 | 40530 | 29970 | 31670 |
| 2.250 | 18.413 | 4.08130 | 2058.89999 | 178.14000 | 2.18730 | 2.70760 | 1.50850 | 1.91560 | 40800 | 30150 | 31340 |
| 2.250 | 20.426 | 4.08350 | 2058.60001 | 178.20000 | 2.15890 | 2.66740 | 1.54310 | 1.91590 | 39610 | 28650 | 30650 |
| 2.250 | 22.494 | 4.08840 | 2058.89999 | 178.14000 | 2.10120 | 2.64070 | 1.53160 | 1.91850 | 38910 | 28430 | 29530 |
| 2.250 | 24.545 | 4.09480 | 2058.89999 | 178.14000 | 2.05860 | 2.58440 | 1.52800 | 1.90650 | 37750 | 26900 | 27590 |
| 2.250 | 25.565 | 4.09700 | 2058.89999 | 178.14000 | 2.03870 | 2.55360 | 1.52020 | 1.90260 | 36150 | 26500 | 26570 |
| | GRADIENT | | | | -.00394 | -.00572 | .00546 | -.00447 | .11644 | -.00336 | -.00584 |

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 320/ 0

(AETR07) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

T-BULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 50. FT. XRRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YRRP = .0000 IN. YO
 BREF = 936.6800 IN. ZRRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 4457 0 RNL = 2.01 GRADIENT INTERVAL = -5.00 5.00

| MACH | ALPHA | BETA | PF | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .099 | 5.18510 | 1490.20000 | 87.40000 | 2.54340 | 3.44170 | 1.36310 | 2.09320 | .42830 | .37960 | .37150 |
| 2.499 | 2.128 | 5.15910 | 1490.20000 | 87.40000 | 2.54780 | 3.43140 | 1.36670 | 2.10480 | .42420 | .37250 | .35630 |
| 2.499 | 4.178 | 5.13610 | 1490.20000 | 87.40000 | 2.53750 | 3.42400 | 1.39580 | 2.12120 | .41520 | .36560 | .35440 |
| 2.499 | 6.242 | 5.11880 | 1490.20000 | 87.40000 | 2.53150 | 3.42000 | 1.39810 | 2.12450 | .39990 | .35760 | .34280 |
| 2.499 | 8.248 | 5.10470 | 1490.20000 | 87.40000 | 2.50860 | 3.37840 | 1.40830 | 2.15090 | .39990 | .32690 | .32280 |
| 2.499 | 10.234 | 5.09510 | 1490.20000 | 87.40000 | 2.49870 | 3.35060 | 1.4180 | 2.16820 | .37960 | .33110 | .30670 |
| 2.499 | 12.358 | 5.08826 | 1490.20000 | 87.40000 | 2.47400 | 3.34010 | 1.40096 | 2.16170 | .34820 | .27920 | .29730 |
| 2.499 | 14.395 | 5.08540 | 1490.20000 | 87.40000 | 2.46160 | 3.30650 | 1.39580 | 2.18000 | .29150 | .28150 | .29350 |
| 2.499 | 16.421 | 5.08200 | 1490.20000 | 87.40000 | 2.41990 | 3.28620 | 1.38440 | 2.19050 | .28050 | .28050 | .29170 |
| 2.499 | 18.454 | 5.08110 | 1490.20000 | 87.40000 | 2.37400 | 3.26120 | 1.36270 | 2.19970 | .26820 | .26820 | .29130 |
| 2.499 | 20.513 | 5.07990 | 1490.20000 | 87.40000 | 2.32090 | 3.15880 | 1.33480 | 2.20470 | .25390 | .25390 | .24950 |
| 2.499 | 22.557 | 5.07840 | 1490.20000 | 87.40000 | 2.26370 | 3.08250 | 1.28750 | 2.19710 | .24270 | .24270 | .24270 |
| 2.499 | 24.596 | 5.07650 | 1490.20000 | 87.40000 | 2.20870 | 3.04100 | 1.26370 | 2.20870 | .23370 | .23370 | .24350 |
| 2.499 | 26.631 | 5.07440 | 1490.20000 | 87.40000 | 2.18400 | 3.00660 | 1.24190 | 2.20630 | .23110 | .23110 | .25310 |
| 2.499 | GRADIENT | -.01225 | -.00000 | .00000 | -.00317 | -.00434 | .00661 | .00667 | -.00321 | -.00319 | -.00419 |

RUN NO. 4357 0 RNL = 1.96 GRADIENT INTERVAL = -5.00 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .099 | 5.34900 | 2019.30000 | 91.80880 | 3.08470 | 4.48020 | 1.45430 | 2.59740 | .38420 | .30980 | .29870 |
| 3.040 | 2.155 | 5.32416 | 2017.10000 | 91.75300 | 3.06990 | 4.46370 | 1.46360 | 2.51570 | .38220 | .29220 | .27520 |
| 3.040 | 4.170 | 5.30100 | 2017.60000 | 91.72200 | 3.06930 | 4.45050 | 1.48230 | 2.53930 | .36690 | .28690 | .26500 |
| 3.040 | 6.207 | 5.28370 | 2018.50000 | 91.79900 | 3.05320 | 4.42090 | 1.49260 | 2.55400 | .35790 | .28100 | .25560 |
| 3.040 | 8.224 | 5.26870 | 2017.80000 | 91.77200 | 3.03630 | 4.40090 | 1.52150 | 2.58490 | .3510 | .2710 | .25000 |
| 3.040 | 10.250 | 5.25980 | 2019.50000 | 91.79900 | 3.02570 | 4.37180 | 1.50190 | 2.59860 | .32670 | .25780 | .23130 |
| 3.040 | 12.321 | 5.25150 | 2017.80000 | 91.77200 | 2.98800 | 4.31770 | 1.48660 | 2.60500 | .29520 | .24290 | .21930 |
| 3.040 | 14.331 | 5.24640 | 2018.50000 | 91.79000 | 2.95760 | 4.26140 | 1.47320 | 2.60850 | .28740 | .2340 | .21240 |
| 3.040 | 16.357 | 5.24040 | 2018.50000 | 91.72200 | 2.92100 | 4.21080 | 1.47390 | 2.62340 | .28670 | .2240 | .2040 |
| 3.040 | 18.394 | 5.23500 | 2018.50000 | 91.79000 | 2.85490 | 4.14510 | 1.44490 | 2.63240 | .2740 | .2140 | .19640 |
| 3.040 | 20.430 | 5.22660 | 2018.50000 | 91.79000 | 2.80070 | 4.07130 | 1.40650 | 2.63240 | .26800 | .2040 | .18600 |
| 3.040 | 22.464 | 5.218190 | 2018.50000 | 91.79000 | 2.75660 | 4.00130 | 1.40250 | 2.64270 | .26770 | .19200 | .17530 |
| 3.040 | 24.501 | 5.20940 | 2017.80000 | 91.77200 | 2.70070 | 3.94710 | 1.38540 | 2.66980 | .26500 | .19000 | .17500 |
| 3.040 | 25.523 | 5.20680 | 2018.50000 | 91.79000 | 2.65950 | 3.89100 | 1.34820 | 2.64700 | .26490 | .17800 | .16250 |
| 3.040 | GRADIENT | -.01178 | -.37081 | -.00690 | .00168 | -.00729 | .00687 | .00774 | -.00745 | -.00491 | -.00629 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RUN NO. 435/ 0 R/V/L = 2.00 GRADIENT INTERVAL = -5.00/ 9.00

| MACH | ALPHA | BETA | FT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|----------|---------|---------|---------|---------|---------|--------|--------|
| 3.499 | -.893 | 5.47560 | 2682.00000 | 35.22500 | 3.69550 | 5.52220 | 1.58130 | 2.93560 | 3.63007 | .26240 | .25730 |
| 3.499 | 1.838 | 5.44800 | 2682.00000 | 35.22500 | 3.69550 | 5.51840 | 1.63058 | 2.97170 | 3.64900 | .29440 | .27930 |
| 3.499 | 3.855 | 5.42960 | 2679.79999 | 35.19700 | 3.68110 | 5.50140 | 1.63450 | 2.98280 | 3.72300 | .28190 | .26670 |
| 3.499 | 5.891 | 5.40310 | 2682.00000 | 35.22500 | 3.66130 | 5.46560 | 1.62080 | 3.00840 | 3.49200 | .26390 | .24370 |
| 3.499 | 7.913 | 5.39990 | 2679.79999 | 35.19700 | 3.65330 | 5.43180 | 1.63600 | 3.00840 | 3.33700 | .23740 | .21220 |
| 3.499 | 9.949 | 5.38160 | 2682.00000 | 35.22500 | 3.60950 | 5.37620 | 1.61870 | 3.00720 | 2.90700 | .18010 | .16510 |
| 3.499 | 11.979 | 5.37640 | 2679.79999 | 35.19700 | 3.59260 | 5.31600 | 1.60780 | 3.00720 | 2.72600 | .17590 | .16190 |
| 3.499 | 14.010 | 5.37510 | 2682.00000 | 35.22500 | 3.51770 | 5.25000 | 1.59410 | 3.03730 | 2.64600 | .15900 | .14500 |
| 3.499 | 16.029 | 5.37460 | 2680.60001 | 35.20600 | 3.46300 | 5.17890 | 1.58960 | 3.04490 | 2.50100 | .15960 | .14560 |
| 3.499 | 18.069 | 5.38210 | 2679.79999 | 35.19700 | 3.46300 | 5.02120 | 1.56960 | 3.09860 | 2.18700 | .16950 | .15450 |
| 3.499 | 20.100 | 5.39070 | 2682.00000 | 35.22500 | 3.29160 | 4.83320 | 1.53420 | 3.08620 | 2.68200 | .16960 | .15460 |
| 3.499 | 22.131 | 5.40290 | 2680.60001 | 35.20600 | 3.23090 | 4.85690 | 1.52930 | 3.11510 | 2.91000 | .20540 | .18510 |
| 3.499 | 24.167 | 5.42330 | 2679.79999 | 35.19700 | 3.23090 | 4.78670 | 1.52930 | 3.11510 | 2.91000 | .17690 | .16660 |
| 3.499 | 25.177 | 5.43320 | 2680.60001 | 35.20600 | 3.16390 | 4.78670 | 1.47640 | 3.08620 | 2.91000 | .13660 | .12650 |
| 3.499 | GRADIENT | -.01139 | -.54264 | -.00654 | .00634 | -.00538 | .01316 | .01119 | .00231 | .00730 | .00014 |

(AETRO7) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RUN NO. 997/ 0 R/V/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|------------|---------|---------|---------|--------|---------|--------|--------|
| 5.997 | .143 | -4.93990 | 2605.60001 | 2048.29999 | 1.08600 | 1.00220 | .99830 | .96750 | .94950 | .94420 | .93950 |
| 5.997 | 4.203 | -4.94460 | 2606.29999 | 2049.10001 | 1.08890 | 1.00660 | 1.00990 | .96460 | .94870 | .94470 | .93430 |
| 5.997 | 8.358 | -4.92300 | 2605.29999 | 2049.79999 | 1.08850 | 1.00150 | 1.01040 | .97150 | .94900 | .94180 | .93580 |
| 5.997 | 12.478 | -4.91820 | 2607.00000 | 2049.79999 | 1.06390 | .99820 | 1.01050 | .96960 | .94550 | .94730 | .93730 |
| 5.997 | 16.587 | -4.89930 | 2607.00000 | 2049.79999 | 1.07810 | .99230 | 1.01080 | .97100 | .94550 | .94670 | .93530 |
| 5.997 | 20.682 | -4.87690 | 2607.70001 | 2049.79999 | 1.07080 | .98460 | 1.00890 | .96710 | .94360 | .94480 | .93520 |
| 5.997 | 24.793 | -4.88330 | 2607.70001 | 2049.79999 | 1.06130 | .97560 | 1.00890 | .96710 | .94070 | .94440 | .93510 |
| 5.997 | 28.015 | -4.90020 | 2607.70001 | 2050.50000 | 1.05770 | .95110 | 1.00510 | .96190 | .94070 | .94440 | .93350 |
| 5.997 | GRADIENT | -.00416 | .17241 | .19734 | .00071 | .00108 | .00283 | .00175 | -.00080 | .00012 | .00010 |

(AETRO8) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0800 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0380

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 ATRON = .000 BOFLAP = -7.170

RUN NO. 100/ 0 RM/L = 4.22 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .796 | .117 | -4.95780 | 2186.20001 | 1439.80000 | 1.17270 | 1.01810 | .99990 | .94450 | .90270 | .89680 | .94190 |
| .798 | 4.235 | -4.96140 | 2187.60001 | 1438.30000 | 1.17980 | 1.02500 | 1.02570 | .93420 | .90220 | .90220 | .91520 |
| .797 | 8.448 | -4.94380 | 2187.60001 | 1438.80000 | 1.17430 | 1.02030 | 1.03048 | .95000 | .90330 | .90330 | .91650 |
| .798 | 13.577 | -4.93760 | 2229.29999 | 1456.00000 | 1.17290 | 1.01110 | 1.03690 | .94738 | .90180 | .90543 | .91930 |
| .795 | 12.699 | -4.91630 | 2230.00000 | 1458.10001 | 1.16860 | 1.00230 | 1.03660 | .94950 | .89260 | .89730 | .91280 |
| .799 | 14.828 | -4.91790 | 2230.00000 | 1465.00000 | 1.15240 | .98390 | 1.03660 | .95340 | .88710 | .88230 | .90430 |
| .795 | 16.946 | -4.92730 | 2230.00000 | 1468.10001 | 1.13700 | .97660 | 1.03050 | .94360 | .88230 | .87970 | .89440 |
| .795 | 21.232 | -4.94780 | 2230.70001 | 1470.89999 | 1.09970 | .93090 | 1.01220 | .86490 | .86490 | .86490 | .86880 |
| GRADIENT | | -.00027 | .34002 | -.36428 | .00172 | .00168 | .00627 | .00478 | .00073 | .00131 | .00050 |

RUN NO. 110/ 0 RM/L = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .850 | .105 | -4.95770 | 2177.70001 | 1357.30008 | 1.20940 | 1.03050 | 1.00750 | .93290 | .88650 | .89550 | .89000 |
| .851 | 4.248 | -4.95080 | 2177.70001 | 1356.60001 | 1.21360 | 1.03870 | 1.03470 | .95060 | .89100 | .89160 | .90330 |
| .848 | 8.470 | -4.93920 | 2177.70001 | 1360.89999 | 1.20830 | 1.03010 | 1.04490 | .96230 | .88930 | .89330 | .90530 |
| .848 | 10.595 | -4.92980 | 2177.70001 | 1360.89999 | 1.20290 | 1.02660 | 1.04210 | .96110 | .88330 | .88540 | .90220 |
| .847 | 12.714 | -4.91660 | 2177.00000 | 1362.30000 | 1.19450 | 1.01070 | 1.05890 | .95970 | .87560 | .87840 | .89420 |
| .846 | 14.846 | -4.92350 | 2177.70001 | 1360.89999 | 1.18070 | .99910 | 1.05230 | .95170 | .87060 | .87321 | .88430 |
| .849 | 16.973 | -4.92950 | 2177.00000 | 1360.20000 | 1.16650 | .98300 | 1.04720 | .95260 | .86760 | .86760 | .88410 |
| .846 | 21.232 | -4.95170 | 2178.39999 | 1363.70000 | 1.12500 | .93350 | 1.02600 | .83460 | .83460 | .83460 | .84300 |
| GRADIENT | | .03167 | .00000 | -.16901 | .00101 | .00184 | .00667 | .00427 | .00087 | .00128 | .00453 |

RUN NO. 111/ 0 RM/L = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .900 | .105 | -4.95550 | 2088.60001 | 1235.39999 | 1.24970 | 1.05080 | 1.02330 | .93510 | .87160 | .86700 | .87470 |
| .902 | 4.261 | -4.93520 | 2087.20001 | 1231.99999 | 1.25990 | 1.05620 | 1.05410 | .95440 | .87440 | .86700 | .88230 |
| .900 | 8.474 | -4.92930 | 2087.89999 | 1234.70000 | 1.24790 | 1.04790 | 1.06350 | .97068 | .87350 | .87350 | .88750 |
| .901 | 10.612 | -4.94510 | 2086.39999 | 1232.50000 | 1.24230 | 1.03940 | 1.07090 | .97670 | .86930 | .86930 | .87920 |
| .897 | 12.727 | -4.92900 | 2085.70001 | 1236.89999 | 1.23250 | 1.02350 | 1.07230 | .97210 | .86940 | .86940 | .88251 |
| .897 | 14.861 | -4.93440 | 2086.39999 | 1237.60001 | 1.21830 | 1.01168 | 1.07250 | .97350 | .84720 | .84720 | .85490 |
| .899 | 16.925 | -4.94010 | 2085.70001 | 1235.39999 | 1.20370 | .99470 | 1.06540 | .96540 | .84190 | .84190 | .85450 |
| .912 | 21.284 | -4.97930 | 2087.20001 | 1231.20000 | 1.16940 | .94790 | 1.03270 | .84290 | .84290 | .84290 | .85370 |
| GRADIENT | | -.00190 | -.33565 | -.84215 | .00245 | .00130 | .00741 | .00464 | .00057 | .00117 | .00497 |

TABULATED DATA - OA16L (ARC 11-97-87-09#)

ARC 11-97-87-09# OA16L ORBITER + TUFTS

(AE7R081 (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XG
 LREF = 474.9000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 ALTRON = .000 SDFLAP = -7.170

| MACH | ALPHA | BETA | PT | RV/L | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|-------------------|---------|---------|---------|---------|--------|--------|--------|
| .950 | .112 | -4.57210 | 2056.08000 | 1150.70900 | 4.20 | 1.29870 | 1.07910 | 1.05300 | .95020 | .82550 | .81680 | .82840 |
| .948 | 4.275 | -4.57530 | 2055.29699 | 1152.80000 | 4.20 | 1.30000 | 1.08350 | 1.07880 | .98240 | .83330 | .82230 | .83330 |
| .949 | 8.519 | -4.95560 | 2056.00000 | 1152.10001 | 4.20 | 1.29660 | 1.07460 | 1.08420 | 1.00000 | .82550 | .82350 | .83550 |
| .947 | 10.652 | -4.95620 | 2055.00000 | 1154.20000 | 4.20 | 1.28750 | 1.06290 | 1.09850 | 1.00240 | .82030 | .81310 | .83710 |
| .947 | 12.785 | -4.94230 | 2055.29599 | 1154.20000 | 4.20 | 1.27840 | 1.04980 | 1.12330 | 1.00530 | .81770 | .81260 | .82760 |
| .946 | 14.929 | -4.95310 | 2056.00000 | 1155.60001 | 4.20 | 1.26100 | 1.03340 | 1.09760 | .99740 | .79680 | .79660 | .81350 |
| .946 | 17.073 | -4.94750 | 2055.29399 | 1154.89999 | 4.20 | 1.24580 | 1.01540 | 1.09460 | .99080 | .79470 | .78510 | .80770 |
| .947 | 21.357 | -4.94430 | 2056.00000 | 1153.50000 | 4.20 | 1.23190 | .98230 | 1.07510 | .96130 | .78800 | .78290 | .79460 |
| GRADIENT | | .00101 | -.16816 | .50446 | | .00031 | .00106 | .00620 | .00774 | .00154 | .00732 | .00132 |

RUN NO. 120/ 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.02
 RUN NO. 121/ 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.02

| MACH | ALPHA | BETA | PT | RV/L | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|-------------------|---------|---------|---------|---------|--------|--------|--------|
| .983 | .120 | -4.97160 | 2067.39999 | 1113.50000 | 4.26 | 1.33860 | 1.10750 | 1.08220 | .97000 | .77470 | .76350 | .76980 |
| .979 | 4.295 | -4.96560 | 2064.50000 | 1117.10001 | 4.26 | 1.33740 | 1.10720 | 1.10750 | 1.00580 | .78120 | .77780 | .78430 |
| .983 | 8.550 | -4.95930 | 2069.79999 | 1114.20000 | 4.26 | 1.32580 | 1.10240 | 1.12400 | 1.02700 | .76940 | .76940 | .78450 |
| .981 | 10.692 | -4.93310 | 2063.79999 | 1114.89999 | 4.26 | 1.32550 | 1.09930 | 1.12870 | 1.02600 | .76890 | .76330 | .78450 |
| .975 | 12.834 | -4.91560 | 2063.10001 | 1119.89999 | 4.26 | 1.30950 | 1.07800 | 1.12540 | 1.02470 | .75930 | .75930 | .77930 |
| .980 | 14.995 | -4.92250 | 2063.79999 | 1115.60001 | 4.26 | 1.28850 | 1.05860 | 1.12570 | 1.02280 | .75900 | .75330 | .76220 |
| .978 | 17.144 | -4.94320 | 2063.10001 | 1118.50000 | 4.26 | 1.27780 | 1.03260 | 1.11830 | 1.06990 | .74770 | .74100 | .74100 |
| .979 | 21.471 | -4.95360 | 2064.50000 | 1117.80000 | 4.26 | 1.23130 | .97310 | 1.09710 | .97970 | .71250 | .69820 | .70080 |
| GRADIENT | | .00144 | -.69457 | .86224 | | -.00029 | -.64007 | .00594 | .00857 | .00156 | .00342 | .00342 |

RUN NO. 130/ 0 RV/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00
 RUN NO. 130/ 0 RV/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | RV/L | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|-------------------|---------|---------|---------|---------|---------|---------|---------|
| 1.050 | .123 | -4.98930 | 2040.50000 | 1075.50000 | 4.26 | 1.44030 | 1.19470 | 1.19360 | 1.00890 | .72500 | .70580 | .71480 |
| 1.049 | 4.301 | -4.95960 | 2041.20000 | 1017.00000 | 4.26 | 1.44040 | 1.18630 | 1.18790 | 1.08210 | .71750 | .70480 | .71440 |
| 1.047 | 8.566 | -4.94610 | 2041.20000 | 1019.80000 | 4.26 | 1.42870 | 1.17010 | 1.19870 | 1.09360 | .70730 | .69570 | .69770 |
| 1.049 | 10.716 | -4.94380 | 2041.20000 | 1017.70000 | 4.26 | 1.42240 | 1.15770 | 1.20710 | 1.09360 | .70450 | .68970 | .68980 |
| 1.049 | 12.871 | -4.93310 | 2041.20000 | 1017.00000 | 4.26 | 1.41140 | 1.14560 | 1.20550 | 1.09940 | .70090 | .68580 | .68080 |
| 1.048 | 15.041 | -4.94120 | 2041.20000 | 1018.40000 | 4.26 | 1.39100 | 1.12040 | 1.19990 | 1.08860 | .69560 | .67410 | .66750 |
| 1.045 | 21.535 | -4.92550 | 2043.30000 | 1023.30000 | 4.26 | 1.31650 | 1.02960 | 1.16140 | 1.03560 | .65060 | .61490 | .61490 |
| GRADIENT | | .00448 | -.16755 | .33509 | | .00002 | .00014 | .00677 | .01035 | -.00180 | -.00048 | -.00048 |

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8900 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 1317 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.100 | .121 | -4.9890 | 2013.6000 | 943.27000 | 1.50350 | 1.21570 | 1.20220 | 1.05860 | .70550 | .68470 | .68560 |
| 1.099 | 4.299 | -4.97370 | 2012.20000 | 943.95000 | 1.50130 | 1.21510 | 1.20220 | 1.11540 | .70330 | .68750 | .68500 |
| 1.097 | 8.564 | -4.95200 | 2013.6000 | 946.75000 | 1.48680 | 1.19280 | 1.24100 | 1.12840 | .68760 | .67000 | .66490 |
| 1.097 | 10.718 | -4.94940 | 2012.20000 | 946.05000 | 1.47870 | 1.18220 | 1.24960 | 1.13410 | .68040 | .67140 | .66110 |
| 1.095 | 12.872 | -4.94280 | 2012.89999 | 946.06000 | 1.46160 | 1.16270 | 1.24720 | 1.13310 | .68920 | .68990 | .68940 |
| 1.095 | 15.048 | -4.93790 | 2012.89999 | 948.16000 | 1.44140 | 1.13630 | 1.24040 | 1.11440 | .68340 | .66150 | .64010 |
| 1.095 | 17.208 | -4.9320 | 2012.20000 | 948.15000 | 1.42300 | 1.11240 | 1.22240 | 1.10640 | .67860 | .65940 | .64010 |
| 1.095 | 21.534 | -4.92310 | 2014.30000 | 947.47000 | 1.36830 | 1.03790 | 1.16930 | .99320 | .64410 | .59600 | .58780 |
| GRADIENT | | .00365 | -.33510 | .16278 | -.00053 | -.00014 | .00766 | .01355 | -.00053 | .00067 | -.00014 |

RUN NO. 1387 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|--------|
| 1.149 | .109 | -4.98050 | 2005.1000 | 883.30000 | 1.56030 | 1.24300 | 1.23980 | 1.07700 | .78030 | .67840 | .67920 |
| 1.149 | 4.282 | -4.96990 | 2003.70000 | 881.90000 | 1.55710 | 1.23740 | 1.26810 | 1.12370 | .69500 | .68370 | .68870 |
| 1.147 | 8.566 | -4.95110 | 2005.80000 | 886.10000 | 1.53890 | 1.21270 | 1.27170 | 1.13900 | .67320 | .65350 | .64530 |
| 1.149 | 10.710 | -4.94960 | 2005.1000 | 885.30000 | 1.53050 | 1.20330 | 1.27820 | 1.14340 | .66070 | .65070 | .64030 |
| 1.150 | 12.868 | -4.95550 | 2004.39999 | 881.91000 | 1.51830 | 1.18370 | 1.27400 | 1.13000 | .67560 | .64920 | .63930 |
| 1.146 | 15.043 | -4.94170 | 2005.1000 | 886.09000 | 1.49640 | 1.15680 | 1.25200 | 1.07610 | .67090 | .64130 | .63070 |
| 1.145 | 17.205 | -4.93410 | 2005.1000 | 886.09000 | 1.47460 | 1.12840 | 1.23020 | 1.04860 | .66400 | .63610 | .62260 |
| 1.145 | 21.535 | -4.92480 | 2007.20000 | 886.20000 | 1.42010 | 1.05320 | 1.17250 | 1.00750 | .63730 | .62210 | .57960 |
| GRADIENT | | .00254 | -.33555 | -.33555 | -.00077 | -.00134 | .00678 | .01119 | -.00127 | .00127 | .00084 |

RUN NO. 1417 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|--------|
| 1.193 | .102 | -4.98160 | 1998.70000 | 826.83000 | 1.69660 | 1.25890 | 1.27730 | 1.08950 | .67390 | .65060 | .64810 |
| 1.193 | 4.277 | -4.96550 | 1999.50000 | 825.45000 | 1.69460 | 1.24780 | 1.30790 | 1.13940 | .67840 | .65920 | .65620 |
| 1.194 | 8.548 | -4.95880 | 2000.89999 | 831.02000 | 1.58490 | 1.22050 | 1.30020 | 1.1580 | .65960 | .63180 | .62150 |
| 1.198 | 10.700 | -4.95900 | 1999.50000 | 826.84000 | 1.58180 | 1.21540 | 1.29880 | 1.09860 | .65710 | .62220 | .61160 |
| 1.197 | 12.859 | -4.94430 | 1999.50000 | 828.23000 | 1.56570 | 1.19620 | 1.27560 | 1.07940 | .65040 | .60450 | .60450 |
| 1.198 | 15.033 | -4.93960 | 1999.50000 | 828.93000 | 1.54980 | 1.16880 | 1.24910 | 1.05150 | .64720 | .62390 | .58470 |
| 1.198 | 17.196 | -4.93430 | 1999.50000 | 830.32000 | 1.52700 | 1.14370 | 1.23390 | 1.05430 | .63700 | .60940 | .57690 |
| 1.198 | 21.512 | -4.92200 | 2000.89999 | 836.63000 | 1.47270 | 1.08450 | 1.19140 | 1.01820 | .61900 | .57560 | .56416 |
| GRADIENT | | -.00048 | .19158 | -.33049 | -.00048 | -.00286 | .00733 | .01219 | -.00108 | .00286 | .00194 |

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(AE7R08) 02 AUG 75

TABULATED DATA - 0A161 (ARC 11-97-87-894)

ARC 11-97-87-894 0A161 ORBITER + TUFTS

REFERENCE DATA

SREF = 2692.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 47.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0390

BETA = -5.080 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.298 | .095 | -4.99240 | 2002.30000 | 724.48900 | 1.73250 | 1.33510 | 1.34120 | 1.11150 | .63970 | .58750 | .60640 |
| 1.300 | 4.252 | -4.99850 | 2003.80000 | 723.70000 | 1.73190 | 1.31990 | 1.35150 | 1.07060 | .63580 | .61120 | .60430 |
| 1.295 | 8.517 | -4.96050 | 2005.10001 | 728.13000 | 1.74420 | 1.28680 | 1.31280 | 1.05950 | .62940 | .58710 | .57900 |
| 1.298 | 10.667 | -4.98030 | 2005.80000 | 728.84000 | 1.76070 | 1.26240 | 1.31050 | 1.05520 | .61920 | .58660 | .56630 |
| 1.294 | 12.821 | -4.94320 | 2005.80000 | 729.54000 | 1.68340 | 1.24060 | 1.30150 | 1.04680 | .61260 | .57840 | .54240 |
| 1.296 | 14.993 | -4.96260 | 2005.80000 | 727.39000 | 1.67430 | 1.22270 | 1.29530 | 1.03680 | .61170 | .58410 | .51760 |
| 1.295 | 17.156 | -4.96900 | 2005.80000 | 728.84000 | 1.64540 | 1.20230 | 1.27830 | 1.03870 | .60370 | .56760 | .50120 |
| 1.293 | 21.480 | -4.98790 | 2005.80000 | 730.93000 | 1.59360 | 1.15410 | 1.24760 | 1.03920 | .58990 | .54460 | .56530 |
| | GRADIENT | .00094 | .84214 | -.18758 | -.00014 | -.00366 | .00248 | -.00984 | .00123 | .00330 | -.00051 |

RUN NO. 150/ 0 RVAL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.403 | .077 | -5.01760 | 2039.10001 | 638.39000 | 1.86980 | 1.41080 | 1.34970 | 1.06180 | .60620 | .56860 | .57390 |
| 1.405 | 4.224 | -5.01920 | 2037.60001 | 635.20000 | 1.86390 | 1.38540 | 1.35340 | 1.07210 | .60740 | .56880 | .57160 |
| 1.400 | 8.487 | -4.95530 | 2038.39999 | 640.51000 | 1.84340 | 1.34870 | 1.35360 | 1.08110 | .60390 | .56160 | .54910 |
| 1.400 | 10.633 | -4.96570 | 2038.39999 | 640.61000 | 1.85360 | 1.32970 | 1.34990 | 1.08310 | .59780 | .57980 | .52390 |
| 1.400 | 12.788 | -4.94620 | 2037.60001 | 640.62000 | 1.81640 | 1.30700 | 1.34380 | 1.07470 | .58710 | .58410 | .51380 |
| 1.398 | 14.948 | -4.97440 | 2038.39999 | 642.08000 | 1.79360 | 1.28370 | 1.33110 | 1.05766 | .58540 | .56710 | .42940 |
| 1.399 | 17.110 | -4.97070 | 2038.39999 | 642.08000 | 1.77140 | 1.26330 | 1.32390 | 1.04970 | .58260 | .62270 | .47800 |
| 1.393 | 21.443 | -4.96750 | 2038.10001 | 647.23000 | 1.70890 | 1.20680 | 1.29860 | 1.01630 | .57050 | .48320 | .56240 |
| 1.393 | GRADIENT | -.08739 | -.35171 | -.52810 | -.00157 | -.00371 | .00089 | -.00248 | .00029 | .00805 | -.00053 |

RUN NO. 151/ 0 RVAL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

(AE7R09) (02 AUG 75)

TABULATED DATA - QAI6L (ARC 11-97-87-09*)
ARC 11-97-87-09* QAI6L ORBITER + TUFTS

REFERENCE DATA

SPEF = 2690.0906 SQ.FT. XMRP = 1078.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ATLRON = .000 BEFLAP = -7.170

RUN NO. 98 0 RWL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PSS/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|--------|--------|--------|--------|--------|--------|
| .595 | .112 | -1.88250 | 2590.7000 | 2038.39999 | 1.06440 | 1.02440 | .98900 | .96900 | .95090 | .94620 | .94620 | .94620 |
| .595 | 4.181 | -1.86630 | 2591.39999 | 2039.10001 | 1.06778 | 1.02710 | .99790 | .97340 | .95130 | .94840 | .94840 | .95720 |
| .597 | 8.344 | -1.85240 | 2607.70001 | 2049.10001 | 1.06538 | 1.02510 | .99710 | .97590 | .94980 | .94770 | .94770 | .95950 |
| .597 | 10.452 | -1.84800 | 2607.70001 | 2049.79999 | 1.06190 | 1.01968 | .99699 | .97410 | .94930 | .94930 | .94930 | .95740 |
| .597 | 12.575 | -1.84030 | 2607.70001 | 2049.79999 | 1.05738 | 1.01260 | .99760 | .98330 | .94700 | .94760 | .94760 | .95810 |
| .597 | 14.677 | -1.81490 | 2607.70001 | 2049.79999 | 1.04830 | 1.00520 | .99370 | .98110 | .94390 | .94440 | .94440 | .95000 |
| .597 | 16.807 | -1.87060 | 2607.70001 | 2049.79999 | 1.04010 | 1.00520 | .98940 | .97360 | .94080 | .94060 | .94060 | .95000 |
| .595 | 21.048 | -1.86020 | 2607.70001 | 2051.89999 | 1.01570 | .97180 | .97690 | .95750 | .92750 | .94330 | .94330 | .95000 |
| GRADIENT | | .00644 | .17201 | .17198 | .00081 | .00066 | .00219 | .00108 | .00010 | .00054 | .00054 | .00044 |

RUN NO. 101 0 RWL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PSS/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|--------|
| .796 | .083 | -1.89060 | 2226.50000 | 1466.70000 | 1.13700 | 1.05900 | .97930 | .93650 | .90640 | .90360 | .90360 | .91880 |
| .797 | 4.218 | -1.87190 | 2227.89998 | 1466.00000 | 1.13860 | 1.06310 | 1.00120 | .96060 | .90840 | .90660 | .90660 | .92010 |
| .795 | 8.431 | -1.85700 | 2229.29999 | 1459.50000 | 1.13510 | 1.05810 | 1.00600 | .97010 | .90220 | .90750 | .90750 | .91840 |
| .797 | 10.563 | -1.84760 | 2230.00000 | 1456.70000 | 1.12940 | 1.05260 | 1.01010 | .97270 | .90150 | .90370 | .90370 | .91860 |
| .798 | 12.687 | -1.84750 | 2229.29999 | 1456.70000 | 1.12370 | 1.04380 | 1.01330 | .97410 | .89830 | .90040 | .90040 | .91550 |
| .795 | 14.864 | -1.83770 | 2229.29999 | 1458.10001 | 1.10990 | 1.02680 | 1.00510 | .96920 | .88550 | .89390 | .89390 | .90160 |
| .797 | 16.965 | -1.89160 | 2229.29999 | 1467.39999 | 1.09790 | 1.01340 | 1.00290 | .96920 | .87640 | .88690 | .88690 | .89410 |
| .795 | 21.263 | -1.87480 | 2230.00000 | 1470.99999 | 1.05620 | .97080 | .98300 | .94450 | .86120 | .85910 | .85910 | .86410 |
| GRADIENT | | .00452 | .33873 | -.16934 | .00039 | .00099 | .00530 | .00565 | .00063 | .00073 | .00073 | .00031 |

RUN NO. 109 0 RWL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PSS/P | PS7/P |
|------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|--------|
| .848 | .076 | -1.89440 | 2176.29999 | 1359.39999 | 1.16450 | 1.07630 | .98310 | .95160 | .88730 | .88890 | .88890 | .90390 |
| .849 | 4.224 | -1.86420 | 2177.70001 | 1359.70000 | 1.16700 | 1.08050 | 1.00670 | .96860 | .89210 | .89290 | .89290 | .90710 |
| .847 | 8.442 | -1.85920 | 2177.70001 | 1354.50001 | 1.16440 | 1.07480 | 1.01710 | .96510 | .88710 | .89060 | .89060 | .90570 |
| .848 | 10.580 | -1.85260 | 2177.70001 | 1350.20000 | 1.15700 | 1.06870 | 1.02090 | .96410 | .88480 | .88850 | .88850 | .90430 |
| .849 | 12.708 | -1.84930 | 2177.70001 | 1350.89999 | 1.15130 | 1.06540 | 1.02490 | .96730 | .88010 | .88360 | .88360 | .90090 |
| .847 | 14.821 | -1.83720 | 2177.70001 | 1361.60001 | 1.13540 | 1.04340 | 1.01930 | .96480 | .86720 | .87170 | .87170 | .87110 |
| .848 | 16.922 | -1.89550 | 2177.70001 | 1360.99999 | 1.12160 | 1.02500 | 1.01530 | .97850 | .85950 | .86330 | .86330 | .87110 |
| .848 | 21.288 | -1.87530 | 2178.39999 | 1355.80000 | 1.07830 | .98000 | .99500 | .95500 | .83170 | .82920 | .82920 | .83260 |
| .845 | | .33750 | -.16974 | .00060 | .00101 | .00101 | .00569 | .00405 | .00116 | .00096 | .00096 | .00077 |

(AE7R09A) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
 LREF = 477.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = -2.000° ELEVON = .090
 AILRON = .080 BOELAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .900 | .087 | -1.89340 | 2095.60001 | 1239.60001 | 1.20020 | 1.09900 | .95640 | .96640 | .87510 | .86920 | .86550 |
| .903 | 4.254 | -1.85120 | 2097.79999 | 1236.10001 | 1.24290 | 1.10920 | 1.06560 | .97880 | .87880 | .87170 | .86980 |
| .900 | 8.460 | -1.84760 | 2097.79999 | 1240.30000 | 1.26050 | 1.09750 | 1.03530 | .93560 | .87510 | .87370 | .87080 |
| .899 | 10.596 | -1.84620 | 2097.79999 | 1241.80000 | 1.19200 | 1.09090 | 1.03670 | .99900 | .86970 | .86660 | .86370 |
| .898 | 12.725 | -1.83950 | 2097.79999 | 1243.20000 | 1.18840 | 1.07750 | 1.04170 | .99900 | .85800 | .85310 | .85380 |
| .899 | 14.859 | -1.84180 | 2097.79999 | 1241.00000 | 1.17020 | 1.06350 | 1.04040 | .98320 | .85070 | .84680 | .84420 |
| .900 | 17.022 | -1.82560 | 2097.79999 | 1239.60001 | 1.15750 | 1.04710 | 1.03600 | .95670 | .83710 | .83450 | .83660 |
| .903 | 21.319 | -1.87620 | 2099.20001 | 1245.39999 | 1.10860 | .99430 | 1.01030 | .96780 | .93200 | .78270 | .90520 |
| .897 | GRADIENT | .01014 | .52859 | -.84060 | .00305 | .00245 | .00704 | .00538 | .00089 | .00228 | .00108 |

RUN NO. 112/ 0 RNL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 119/ 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| .947 | .073 | -1.89870 | 2054.60001 | 1152.80000 | 1.24320 | 1.13240 | 1.02850 | .97180 | .84140 | .82950 | .84660 |
| .947 | 4.252 | -1.86160 | 2055.29999 | 1154.20000 | 1.24250 | 1.13440 | 1.04570 | 1.00370 | .86990 | .82410 | .84620 |
| .947 | 7.556 | 3.88240 | 2056.00000 | 1153.50000 | 1.20980 | 1.09040 | 1.06480 | 1.02970 | .78800 | .78890 | .80320 |
| .947 | 10.646 | -1.84310 | 2055.29999 | 1153.50000 | 1.23330 | 1.11870 | 1.06900 | 1.03090 | .82430 | .81920 | .84050 |
| .949 | 12.784 | -1.84600 | 2056.70001 | 1152.10001 | 1.22450 | 1.10760 | 1.06840 | 1.03450 | .81140 | .80260 | .82250 |
| .949 | 16.070 | 4.34410 | 2056.70001 | 1154.89999 | 1.23950 | 1.12790 | 1.06420 | 1.02510 | .82740 | .81820 | .83520 |
| .945 | 17.115 | -1.91330 | 2056.00000 | 1155.60001 | 1.18960 | 1.06750 | 1.06490 | 1.02190 | .77760 | .77150 | .78090 |
| .948 | 21.412 | -1.87230 | 2057.39999 | 1154.20000 | 1.14880 | 1.01880 | 1.03730 | .99400 | .74000 | .72650 | .74340 |
| GRADIENT | | .00305 | .16748 | .33487 | -.08817 | .80048 | .00603 | .00763 | -.00275 | -.00129 | -.00010 |

RUN NO. 122/ 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 122/ 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .979 | .085 | -1.88960 | 2061.70001 | 1117.10001 | 1.27800 | 1.16060 | 1.04350 | .99810 | .78670 | .77990 | .79510 |
| .979 | 4.268 | -1.86460 | 2064.50000 | 1117.80000 | 1.28080 | 1.16470 | 1.07320 | 1.03190 | .78940 | .78130 | .79970 |
| .980 | 8.574 | -1.84890 | 2066.60001 | 1117.10001 | 1.27780 | 1.15740 | 1.09250 | 1.05180 | .77830 | .76890 | .78820 |
| .981 | 10.682 | -1.82560 | 2065.89999 | 1115.30000 | 1.26940 | 1.14820 | 1.09520 | 1.05780 | .77530 | .76290 | .76670 |
| .982 | 12.837 | -1.83270 | 2067.39999 | 1115.60001 | 1.25970 | 1.13470 | 1.09510 | 1.05950 | .75600 | .74300 | .75460 |
| .986 | 14.970 | -1.84440 | 2066.60001 | 1117.80000 | 1.24280 | 1.11450 | 1.08680 | 1.05440 | .74890 | .74070 | .75080 |
| .981 | 17.181 | -1.92340 | 2066.60001 | 1117.10001 | 1.22390 | 1.09410 | 1.08290 | 1.04400 | .73390 | .72440 | .73100 |
| .975 | 21.502 | -1.89370 | 2068.79999 | 1123.50000 | 1.17190 | 1.03720 | 1.05550 | 1.01980 | .71290 | .71190 | .68640 |
| GRADIENT | | .00998 | .56936 | .16734 | .09067 | .03770 | .00710 | .00808 | .00017 | .00033 | .00110 |

TABULATED DATA - DATE 1 (ARC 11-97-87-094)

ARC 11-97-87-094 04161 ORBITER + TUFTS

(AE7R09) (02 AUG 76)

REFERENCE DATA

SREF = 2896.0000 90.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0800 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RUN NO. 129/ 0 R/V/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| 1.051 | .092 | -1.90410 | 2040.50000 | 1014.20000 | 1.37760 | 1.24790 | 1.12360 | 1.07220 | .72360 | .70410 | .71750 |
| 1.050 | 4.280 | -1.87050 | 2039.80000 | 1015.60000 | 1.37700 | 1.24980 | 1.12330 | 1.10970 | .72470 | .71090 | .72220 |
| 1.046 | 8.556 | -1.85190 | 2042.60000 | 1021.20000 | 1.38520 | 1.23390 | 1.15610 | 1.12100 | .70940 | .70180 | .71120 |
| 1.048 | 10.717 | -1.83180 | 2049.90000 | 1017.70000 | 1.38520 | 1.22440 | 1.16970 | 1.12880 | .69570 | .69730 | .70400 |
| 1.050 | 12.863 | -1.82570 | 2040.50000 | 1016.30000 | 1.38490 | 1.20950 | 1.16970 | 1.13200 | .68720 | .68720 | .69100 |
| 1.048 | 15.017 | -1.83260 | 2041.26000 | 1017.70000 | 1.38300 | 1.18740 | 1.16150 | 1.13200 | .66790 | .66790 | .66790 |
| 1.053 | 17.239 | -1.84020 | 2041.89999 | 1017.00000 | 1.41020 | 1.16140 | 1.15160 | 1.13000 | .67310 | .67240 | .64390 |
| 1.043 | 21.584 | -1.89140 | 2042.60000 | 1026.10000 | 1.24840 | 1.09480 | 1.11390 | 1.06990 | .84550 | .82960 | .59810 |
| 1.040 | 26.791 | -1.80950 | 2044.00000 | 1029.60000 | 1.16370 | 1.08980 | 1.05320 | 1.00400 | .53480 | .57020 | .53480 |
| GRADIENT | | .00802 | -.16714 | .33430 | -.00014 | .00665 | .00872 | | .00826 | .00162 | .00112 |

RUN NO. 132/ 0 R/V/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.098 | .083 | -1.90410 | 2011.50000 | 944.65000 | 1.43180 | 1.28840 | 1.16110 | 1.09700 | .71610 | .69860 | .70740 |
| 1.100 | 4.280 | -1.87710 | 2010.80000 | 941.85000 | 1.43190 | 1.29000 | 1.16110 | 1.14460 | .71590 | .70290 | .70670 |
| 1.095 | 8.553 | -1.85940 | 2012.20000 | 948.85000 | 1.41520 | 1.28470 | 1.20390 | 1.15910 | .70660 | .69630 | .69550 |
| 1.097 | 10.715 | -1.83930 | 2012.89999 | 946.05000 | 1.40560 | 1.25250 | 1.20710 | 1.16450 | .69390 | .68810 | .68810 |
| 1.095 | 12.868 | -1.84330 | 2012.20000 | 946.75000 | 1.39160 | 1.23470 | 1.20160 | 1.16300 | .69530 | .69080 | .67300 |
| 1.099 | 15.033 | -1.88100 | 2012.20000 | 944.65000 | 1.37650 | 1.21660 | 1.19430 | 1.15390 | .69070 | .69550 | .65750 |
| 1.095 | 17.250 | -1.92310 | 2011.50000 | 947.45000 | 1.35230 | 1.18460 | 1.17600 | 1.13560 | .67080 | .67360 | .62160 |
| 1.096 | 21.582 | -1.90180 | 2015.00000 | 948.18000 | 1.29340 | 1.11860 | 1.12310 | 1.04740 | .64260 | .63750 | .58570 |
| GRADIENT | | .00643 | -.16680 | -.66722 | .00002 | .00638 | .04751 | .01134 | -.00805 | .00102 | -.00017 |

RUN NO. 137/ 0 R/V/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.149 | .080 | -1.90860 | 2001.60000 | 881.88000 | 1.48300 | 1.32160 | 1.20100 | 1.12190 | .70890 | .69050 | .69890 |
| 1.151 | 4.253 | -1.86400 | 2006.50000 | 891.23000 | 1.47800 | 1.31310 | 1.23180 | 1.16740 | .69700 | .68020 | .68360 |
| 1.145 | 8.543 | -1.85250 | 2005.10000 | 887.80000 | 1.45700 | 1.29390 | 1.23670 | 1.18090 | .69300 | .69630 | .67320 |
| 1.147 | 10.708 | -1.83170 | 2005.10000 | 884.70000 | 1.45020 | 1.27480 | 1.24150 | 1.19900 | .69700 | .68990 | .67250 |
| 1.147 | 12.864 | -1.82780 | 2005.10000 | 884.70000 | 1.43640 | 1.29780 | 1.23130 | 1.19050 | .68910 | .68910 | .65900 |
| 1.149 | 15.024 | -1.87340 | 2005.10000 | 884.00000 | 1.42860 | 1.27300 | 1.21300 | 1.13510 | .68460 | .65410 | .63460 |
| 1.145 | 17.239 | -1.91920 | 2004.39999 | 886.09000 | 1.39760 | 1.20720 | 1.18880 | 1.11150 | .66280 | .65720 | .64210 |
| 1.147 | 21.570 | -1.88560 | 2007.99999 | 886.12000 | 1.34000 | 1.13810 | 1.10990 | 1.06560 | .64400 | .59320 | .57470 |
| GRADIENT | | .01667 | 1.17259 | -.15555 | -.00120 | -.00203 | .00731 | .01089 | -.00265 | -.00246 | -.00366 |

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TABULATED DATA - OAI61 (ARC 11-97-87-08*)
ARC 11-97-87-08* OAI61 ORBITER + TUETS

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. YD
LREF = 474.8600 IN. YMRP = .0000 IN. YD
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZD
SCALE = .0300

BETA =
A/LRON =
PARAMETRIC DATA
PSSAP = -2.000
ELEVON = .000
BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSSAP | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.195 | .078 | -1.9090 | 1995.20000 | 826.81000 | 1.52800 | 1.34400 | 1.23730 | 1.13050 | .68180 | .65020 | .66240 |
| 1.201 | 4.257 | -1.89070 | 2003.89999 | 824.07000 | 1.52400 | 1.33920 | 1.23570 | 1.17160 | .67430 | .65500 | .65490 |
| 1.199 | 8.539 | -1.87370 | 1999.50000 | 830.32000 | 1.50800 | 1.31400 | 1.26100 | 1.16910 | .66980 | .69190 | .64040 |
| 1.195 | 10.702 | -1.85980 | 2003.89999 | 829.63000 | 1.49760 | 1.29720 | 1.24190 | 1.14050 | .66980 | .67740 | .62840 |
| 1.196 | 12.657 | -1.84940 | 1998.70000 | 828.22000 | 1.48360 | 1.28140 | 1.20280 | 1.13120 | .66480 | .66430 | .62190 |
| 1.197 | 15.014 | -1.84210 | 1999.50000 | 828.93000 | 1.46740 | 1.25610 | 1.19180 | 1.12280 | .64370 | .65270 | .59120 |
| 1.197 | 17.227 | -1.82100 | 1998.50000 | 828.23000 | 1.44600 | 1.22760 | 1.17650 | 1.11050 | .62860 | .64170 | .58729 |
| 1.189 | 21.554 | -1.89230 | 2006.20000 | 837.29000 | 1.38190 | 1.16730 | 1.13010 | 1.07970 | .62860 | .59510 | .54150 |
| GRADIENT | | .09577 | 1.36416 | -.65575 | -.00095 | -.00415 | -.00536 | -.00984 | -.60779 | -.00115 | -.00179 |

RUN NO. 142 0 RM/L = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSSAP | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.299 | .062 | -1.91460 | 2001.68001 | 723.01000 | 1.64010 | 1.41490 | 1.28430 | 1.15810 | .64400 | .61250 | .61440 |
| 1.298 | 4.267 | -1.87610 | 2005.10001 | 725.18000 | 1.63180 | 1.40430 | 1.26840 | 1.13320 | .63830 | .62470 | .60970 |
| 1.296 | 8.505 | -1.85020 | 2005.80000 | 728.12000 | 1.61490 | 1.37140 | 1.24130 | 1.12410 | .63090 | .64260 | .59420 |
| 1.294 | 10.674 | -1.83610 | 2005.80000 | 729.54000 | 1.60070 | 1.35160 | 1.23080 | 1.11960 | .62840 | .64440 | .57840 |
| 1.295 | 12.819 | -1.83300 | 2005.80000 | 728.84000 | 1.59040 | 1.32980 | 1.22220 | 1.11890 | .62100 | .64320 | .55480 |
| 1.296 | 14.968 | -1.85510 | 2005.80000 | 727.35000 | 1.57510 | 1.31090 | 1.20850 | 1.11390 | .60980 | .61990 | .53480 |
| 1.295 | 17.182 | -1.90790 | 2005.80000 | 727.39000 | 1.55170 | 1.28640 | 1.19550 | 1.10070 | .60290 | .60250 | .51570 |
| 1.293 | 21.527 | -1.89660 | 2006.50000 | 731.63000 | 1.48660 | 1.23590 | 1.15890 | 1.07340 | .59400 | .60230 | .48250 |
| GRADIENT | | .00924 | .84036 | -.52102 | -.00199 | -.00255 | -.00382 | -.00622 | -.00132 | -.00293 | -.00173 |

RUN NO. 149 0 RM/L = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSSAP | PS6/P | PS7/P |
|----------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.403 | 4.213 | -1.90550 | 2037.60001 | 637.68000 | 1.76230 | 1.50350 | 1.26020 | 1.12800 | .61550 | .58120 | .58660 |
| 1.404 | 8.475 | -1.87340 | 2036.89999 | 636.96000 | 1.74740 | 1.48770 | 1.27680 | 1.12950 | .61460 | .57660 | .57440 |
| 1.399 | 10.633 | -1.84630 | 2037.60001 | 641.36000 | 1.72180 | 1.44380 | 1.26830 | 1.14120 | .61090 | .59260 | .55320 |
| 1.399 | 12.774 | -1.84720 | 2038.39999 | 641.36000 | 1.71250 | 1.42480 | 1.26450 | 1.14450 | .59930 | .56270 | .53410 |
| 1.393 | 14.923 | -1.84190 | 2037.60001 | 641.36000 | 1.69990 | 1.40890 | 1.25500 | 1.14150 | .59320 | .59370 | .52130 |
| 1.393 | 17.135 | -1.85230 | 2038.39999 | 641.36000 | 1.68510 | 1.38110 | 1.24510 | 1.13540 | .58820 | .56270 | .50220 |
| 1.400 | 21.482 | -1.91190 | 2037.60001 | 640.63000 | 1.65490 | 1.36160 | 1.23190 | 1.12980 | .58410 | .57980 | .48940 |
| 1.399 | GRADIENT | .00771 | -.16804 | 645.75000 | 1.58740 | 1.30980 | 1.20140 | 1.09710 | .57340 | .57910 | .46490 |
| GRADIENT | | | | -.17283 | -.00350 | -.00382 | -.00396 | -.00030 | -.00022 | -.00110 | -.00149 |

RUN NO. 152 0 RM/L = 4.20 GRADIENT INTERVAL = -5.004 5.00

TABULATED DATA - 0A161 (ARC 11-97-67-094)

(AE7R1Q) (02 AUG 76)

ARC 11-97-67-094 0A161 ORBITER + TUETS

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AFLRON = .080 BOFLAP = -7.870

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 977 0 RIVL = 4.21 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|--------|--------|--------|--------|--------|
| .795 | .098 | .15020 | 2591.39999 | 2039.10001 | 1.04980 | 1.03770 | .98140 | .97450 | .95070 | .94630 | .96530 |
| .796 | 2.126 | .19990 | 2592.10001 | 2039.10001 | 1.05120 | 1.04000 | .98510 | .97850 | .95080 | .94610 | .95530 |
| .797 | 4.283 | .19990 | 2592.10001 | 2039.10001 | 1.05170 | 1.04240 | .98900 | .98130 | .95160 | .94660 | .96550 |
| .797 | 6.317 | .21090 | 2592.89999 | 2039.80000 | 1.05190 | 1.04020 | .99070 | .98220 | .95100 | .94790 | .95710 |
| .797 | 8.434 | .21520 | 2593.60001 | 2039.80000 | 1.05040 | 1.03840 | .98980 | .98340 | .95010 | .94740 | .95480 |
| .799 | 10.438 | .21610 | 2595.60001 | 2039.80000 | 1.04580 | 1.03330 | .98930 | .98390 | .94990 | .94820 | .95610 |
| .796 | 12.529 | .21340 | 2593.60001 | 2039.80000 | 1.04330 | 1.02810 | .98850 | .98100 | .94950 | .94770 | .95430 |
| .796 | 14.646 | .22380 | 2594.29999 | 2039.80000 | 1.03450 | 1.02100 | .98440 | .97380 | .94570 | .94790 | .95250 |
| .796 | 16.765 | .22900 | 2593.60001 | 2039.80000 | 1.02440 | 1.01170 | .98000 | .96750 | .94260 | .94710 | .95420 |
| .796 | 18.882 | .22350 | 2594.29999 | 2040.00000 | 1.01240 | 1.00420 | .97410 | .96000 | .93600 | .94420 | .95870 |
| .795 | 20.993 | .21450 | 2594.29999 | 2042.00000 | 1.00150 | .98830 | .96610 | .95460 | .92950 | .95710 | .92960 |
| .795 | 28.179 | .21920 | 2595.00000 | 2042.00000 | .99920 | .98650 | .94090 | .94300 | .91160 | .92240 | .92460 |
| .795 | GRADIENT | .08930 | .17397 | -.00002 | .90046 | .00115 | .00186 | .00166 | .00022 | .00307 | .00053 |

RUN NO. 1027 0 RIVL = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|--------|--------|---------|---------|---------|
| .798 | .075 | .15630 | 2198.20001 | 1445.39999 | 1.11070 | 1.08700 | .97190 | .96590 | .91260 | .91060 | .92270 |
| .799 | 2.126 | .20280 | 2198.89999 | 1444.00000 | 1.10920 | 1.08900 | .97740 | .97490 | .90550 | .90310 | .91610 |
| .798 | 4.283 | .20270 | 2197.50000 | 1444.70000 | 1.11340 | 1.09090 | .98600 | .97640 | .90680 | .90690 | .91960 |
| .797 | 6.317 | .21180 | 2197.50000 | 1446.10001 | 1.11280 | 1.08900 | .99050 | .98680 | .90730 | .90800 | .91970 |
| .797 | 8.434 | .21790 | 2198.20001 | 1446.80000 | 1.10740 | 1.08380 | .99010 | .98840 | .90310 | .90590 | .91830 |
| .799 | 10.438 | .21480 | 2198.20001 | 1445.39999 | 1.10400 | 1.07820 | .99100 | .98840 | .90350 | .90590 | .91760 |
| .797 | 12.529 | .21040 | 2198.20001 | 1446.10001 | 1.09710 | 1.06910 | .99470 | .99490 | .90040 | .90260 | .91340 |
| .797 | 14.624 | .22530 | 2198.20001 | 1446.80000 | 1.08380 | 1.05950 | .99150 | .99350 | .89130 | .89560 | .90470 |
| .799 | 16.725 | .22020 | 2197.50000 | 1444.00000 | 1.06850 | 1.04090 | .98470 | .98860 | .88190 | .89720 | .86760 |
| .797 | 18.818 | .22760 | 2198.20001 | 1446.80000 | 1.05120 | 1.02460 | .97700 | .97900 | .87690 | .89250 | .87870 |
| .798 | 21.183 | .22450 | 2198.20001 | 1445.39999 | 1.03170 | 1.00490 | .96890 | .96800 | .85890 | .87820 | .85890 |
| .798 | 26.337 | .22600 | 2230.70001 | 1464.50000 | .96790 | .94250 | .93000 | .93390 | .79680 | .87730 | .87730 |
| .797 | GRADIENT | .01046 | -.17039 | -.00066 | .00066 | .00094 | .00341 | .00253 | -.00140 | -.00689 | -.00063 |

TABULATED DATA - 0A164 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + TUFTS

(AETRI01 (02 AUG 78)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILTRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | P | RWL | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|------|-------------------|---------|---------|---------|---------|--------|--------|--------|
| .848 | .044 | .17630 | 2174.89999 | 1359.39999 | 4.24 | -5.00/ 5.00 | 1.13240 | 1.10660 | .96600 | .96470 | .88810 | .88890 | .90140 |
| .849 | 2.133 | .20790 | 2175.60001 | 1357.30000 | | | 1.13320 | 1.11210 | .98060 | .98190 | .89400 | .89400 | .90830 |
| .849 | 4.228 | .19970 | 2176.29999 | 1358.00000 | | | 1.13630 | 1.11378 | .99050 | .99460 | .89440 | .89440 | .90770 |
| .848 | 6.350 | .20750 | 2177.00000 | 1358.20000 | | | 1.13610 | 1.11090 | .99440 | .99630 | .89390 | .89390 | .90730 |
| .848 | 8.444 | .21970 | 2177.70001 | 1360.89999 | | | 1.13180 | 1.10360 | .99920 | .99760 | .89140 | .89140 | .90430 |
| .847 | 10.570 | .21940 | 2177.00000 | 1361.60001 | | | 1.09770 | 1.09770 | 1.00440 | 1.00390 | .89070 | .89070 | .90720 |
| .848 | 12.688 | .21300 | 2177.70001 | 1360.20000 | | | 1.12170 | 1.08610 | 1.00470 | 1.00210 | .88320 | .88320 | .89470 |
| .847 | 14.821 | .22200 | 2177.70001 | 1362.30000 | | | 1.10550 | 1.07390 | 1.00000 | 1.00350 | .87280 | .87280 | .88080 |
| .848 | 16.987 | .22560 | 2177.70001 | 1366.20000 | | | 1.09080 | 1.06050 | .98670 | .98780 | .86930 | .86930 | .89870 |
| .847 | 19.103 | .21920 | 2177.70001 | 1361.60001 | | | 1.06790 | 1.04010 | .98760 | .99070 | .85190 | .85190 | .83800 |
| .847 | 21.243 | .21660 | 2177.70001 | 1361.60001 | | | 1.04920 | 1.01560 | .97810 | .97590 | .83760 | .83760 | .77360 |
| .845 | 26.397 | .21390 | 2177.70001 | 1364.39999 | | | .97690 | .94980 | .95530 | .94440 | .75550 | .75550 | .70150 |
| | GRADIENT | .08936 | .33456 | -.33416 | | | .00093 | .00170 | .00586 | .00475 | .00146 | .00131 | |

| MACH | ALPHA | BETA | PT | P | RWL | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|------|-------------------|---------|---------|---------|---------|--------|--------|--------|
| .898 | .073 | .19930 | 2104.10001 | 1247.50000 | 4.23 | -5.00/ 5.00 | 1.16430 | 1.13260 | .97720 | .97130 | .87260 | .86960 | .88460 |
| .903 | 2.153 | .20200 | 2109.20001 | 1241.40001 | | | 1.17540 | 1.14320 | .99590 | .99270 | .87900 | .87610 | .89220 |
| .900 | 4.293 | .20980 | 2109.50000 | 1245.30000 | | | 1.17410 | 1.13860 | 1.00250 | .99110 | .87450 | .87360 | .89380 |
| .898 | 6.354 | .21190 | 2105.50000 | 1247.90000 | | | 1.16630 | 1.13760 | 1.01230 | 1.00080 | .88130 | .88080 | .89220 |
| .898 | 8.468 | .21820 | 2106.20001 | 1247.39999 | | | 1.16390 | 1.13250 | 1.01470 | 1.01090 | .87540 | .87560 | .89080 |
| .894 | 10.599 | .23180 | 2105.50000 | 1247.50000 | | | 1.15180 | 1.11940 | 1.01680 | 1.01170 | .86450 | .86450 | .87980 |
| .899 | 12.725 | .23390 | 2106.20001 | 1248.20000 | | | 1.13240 | 1.11330 | 1.02090 | 1.01920 | .85750 | .85570 | .87130 |
| .898 | 14.862 | .22660 | 2105.50000 | 1247.50000 | | | 1.11950 | 1.09770 | 1.01590 | 1.01470 | .84460 | .84460 | .85690 |
| .898 | 17.003 | .22830 | 2105.50000 | 1250.30000 | | | 1.10570 | 1.08200 | 1.01200 | 1.00620 | .83240 | .83210 | .82900 |
| .898 | 19.145 | .22830 | 2105.50000 | 1251.00001 | | | 1.09540 | 1.05750 | 1.00210 | .99000 | .82340 | .81960 | .82900 |
| .898 | 21.271 | .21660 | 2104.79999 | 1242.50000 | | | 1.07170 | 1.03290 | .98760 | .99000 | .78150 | .78150 | .79780 |
| .898 | 26.462 | .21060 | 2104.79999 | 1242.50000 | | | 1.00580 | .97080 | .95090 | .96940 | .71630 | .71630 | .72780 |
| .902 | GRADIENT | .01231 | .33361 | -.33261 | | | .00234 | .00143 | .00602 | .00473 | .00645 | .00095 | .00124 |

(AET/ROX) (02 AUG 76 1

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALFRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 118# 0 RVAL = 4.21 GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| 947 | .072 | .15080 | 2073.70001 | 1164.10001 | 1.20470 | 1.15970 | 1.00130 | .98830 | .83850 | .83140 | .84470 |
| 946 | 2.159 | .20240 | 2075.50000 | 1165.89999 | 1.20780 | 1.17300 | 1.01280 | .00960 | .83420 | .82600 | .84080 |
| 947 | 4.268 | .20540 | 2075.79999 | 1164.80008 | 1.21320 | 1.17400 | 1.02770 | 1.01650 | .83950 | .83280 | .84640 |
| 944 | 6.383 | .21560 | 2075.79999 | 1168.70000 | 1.20210 | 1.16920 | 1.03510 | 1.02310 | .84010 | .82880 | .85030 |
| 944 | 8.520 | .22760 | 2076.50000 | 1169.00000 | 1.19860 | 1.16360 | 1.04030 | 1.03620 | .83620 | .82900 | .84040 |
| 945 | 10.660 | .22570 | 2075.10001 | 1165.20000 | 1.19470 | 1.15830 | 1.04860 | 1.04420 | .82810 | .82080 | .83530 |
| 948 | 12.786 | .21940 | 2076.50000 | 1164.80000 | 1.19080 | 1.14760 | 1.04190 | 1.04470 | .81610 | .81190 | .82520 |
| 945 | 14.937 | .21660 | 2075.79999 | 1166.89999 | 1.17060 | 1.12870 | 1.03730 | 1.04080 | .79500 | .78740 | .80280 |
| 947 | 17.087 | .20430 | 2075.79999 | 1165.50000 | 1.15450 | 1.11180 | 1.02330 | 1.04780 | .78410 | .78030 | .78950 |
| 942 | 19.245 | .21100 | 2075.79999 | 1172.50000 | 1.12620 | 1.08320 | 1.00820 | 1.02210 | .76310 | .76270 | .76520 |
| 941 | 21.355 | .21670 | 2076.50000 | 1173.20000 | 1.09990 | 1.05730 | 1.00820 | 1.00920 | .74780 | .73690 | .75430 |
| 939 | 26.554 | .20570 | 2077.29999 | 1176.70000 | 1.02270 | .98360 | .96040 | .96910 | .68870 | .67630 | .64660 |
| | | .01299 | .49984 | .16477 | .00203 | .00102 | .00529 | .00671 | .00024 | .00034 | .00041 |

GRADIENT

RUN NO. 123# 0 RVAL = 4.22 GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|--------|------------|------------|---------|---------|---------|---------|---------|--------|--------|
| 982 | .054 | .18010 | 2065.20001 | 1114.20090 | 1.24210 | 1.20630 | 1.02720 | 1.02080 | .78990 | .78190 | .79630 |
| 979 | 2.171 | .18210 | 2061.70001 | 1115.70000 | 1.25980 | 1.20570 | 1.04020 | 1.03220 | .79180 | .78700 | .79620 |
| 981 | 4.272 | .20400 | 2065.20001 | 1114.89999 | 1.24329 | 1.20800 | 1.05420 | 1.05260 | .78570 | .78220 | .80050 |
| 981 | 6.397 | .21670 | 2065.50001 | 1116.30000 | 1.24160 | 1.20450 | 1.06510 | 1.06160 | .78369 | .77480 | .79260 |
| 978 | 8.547 | .22430 | 2065.89999 | 1119.20000 | 1.23430 | 1.19520 | 1.06610 | 1.06820 | .77700 | .76700 | .77930 |
| 979 | 10.704 | .21780 | 2065.89999 | 1118.50000 | 1.22590 | 1.18680 | 1.07010 | 1.07590 | .76980 | .75930 | .76510 |
| 979 | 12.845 | .21910 | 2065.89999 | 1117.80000 | 1.21630 | 1.17390 | 1.07060 | 1.07880 | .77070 | .75310 | .76870 |
| 979 | 14.998 | .22760 | 2065.89999 | 1118.50000 | 1.19960 | 1.15820 | 1.06300 | 1.07640 | .74240 | .73240 | .74020 |
| 980 | 17.163 | .21930 | 2065.89999 | 1116.30000 | 1.18340 | 1.13570 | 1.05910 | 1.06930 | .73940 | .72740 | .73300 |
| 983 | 19.309 | .22250 | 2068.79233 | 1114.89999 | 1.16260 | 1.11620 | 1.05630 | 1.06210 | .72200 | .70920 | .70940 |
| 978 | 21.455 | .20700 | 2067.39999 | 1119.89999 | 1.09390 | 1.09390 | 1.03010 | 1.03760 | .71650 | .70670 | .70820 |
| 975 | 26.637 | .20850 | 2065.20001 | 1123.50000 | 1.04970 | 1.06380 | .97840 | .98800 | .65440 | .64490 | .60820 |
| | | .00566 | .00201 | .16661 | .00026 | .00040 | .00640 | .00794 | -.00099 | .00007 | .00089 |

GRADIENT

REFERENCE DATA

MACH = 2690.0000 SO.FT. XMRP = 1076.6900 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 SREF = 938.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RUN NO. 1287 0 RWML = 4.26 GRADIENT INTERVAL = -5.007 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|--------|--------|------------|---------|---------|---------|--------|--------|--------|
| 1.049 | .082 | .19690 | 2040 | 50000 | 1017.70000 | 1.33200 | 1.09790 | 1.09280 | .72030 | .69840 | .71910 |
| 1.054 | 2.171 | .19930 | 2041 | 20000 | 1011.40000 | 1.33790 | 1.11330 | 1.11330 | .72640 | .70970 | .72320 |
| 1.049 | 4.287 | .19680 | 2041 | 20000 | 1017.76000 | 1.33330 | 1.12610 | 1.12720 | .72660 | .71250 | .71840 |
| 1.049 | 6.412 | .21670 | 2043 | 30000 | 1017.00000 | 1.32110 | 1.14210 | 1.13670 | .72200 | .70770 | .72600 |
| 1.048 | 8.565 | .21868 | 2040 | 50000 | 1017.70000 | 1.32560 | 1.14390 | 1.14270 | .72520 | .71220 | .70650 |
| 1.048 | 10.722 | .22270 | 2041 | 99999 | 1019.10000 | 1.31520 | 1.14570 | 1.15150 | .71370 | .69970 | .68760 |
| 1.049 | 12.889 | .22090 | 2044 | 99999 | 1018.40000 | 1.30970 | 1.14230 | 1.15250 | .70190 | .67750 | .66160 |
| 1.048 | 15.039 | .22220 | 2041 | 20000 | 1018.40000 | 1.29230 | 1.13520 | 1.14820 | .68870 | .66750 | .64780 |
| 1.049 | 17.215 | .21950 | 2041 | 20000 | 1017.70000 | 1.26990 | 1.12440 | 1.13690 | .68870 | .66250 | .64280 |
| 1.046 | 19.379 | .22130 | 2041 | 89999 | 1021.20000 | 1.18160 | 1.10800 | 1.12060 | .67920 | .65100 | .62880 |
| 1.043 | 21.531 | .20930 | 2041 | 89999 | 1024.70000 | 1.14940 | 1.08540 | 1.09950 | .66980 | .63980 | .61560 |
| 1.041 | 26.732 | .21260 | 2043 | 30000 | 1028.20000 | .05440 | 1.02460 | 1.03010 | .61240 | .57680 | .55970 |
| | GRADIENT | .00947 | .16610 | .00643 | .00030 | .00118 | .00429 | .00848 | .00150 | .00335 | .00058 |

RUN NO. 1337 0 RWML = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|--------|--------|-----------|---------|---------|---------|--------|--------|--------|
| 1.097 | .074 | .16790 | 2010 | 80000 | 945.34000 | 1.38410 | 1.13320 | 1.12530 | .71730 | .59980 | .71090 |
| 1.100 | 2.162 | .19230 | 2010 | 80000 | 941.85000 | 1.34150 | 1.15700 | 1.14840 | .72130 | .70430 | .71410 |
| 1.097 | 4.251 | .20950 | 2011 | 50000 | 949.35000 | 1.33670 | 1.16560 | 1.16400 | .71690 | .70290 | .70840 |
| 1.098 | 6.412 | .21770 | 2012 | 20000 | 944.65000 | 1.3210 | 1.17970 | 1.17200 | .71640 | .70300 | .70820 |
| 1.096 | 8.568 | .22720 | 2011 | 50000 | 946.75000 | 1.3120 | 1.18060 | 1.18250 | .71250 | .69920 | .69550 |
| 1.097 | 10.728 | .22130 | 2012 | 89999 | 946.76000 | 1.30620 | 1.17920 | 1.18610 | .70860 | .69520 | .69540 |
| 1.097 | 12.880 | .21720 | 2011 | 90000 | 946.05000 | 1.28960 | 1.17820 | 1.19080 | .70210 | .68100 | .67930 |
| 1.097 | 15.060 | .22340 | 2012 | 89999 | 946.76000 | 1.26650 | 1.16450 | 1.18150 | .68430 | .66100 | .65700 |
| 1.097 | 17.236 | .21250 | 2012 | 20000 | 946.05000 | 1.23900 | 1.14800 | 1.16390 | .67590 | .65290 | .64750 |
| 1.094 | 19.387 | .21480 | 2013 | 62001 | 943.97000 | 1.21350 | 1.12860 | 1.13750 | .66870 | .64500 | .63200 |
| 1.094 | 21.589 | .21320 | 2012 | 89999 | 940.25000 | 1.17760 | 1.10270 | 1.08730 | .65990 | .63640 | .62200 |
| 1.056 | 26.721 | .20810 | 2015 | 70000 | 948.88000 | 1.09260 | 1.00480 | 1.05480 | .61150 | .53630 | .53240 |
| | GRADIENT | .00988 | .16649 | .00761 | .00026 | .00124 | .00791 | .00917 | .00010 | .00073 | .00068 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + TUFTS

(AETR10) (02 AUG 76)

PARAMETRIC DATA

ELEVON = .000
 BDFLAP = -7.F70

BETA = .000
 AILRON = .000

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LPEF = 474.8000 IN. YMRP = .0000 IN. Y0
 BPEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 1364 0 RV/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.147 | .067 | .14780 | 2001.60001 | 883.97000 | 1.43430 | 1.37510 | 1.18010 | 1.14780 | .71690 | .69100 | .70030 |
| 1.157 | 2.150 | .20310 | 2003.70000 | 880.54000 | 1.43050 | 1.37190 | 1.19450 | 1.17478 | .70600 | .68410 | .69060 |
| 1.150 | 4.271 | .20380 | 2003.70000 | 881.20000 | 1.42530 | 1.37170 | 1.20350 | 1.19340 | .68770 | .66480 | .67080 |
| 1.148 | 6.393 | .20360 | 2003.70000 | 884.00000 | 1.41560 | 1.35840 | 1.21210 | 1.20480 | .70290 | .68590 | .69240 |
| 1.147 | 8.551 | .20340 | 2003.70000 | 885.40000 | 1.41400 | 1.35610 | 1.21650 | 1.20700 | .70120 | .68798 | .69420 |
| 1.147 | 10.718 | .20320 | 2003.70000 | 885.40000 | 1.39310 | 1.33390 | 1.21390 | 1.21270 | .69230 | .68510 | .69170 |
| 1.147 | 12.874 | .20300 | 2003.70000 | 885.40000 | 1.38290 | 1.34494 | 1.20240 | 1.21740 | .68420 | .68880 | .68280 |
| 1.146 | 15.036 | .20280 | 2004.39999 | 884.00000 | 1.37280 | 1.30020 | 1.18540 | 1.19660 | .67180 | .64930 | .64270 |
| 1.148 | 17.208 | .21400 | 2005.89999 | 884.00000 | 1.34670 | 1.25940 | 1.13980 | 1.14880 | .66010 | .65560 | .61510 |
| 1.144 | 19.368 | .21970 | 2009.80000 | 889.58000 | 1.31370 | 1.23270 | 1.09440 | 1.11980 | .65040 | .64660 | .53310 |
| 1.146 | 21.543 | .20910 | 2007.20000 | 887.58000 | 1.27970 | 1.20730 | 1.06970 | 1.10950 | .64650 | .60820 | .57280 |
| 1.145 | 26.793 | .20490 | 2010.80000 | 889.63000 | 1.20160 | 1.12820 | 1.08320 | 1.07200 | .64890 | .53080 | .54100 |
| | GRADIENT | .01297 | .49841 | -.65604 | -.00214 | -.00093 | .01227 | -.00078 | -.00323 | -.00078 | -.00430 |

RUN NO. 1437 0 RV/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.197 | .071 | .15820 | 1997.39000 | 826.82000 | 1.46820 | 1.39900 | 1.19570 | 1.15970 | .68390 | .68920 | .66970 |
| 1.201 | 2.150 | .19470 | 2000.20000 | 824.06000 | 1.46430 | 1.40140 | 1.21520 | 1.18480 | .68590 | .68350 | .66590 |
| 1.199 | 4.268 | .20880 | 1998.70000 | 824.75000 | 1.46200 | 1.39370 | 1.22410 | 1.20260 | .68550 | .67120 | .65170 |
| 1.196 | 6.392 | .21920 | 1999.70000 | 825.92000 | 1.45420 | 1.38970 | 1.23340 | 1.20180 | .68260 | .67300 | .65730 |
| 1.195 | 8.578 | .22850 | 2003.20000 | 828.93000 | 1.44840 | 1.37220 | 1.25990 | 1.19580 | .67840 | .66960 | .64750 |
| 1.195 | 10.718 | .23880 | 1999.69999 | 828.93000 | 1.44010 | 1.35910 | 1.21070 | 1.16910 | .67470 | .64790 | .64150 |
| 1.194 | 12.869 | .24900 | 1999.10000 | 828.19000 | 1.42810 | 1.34530 | 1.16200 | 1.14300 | .66740 | .63960 | .62320 |
| 1.195 | 15.039 | .26930 | 1998.00000 | 828.92000 | 1.40960 | 1.32010 | 1.15160 | 1.14310 | .66450 | .60780 | .59810 |
| 1.195 | 17.203 | .28960 | 2002.30000 | 839.34000 | 1.38150 | 1.29300 | 1.12990 | 1.12990 | .66220 | .64590 | .57370 |
| 1.193 | 19.367 | .28660 | 1999.00000 | 841.70000 | 1.35310 | 1.26560 | 1.10770 | 1.12070 | .66020 | .60790 | .56740 |
| 1.199 | 21.546 | .19610 | 1995.20000 | 825.17000 | 1.32260 | 1.23560 | 1.08400 | 1.09800 | .62150 | .59210 | .54970 |
| 1.187 | 26.773 | .19250 | 2003.70000 | 812.82000 | 1.23080 | 1.15610 | 1.01230 | 1.06400 | .59880 | .51810 | .52040 |
| | GRADIENT | .01200 | .53072 | -.49407 | -.00148 | -.00127 | .00553 | -.01065 | .00339 | .00284 | -.00193 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + TUFIS

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = .080 ELEVON = .000
AILIRON = .000 BOFLAP = -7.170

RUN NO. 148/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.297 | .085 | 1.7530 | 2002.30000 | 725.95000 | 1.57080 | 1.47740 | 1.24510 | 1.19160 | 1.65130 | .62090 | .62900 |
| 1.300 | 2.125 | 22.960 | 2005.80000 | 724.44000 | 1.56340 | 1.47960 | 1.25950 | 1.19760 | 1.65120 | .62460 | .62530 |
| 1.299 | 4.238 | 18790 | 2004.39999 | 724.45000 | 1.56230 | 1.46850 | 1.26840 | 1.18610 | 1.64660 | .63530 | .61930 |
| 1.297 | 6.361 | 21120 | 2004.39999 | 726.67000 | 1.52460 | 1.45550 | 1.20690 | 1.17650 | 1.64630 | .64780 | .60830 |
| 1.297 | 8.519 | 21300 | 2005.10001 | 726.66000 | 1.54750 | 1.44160 | 1.19670 | 1.16910 | 1.64470 | .63610 | .60300 |
| 1.295 | 10.684 | 21010 | 2004.39999 | 726.13000 | 1.53180 | 1.42800 | 1.19040 | 1.17070 | 1.63750 | .64140 | .59820 |
| 1.296 | 12.835 | 22300 | 2005.10001 | 732.23000 | 1.51980 | 1.40270 | 1.17840 | 1.16990 | 1.63030 | .60930 | .54660 |
| 1.296 | 14.982 | 22010 | 2005.80000 | 728.13000 | 1.50400 | 1.38340 | 1.16260 | 1.15960 | 1.61960 | .59310 | .54660 |
| 1.296 | 17.160 | 22930 | 2005.10001 | 727.40000 | 1.47520 | 1.35780 | 1.14700 | 1.15770 | 1.59950 | .59280 | .50720 |
| 1.294 | 19.313 | 22130 | 2005.10001 | 730.23000 | 1.44570 | 1.33030 | 1.12920 | 1.14340 | 1.59730 | .54190 | .50340 |
| 1.295 | 21.466 | 21070 | 2006.90000 | 728.85000 | 1.41950 | 1.31070 | 1.10150 | 1.13140 | 1.59690 | .45440 | .46530 |
| 1.294 | 26.768 | 21870 | 2010.10001 | 734.45000 | 1.32680 | 1.23760 | 1.05470 | 1.09560 | 1.56878 | .46530 | .46530 |
| 1.294 | GRADIENT | .00294 | .49201 | -.35733 | -.00269 | -.00269 | -.00442 | -.00457 | -.00065 | .00345 | -.00314 |

RUN NO. 153/ 0 RN/L = 4.21 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.402 | .082 | 1.3590 | 2049.00000 | 641.88000 | 1.69060 | 1.57160 | 1.20490 | 1.16680 | 1.62760 | .59160 | .59630 |
| 1.406 | 2.111 | 26260 | 2049.70001 | 639.66000 | 1.67760 | 1.56080 | 1.21750 | 1.17210 | 1.62970 | .59860 | .59740 |
| 1.402 | 4.222 | 23440 | 2049.00000 | 641.88000 | 1.67100 | 1.54420 | 1.22270 | 1.18050 | 1.63000 | .60620 | .58730 |
| 1.402 | 6.341 | 24140 | 2049.70001 | 642.60000 | 1.66430 | 1.53890 | 1.22890 | 1.18430 | 1.62200 | .62340 | .58110 |
| 1.393 | 8.499 | 23650 | 2049.70001 | 644.81000 | 1.64850 | 1.51830 | 1.22000 | 1.18630 | 1.61660 | .59340 | .55750 |
| 1.398 | 10.653 | 22220 | 2048.29999 | 645.98000 | 1.63370 | 1.49780 | 1.21170 | 1.18810 | 1.61130 | .58600 | .55340 |
| 1.400 | 12.813 | 22220 | 2048.29999 | 643.37000 | 1.61990 | 1.48940 | 1.20130 | 1.19130 | 1.60380 | .57440 | .52880 |
| 1.399 | 14.961 | 23760 | 2047.50000 | 644.12000 | 1.60600 | 1.45910 | 1.18580 | 1.18540 | 1.59780 | .54970 | .50720 |
| 1.399 | 17.125 | 22820 | 2048.29999 | 644.48000 | 1.57130 | 1.43950 | 1.17020 | 1.18540 | 1.59830 | .53090 | .50240 |
| 1.394 | 19.280 | 23600 | 2048.29999 | 647.05000 | 1.54260 | 1.41380 | 1.14840 | 1.17250 | 1.58600 | .54880 | .47240 |
| 1.393 | 21.433 | 19440 | 2048.29999 | 647.79000 | 1.51160 | 1.38810 | 1.13290 | 1.17250 | 1.58410 | .59120 | .48810 |
| 1.398 | 26.743 | 19990 | 2047.50000 | 644.48000 | 1.43730 | 1.32840 | 1.10240 | 1.14140 | 1.55230 | .44890 | .43010 |
| 1.398 | GRADIENT | .02342 | -.60085 | -.00272 | -.00467 | -.00416 | .00424 | .00327 | .00057 | .00349 | -.00216 |

TABULATED DATA - 0A164 (ARC 11-97-87-094)

ARC 11-97-87-084 0A161 ORBITER + TUNTS

(AE7R11) (02 AUG 75)

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 AIRRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 96/ 0 RVAL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/AP | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|--------|--------|--------|--------|
| .584 | .092 | 2.24710 | 2590.70001 | 2040.50000 | 1.08470 | 1.05180 | .97340 | .98130 | .95620 | .94600 | .95370 |
| .595 | 4.193 | 2.29470 | 2591.39999 | 2039.10001 | 1.03660 | 1.05700 | .98000 | .96850 | .96300 | .94690 | .95430 |
| .594 | 8.363 | 2.30970 | 2592.10001 | 2042.00000 | 1.03350 | 1.05290 | .97860 | .96900 | .94930 | .94690 | .95490 |
| .596 | 10.469 | 2.32010 | 2592.89999 | 2039.80000 | 1.03110 | 1.05800 | .98090 | .98090 | .94930 | .94650 | .95500 |
| .595 | 12.622 | 2.30930 | 2593.60001 | 2041.30000 | 1.02750 | 1.04290 | .98970 | .98970 | .94760 | .94650 | .95500 |
| .59E | 14.765 | 2.29170 | 2594.29999 | 2042.00000 | 1.01720 | 1.03550 | .97630 | .98420 | .94570 | .94490 | .95350 |
| .595 | 16.896 | 2.29100 | 2594.29999 | 2042.00000 | 1.00740 | 1.02560 | .96760 | .97650 | .93360 | .94280 | .95280 |
| .594 | 21.069 | 2.27770 | 2594.29999 | 2043.39999 | .96430 | 1.00260 | .95480 | .96590 | .93470 | .93700 | .95650 |
| | GRADIENT | .01160 | .17064 | -.34129 | .00046 | .00127 | .00161 | .00176 | .00062 | .00022 | .00015 |

RUN NO. 1034 0 RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/AP | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .797 | .060 | 2.26270 | 2227.20001 | 1455.00000 | 1.08150 | 1.11290 | .95340 | .98070 | .90620 | .90070 | .91530 |
| .799 | 4.251 | 2.30580 | 2229.29999 | 1465.80000 | 1.08550 | 1.11980 | .97260 | .93870 | .90780 | .90510 | .91520 |
| .797 | 8.464 | 2.31870 | 2230.70001 | 1469.70001 | 1.08860 | 1.11350 | .97550 | 1.00590 | .90120 | .90430 | .91560 |
| .799 | 10.580 | 2.32860 | 2230.70001 | 1465.30000 | 1.07560 | 1.10760 | .98300 | 1.01150 | .90330 | .90490 | .91750 |
| .797 | 12.744 | 2.31285 | 2230.70001 | 1467.39999 | 1.07310 | 1.09710 | .98600 | 1.01330 | .90260 | .90260 | .91530 |
| .798 | 14.891 | 2.32340 | 2231.39999 | 1467.39999 | 1.08290 | 1.08290 | .97240 | 1.00830 | .89950 | .89640 | .90180 |
| .797 | 17.061 | 2.33640 | 2230.70001 | 1462.10001 | 1.03740 | 1.06780 | .96490 | 1.00330 | .87910 | .88440 | .88850 |
| .794 | 21.293 | 2.31750 | 2231.39999 | 1473.10001 | .99950 | 1.02970 | .94570 | .98550 | .85440 | .89460 | .86640 |
| | GRADIENT | .04129 | .50347 | -.52445 | .00096 | .00465 | .00460 | .00432 | .00036 | .00113 | .00064 |

RUN NO. 1071 0 RVAL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/AP | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .843 | .043 | 2.26440 | 2174.89999 | 1357.30000 | 1.10260 | 1.13840 | .95274 | .98480 | .89230 | .89830 | .90230 |
| .848 | 4.243 | 2.30530 | 2175.60001 | 1368.70000 | 1.10470 | 1.14360 | .97380 | 1.00170 | .88440 | .89460 | .90680 |
| .847 | 8.477 | 2.31200 | 2177.00000 | 1360.89999 | 1.10290 | 1.13770 | .98680 | 1.02030 | .88410 | .89400 | .90700 |
| .847 | 10.598 | 2.31800 | 2177.00000 | 1361.60000 | 1.09410 | 1.12960 | .98860 | 1.02110 | .88500 | .89700 | .90480 |
| .846 | 12.762 | 2.31520 | 2177.00000 | 1363.00000 | 1.09100 | 1.11940 | .98710 | 1.02120 | .87900 | .88300 | .89370 |
| .846 | 14.935 | 2.32240 | 2177.00000 | 1363.00000 | 1.07260 | 1.10440 | .98260 | 1.02120 | .86600 | .86550 | .88340 |
| .847 | 17.084 | 2.33130 | 2177.00000 | 1362.30000 | 1.05600 | 1.09400 | .97530 | 1.01650 | .85680 | .86580 | .88340 |
| .845 | 21.335 | 2.30910 | 2177.70001 | 1365.10001 | 1.01351 | 1.04870 | .95361 | .99560 | .83250 | .83330 | .84830 |
| | GRADIENT | .00498 | .16672 | .33343 | .08050 | .00129 | .00503 | .00402 | .00062 | .00150 | .00107 |

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TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + FUFTS

(AETR11) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVOP = .000
ANLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
SPEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0380

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|---------|---------|---------|---------|---------|--------|
| .899 | .074 | 2.27510 | 2114.00000 | 1251.00000 | 1.13480 | 1.17170 | .98250 | .98770 | .67640 | .67230 | .66380 |
| .898 | 4.256 | 2.31300 | 2115.89999 | 1253.80000 | 1.13990 | 1.17360 | .98490 | 1.01020 | .87620 | .87540 | .86720 |
| .910 | 8.498 | 2.32430 | 2119.70001 | 1253.10001 | 1.13990 | 1.17030 | 1.00220 | 1.03330 | .87340 | .87000 | .86630 |
| .899 | 10.620 | 2.33320 | 2117.60001 | 1253.80000 | 1.12110 | 1.16400 | 1.00300 | 1.03800 | .87096 | .86820 | .86620 |
| .902 | 12.779 | 2.32260 | 2114.70001 | 1256.00000 | 1.11610 | 1.14490 | .99680 | 1.03660 | .86930 | .86620 | .86570 |
| .902 | 14.940 | 2.33290 | 2116.89999 | 1256.00000 | 1.10150 | 1.13640 | 1.00250 | 1.04350 | .86550 | .86350 | .85970 |
| .911 | 17.125 | 2.34430 | 2116.20001 | 1249.50000 | 1.08310 | 1.11990 | .99440 | 1.04120 | .86130 | .86050 | .85080 |
| .900 | 21.376 | 2.32550 | 2116.20001 | 1251.70000 | 1.03830 | 1.07650 | .97090 | 1.01750 | .79200 | .78460 | .80980 |
| GRADIENT | | .00905 | .69362 | .66961 | .00170 | .00045 | .0053E | .0053E | -.03005 | -.08074 | .00079 |

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| .946 | .064 | 2.24540 | 2073.00000 | 1164.80000 | 1.16690 | 1.20790 | .98390 | 1.00530 | .84360 | .83290 | .84730 |
| .948 | 4.279 | 2.29550 | 2076.50000 | 1164.10001 | 1.17790 | 1.21320 | 1.00890 | 1.03470 | .83270 | .82940 | .84960 |
| .943 | 8.532 | 2.31400 | 2075.10001 | 1169.70000 | 1.16060 | 1.20020 | 1.01860 | 1.05670 | .83590 | .83040 | .83960 |
| .944 | 10.682 | 2.31890 | 2075.79999 | 1169.00000 | 1.15410 | 1.19400 | 1.02780 | 1.06210 | .83090 | .82440 | .83330 |
| .944 | 12.845 | 2.29760 | 2075.10001 | 1169.00000 | 1.14990 | 1.18540 | 1.02480 | 1.05600 | .81820 | .80990 | .82330 |
| .946 | 14.999 | 2.30800 | 2075.79999 | 1166.89996 | 1.12970 | 1.16890 | 1.02000 | 1.05640 | .79950 | .78760 | .80720 |
| .944 | 17.200 | 2.31660 | 2074.39999 | 1169.00000 | 1.10910 | 1.14720 | 1.01260 | 1.05360 | .78810 | .77350 | .79320 |
| .942 | 21.452 | 2.29270 | 2079.00000 | 1172.50000 | 1.06300 | 1.09690 | .96870 | 1.03790 | .73650 | .73850 | .75220 |
| GRADIENT | | .01169 | .83034 | -.16507 | .00264 | .00173 | .00593 | .00697 | -.00291 | -.00083 | -.00005 |

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|---------|---------|---------|--------|---------|---------|
| .979 | .068 | 2.25750 | 2065.20001 | 1117.80000 | 1.13910 | 1.24230 | 1.00450 | 1.04090 | .76530 | .77170 | .79580 |
| .980 | 4.286 | 2.31090 | 2065.89999 | 1117.10001 | 1.20040 | 1.24650 | 1.03340 | 1.07290 | .78735 | .77620 | .79330 |
| .961 | 8.571 | 2.31510 | 2065.60001 | 1115.60001 | 1.19620 | 1.23850 | 1.04970 | 1.09130 | .77910 | .76860 | .79360 |
| .980 | 10.729 | 2.31650 | 2065.89999 | 1116.30000 | 1.18650 | 1.23080 | 1.05130 | 1.09950 | .78220 | .76570 | .78120 |
| .977 | 12.889 | 2.28910 | 2065.20001 | 1119.89999 | 1.17500 | 1.21360 | 1.04740 | 1.10070 | .76660 | .75350 | .77960 |
| .982 | 15.061 | 2.33590 | 2066.60001 | 1114.89999 | 1.16070 | 1.20150 | 1.04480 | 1.10190 | .74810 | .73230 | .75610 |
| .978 | 17.270 | 2.33750 | 2065.89999 | 1119.89999 | 1.13770 | 1.17710 | 1.03370 | 1.09390 | .74250 | .72450 | .74450 |
| .977 | 21.553 | 2.31690 | 2068.79999 | 1122.00000 | 1.08750 | 1.12490 | 1.00430 | 1.06340 | .70380 | .68020 | .70680 |
| GRADIENT | | .01266 | .6603 | -.16600 | .00031 | .00102 | .0058E | .00757 | .00547 | -.00133 | -.00012 |

(AE7R11) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-034)
ARC 11-97-87-09+ 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRQM = .000 BDELAP = -2.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0.
LREF = 474.8000 IN. YMRP = .0000 IN. Y0.
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0.
SCALE = .0300

RUN. NU. 127+ 0 RM/L = 4.26 GRADIENT INTERVAL = -5.00+ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|------------|---------|---------|---------|---------|---------|--------|---------|
| 1.051 | .073 | 2.2570 | 2041.89999 | 1014.90000 | 1.29500 | 1.33890 | 1.03120 | 1.12090 | .73030 | .71260 | .73150 |
| 1.052 | 4.295 | 2.32070 | 2040.50000 | 1012.80000 | 1.29420 | 1.34410 | 1.11210 | 1.15690 | .72890 | .71360 | .72570 |
| 1.047 | 8.590 | 2.31650 | 2038.10001 | 1019.10000 | 1.28010 | 1.32430 | 1.12160 | 1.16650 | .71990 | .70400 | .71810 |
| 1.048 | 10.751 | 2.31570 | 2044.00000 | 1020.50000 | 1.26880 | 1.31490 | 1.12490 | 1.17460 | .69130 | .67430 | .70470 |
| 1.049 | 12.921 | 2.29260 | 2041.20000 | 1017.00000 | 1.26120 | 1.29890 | 1.12010 | 1.17850 | .67830 | .67830 | .69470 |
| 1.047 | 15.098 | 2.33630 | 2041.20000 | 1019.80000 | 1.25120 | 1.27570 | 1.10940 | 1.17100 | .65580 | .65580 | .66820 |
| 1.049 | 17.330 | 2.33830 | 2041.20000 | 1017.00000 | 1.21760 | 1.25670 | 1.10090 | 1.16480 | .68540 | .68540 | .65550 |
| 1.049 | 21.626 | 2.32350 | 2041.89999 | 1030.30000 | 1.19120 | 1.19060 | 1.05530 | 1.11830 | .66840 | .64350 | .61070 |
| 1.039 | GRADIENT | .01030 | -.33163 | -.43741 | -.00019 | .00425 | .00732 | .00831 | -.00033 | .00024 | -.00137 |

RUN. NO. 139+ 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00+ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.097 | .075 | 2.26190 | 2005.10001 | 941.10000 | 1.34070 | 1.39070 | 1.12200 | 1.15930 | .70770 | .68500 | .69930 |
| 1.100 | 4.299 | 2.30110 | 2003.70000 | 938.20000 | 1.34050 | 1.39290 | 1.15190 | 1.20100 | .70520 | .68520 | .69500 |
| 1.097 | 8.588 | 2.31760 | 2005.80000 | 943.20000 | 1.32740 | 1.37300 | 1.16960 | 1.21010 | .69510 | .67330 | .67660 |
| 1.099 | 10.744 | 2.31590 | 2005.10001 | 941.80000 | 1.31140 | 1.35880 | 1.16450 | 1.25180 | .68480 | .66260 | .67800 |
| 1.096 | 12.915 | 2.30300 | 2005.80000 | 944.60000 | 1.29780 | 1.33850 | 1.15370 | 1.21630 | .66710 | .64390 | .65380 |
| 1.097 | 15.105 | 2.30300 | 2005.80000 | 944.35000 | 1.27390 | 1.31700 | 1.13960 | 1.20770 | .64740 | .62870 | .63450 |
| 1.099 | 17.337 | 2.25400 | 2007.89999 | 942.50000 | 1.26450 | 1.30280 | 1.13260 | 1.19870 | .68070 | .62830 | .62950 |
| 1.097 | GRADIENT | 2.35510 | 2005.80000 | 942.50000 | 1.25050 | 1.29100 | 1.12290 | 1.19260 | .67850 | .56370 | .59500 |
| 1.097 | | 2.33180 | 2008.60001 | 944.62000 | 1.19110 | 1.23090 | 1.05330 | 1.11820 | .65200 | .56370 | .59500 |
| 1.097 | | .00928 | -.33144 | -.65529 | -.00005 | .00052 | .00708 | .00987 | -.00059 | .00005 | -.00149 |

RUN. NO. 134+ 0 RM/L = 4.24 GRADIENT INTERVAL = -5.00+ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.150 | .067 | 2.27150 | 2003.00000 | 880.50000 | 1.36060 | 1.43140 | 1.15340 | 1.19080 | .70730 | .68300 | .69430 |
| 1.149 | 4.282 | 2.32880 | 2000.89999 | 881.78000 | 1.37620 | 1.42970 | 1.17980 | 1.22980 | .70630 | .68670 | .69100 |
| 1.147 | 8.584 | 2.32440 | 2005.50000 | 886.10000 | 1.35810 | 1.40580 | 1.19070 | 1.23780 | .69440 | .66940 | .67690 |
| 1.147 | 10.742 | 2.31840 | 2003.00000 | 883.98000 | 1.34920 | 1.39500 | 1.19290 | 1.24850 | .68440 | .66380 | .67470 |
| 1.145 | 12.921 | 2.30450 | 2001.60001 | 886.05000 | 1.33270 | 1.37190 | 1.18440 | 1.24050 | .67480 | .64900 | .65940 |
| 1.145 | 15.107 | 2.34930 | 2007.89999 | 888.90000 | 1.31130 | 1.35080 | 1.16440 | 1.20830 | .62140 | .62140 | .63210 |
| 1.147 | 17.328 | 2.35560 | 2005.10001 | 885.40000 | 1.29580 | 1.32980 | 1.10450 | 1.19500 | .66620 | .61040 | .61590 |
| 1.147 | GRADIENT | 2.32500 | 2003.70000 | 879.81000 | 1.23820 | 1.27350 | 1.03590 | 1.12920 | .65650 | .63610 | .60150 |
| 1.145 | | .01357 | -.49527 | .16135 | -.00104 | .00040 | .00622 | .01153 | -.00024 | .00088 | -.00078 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6900 IN. ZMRP = 375.0800 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = -0.000
 ATERON = .000 BOFLAP = -7.170

RUN NO. 1447 0 R/W/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.194 | .061 | 2.28330 | 1987.30000 | 829.61000 | 1.41410 | 1.46300 | 1.16800 | 1.21040 | .68310 | .63860 | .65780 |
| 1.200 | 4.278 | 2.31140 | 1999.07000 | 824.05000 | 1.40940 | 1.45730 | 1.28210 | 1.24410 | .68180 | .66270 | .65390 |
| 1.193 | 8.580 | 2.31470 | 1995.10001 | 829.58000 | 1.39150 | 1.43280 | 1.20400 | 1.24380 | .67480 | .65030 | .64620 |
| 1.194 | 10.745 | 2.31640 | 1993.80000 | 828.89000 | 1.36110 | 1.42280 | 1.17460 | 1.22300 | .66940 | .62510 | .64180 |
| 1.193 | 12.920 | 2.30170 | 1999.50000 | 832.41000 | 1.37100 | 1.42050 | 1.12700 | 1.21170 | .66290 | .61130 | .62280 |
| 1.195 | 15.100 | 2.33400 | 1989.00000 | 828.22000 | 1.35260 | 1.38440 | 1.10670 | 1.20460 | .59360 | .59340 | .59360 |
| 1.193 | 17.312 | 2.23390 | 1925.89999 | 930.30000 | 1.31920 | 1.35510 | 1.08290 | 1.19100 | .63210 | .56840 | .57650 |
| 1.195 | 21.535 | 2.31930 | 2000.20000 | 829.63000 | 1.26420 | 1.29650 | 1.03300 | 1.15490 | .56900 | .56900 | .56560 |
| GRADIENT | | .00565 | .16600 | -1.31844 | -.00111 | -.00135 | .00808 | .00799 | -.00031 | .00097 | -.00334 |

RUN NO. 1477 0 R/W/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.293 | .030 | 2.27130 | 2001.60001 | 723.75000 | 1.51050 | 1.52250 | 1.21640 | 1.23780 | .64560 | .61130 | .64250 |
| 1.299 | 4.250 | 2.33180 | 2005.10001 | 725.18000 | 1.49340 | 1.53750 | 1.16750 | 1.22920 | .64860 | .62910 | .61400 |
| 1.297 | 8.546 | 2.32840 | 2005.10001 | 726.66000 | 1.48060 | 1.51510 | 1.15580 | 1.22120 | .64420 | .62490 | .60840 |
| 1.295 | 10.742 | 2.31850 | 2005.80000 | 728.84000 | 1.46550 | 1.49570 | 1.14310 | 1.21710 | .64170 | .61820 | .58600 |
| 1.292 | 12.894 | 2.29320 | 2005.80000 | 731.63000 | 1.45100 | 1.47330 | 1.12740 | 1.21490 | .63260 | .59150 | .56980 |
| 1.296 | 15.055 | 2.33750 | 2005.80000 | 728.12000 | 1.43680 | 1.45700 | 1.11760 | 1.22180 | .56420 | .56420 | .54790 |
| 1.295 | 17.275 | 2.34300 | 2005.10001 | 728.13000 | 1.40970 | 1.43450 | 1.09290 | 1.21370 | .52780 | .52780 | .53100 |
| 1.292 | 21.567 | 2.32768 | 2007.89999 | 732.34000 | 1.39340 | 1.37880 | 1.03860 | 1.18960 | .50070 | .50070 | .50460 |
| GRADIENT | | .01433 | .86924 | .33880 | -.00408 | -.00355 | -.01159 | -.00204 | .00073 | .00256 | -.00875 |

RUN NO. 1547 0 R/W/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.399 | .021 | 2.28230 | 2056.70001 | 646.89000 | 1.61860 | 1.63910 | 1.15370 | 1.21640 | .61846 | .57750 | .61380 |
| 1.400 | 4.231 | 2.30480 | 2057.39999 | 646.88000 | 1.58780 | 1.63250 | 1.17710 | 1.23080 | .62600 | .57730 | .60840 |
| 1.396 | 8.524 | 2.31710 | 2056.70001 | 649.84000 | 1.57220 | 1.60110 | 1.17430 | 1.24370 | .62270 | .59780 | .57340 |
| 1.395 | 10.679 | 2.33440 | 2057.39999 | 649.83000 | 1.55840 | 1.58100 | 1.16140 | 1.24730 | .61460 | .59900 | .55660 |
| 1.395 | 12.865 | 2.30730 | 2058.20001 | 650.55000 | 1.54900 | 1.55910 | 1.15030 | 1.24930 | .60160 | .61650 | .53700 |
| 1.397 | 15.021 | 2.35510 | 2058.20001 | 649.81000 | 1.53000 | 1.53740 | 1.12900 | 1.25490 | .60040 | .55440 | .52460 |
| 1.399 | 17.244 | 2.34220 | 2057.39999 | 648.55000 | 1.49960 | 1.51490 | 1.10720 | 1.25750 | .56920 | .54110 | .48520 |
| 1.395 | 21.535 | 2.33320 | 2059.60001 | 651.26000 | 1.43900 | 1.46590 | 1.06400 | 1.22140 | .47950 | .47950 | .48520 |
| GRADIENT | | .00536 | .16663 | -.00238 | -.00488 | -.00162 | .00557 | .00343 | -.00181 | -.00005 | -.00319 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

(AE7R12) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 5.080 ELEVON = .000
 ATLRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | RV/L | 4.22 | GRADIENT INTERVAL | -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|---------|------------|------------|------|------|-------------------|--------|---------|---------|--------|---------|--------|--------|--------|-------|
| .597 | .101 | 5.34530 | 2592.89999 | 2037.70000 | 0 | 4.22 | -5.00/ | 5.00 | 1.01330 | 1.07640 | .96590 | .99630 | .99080 | .94310 | .95190 | |
| .596 | 4.223 | 5.37960 | 2592.89999 | 2038.10001 | 0 | 4.22 | -5.00/ | 5.00 | 1.01530 | 1.07980 | .97060 | 1.00440 | .94670 | .94280 | .95240 | |
| .595 | 8.397 | 5.38640 | 2592.89999 | 2038.80000 | 0 | 4.22 | -5.00/ | 5.00 | 1.01210 | 1.07640 | .97030 | 1.00710 | .94700 | .94320 | .95120 | |
| .594 | 10.516 | 5.37880 | 2592.89999 | 2042.00000 | 0 | 4.22 | -5.00/ | 5.00 | 1.00770 | 1.07140 | .96930 | 1.00570 | .94730 | .94320 | .95320 | |
| .595 | 12.687 | 5.38210 | 2593.60001 | 2042.00000 | 0 | 4.22 | -5.00/ | 5.00 | 1.00720 | 1.06650 | .96510 | 1.00580 | .94680 | .94350 | .94400 | |
| .595 | 14.755 | 5.37890 | 2594.29999 | 2041.30000 | 0 | 4.22 | -5.00/ | 5.00 | .99540 | 1.06050 | .96040 | .99880 | .94200 | .94780 | .94980 | |
| .597 | 16.857 | 5.37870 | 2593.60001 | 2037.70000 | 0 | 4.22 | -5.00/ | 5.00 | .98440 | 1.04960 | .95550 | .99510 | .94150 | .94600 | .94600 | |
| .595 | 21.070 | 5.38640 | 2593.60001 | 2041.30000 | 0 | 4.22 | -5.00/ | 5.00 | .96320 | 1.02740 | .94000 | .98170 | .93210 | .92100 | .93590 | |
| | | .00832 | .00001 | .33669 | | | | | .00049 | .00082 | .00136 | .00197 | .00081 | .00007 | .00012 | |

GRADIENT

| MACH | ALPHA | BETA | PT | P | RV/L | 4.22 | GRADIENT INTERVAL | -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|---------|------------|------------|------|------|-------------------|--------|---------|---------|--------|---------|--------|--------|--------|-------|
| .756 | .085 | 5.35680 | 2227.89999 | 1466.70000 | 0 | 4.22 | -5.00/ | 5.00 | 1.04210 | 1.15440 | .93390 | 1.00320 | .90410 | .89370 | .94030 | |
| .759 | 4.252 | 5.39470 | 2229.29999 | 1463.60000 | 0 | 4.22 | -5.00/ | 5.00 | 1.04650 | 1.16220 | .95290 | 1.02310 | .90380 | .90070 | .91450 | |
| .756 | 8.489 | 5.40380 | 2230.70001 | 1468.80000 | 0 | 4.22 | -5.00/ | 5.00 | 1.03980 | 1.15340 | .95600 | 1.03090 | .90220 | .89890 | .91420 | |
| .758 | 10.625 | 5.39560 | 2231.39999 | 1467.39999 | 0 | 4.22 | -5.00/ | 5.00 | 1.03580 | 1.14920 | .95760 | 1.03440 | .90120 | .90040 | .91140 | |
| .756 | 12.752 | 5.39520 | 2230.70001 | 1468.60000 | 0 | 4.22 | -5.00/ | 5.00 | 1.03250 | 1.13980 | .95420 | 1.03720 | .89520 | .89110 | .90630 | |
| .756 | 14.882 | 5.40140 | 2231.39999 | 1468.50000 | 0 | 4.22 | -5.00/ | 5.00 | 1.01280 | 1.12530 | .95010 | 1.03710 | .88370 | .88130 | .90290 | |
| .758 | 17.016 | 5.42210 | 2230.70001 | 1466.00000 | 0 | 4.22 | -5.00/ | 5.00 | 1.00180 | 1.11710 | .94630 | 1.03650 | .88340 | .87550 | .89470 | |
| .756 | 21.273 | 5.44740 | 2231.39999 | 1470.89999 | 0 | 4.22 | -5.00/ | 5.00 | .95930 | 1.07750 | .92090 | 1.02050 | .86680 | .85910 | .88490 | |
| | | .06909 | .33692 | -.69585 | | | | | .06106 | .00187 | .00456 | .00477 | .00007 | .00166 | .00101 | |

GRADIENT

| MACH | ALPHA | BETA | PT | P | RV/L | 4.24 | GRADIENT INTERVAL | -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|---------|------------|------------|------|------|-------------------|--------|---------|---------|--------|---------|--------|--------|--------|-------|
| .893 | .093 | 5.37330 | 2228.60001 | 1466.70000 | 0 | 4.24 | -5.00/ | 5.00 | 1.04160 | 1.15510 | .93380 | 1.00350 | .90260 | .89320 | .90870 | |
| .899 | 4.268 | 5.40070 | 2178.39999 | 1359.39999 | 0 | 4.24 | -5.00/ | 5.00 | 1.06030 | 1.19430 | .95150 | 1.03160 | .88860 | .88320 | .89780 | |
| .851 | 8.508 | 5.40740 | 2178.39999 | 1356.50001 | 0 | 4.24 | -5.00/ | 5.00 | 1.05820 | 1.18650 | .96350 | 1.04800 | .88820 | .89330 | .89710 | |
| .844 | 10.637 | 5.40090 | 2177.00000 | 1365.00001 | 0 | 4.24 | -5.00/ | 5.00 | 1.04880 | 1.17690 | .96070 | 1.04730 | .88620 | .88620 | .89420 | |
| .849 | 12.771 | 5.40120 | 2177.70001 | 1362.30000 | 0 | 4.24 | -5.00/ | 5.00 | 1.04780 | 1.17830 | .96400 | 1.05350 | .88210 | .87770 | .89280 | |
| .849 | 14.904 | 5.41630 | 2177.70001 | 1362.30000 | 0 | 4.24 | -5.00/ | 5.00 | 1.02970 | 1.15550 | .95960 | 1.05370 | .87000 | .86220 | .88030 | |
| .849 | 17.042 | 5.42860 | 2177.70001 | 1359.39999 | 0 | 4.24 | -5.00/ | 5.00 | 1.01310 | 1.14130 | .95390 | 1.05250 | .86620 | .86220 | .88010 | |
| .842 | 21.305 | 5.45100 | 2177.70001 | 1362.70000 | 0 | 4.24 | -5.00/ | 5.00 | .96140 | 1.09568 | .94170 | 1.03220 | .83800 | .82850 | .85910 | |
| | | .00656 | -11.95522 | -25.63928 | | | | | .00447 | .08865 | .00423 | .00671 | .00339 | .00239 | .00280 | |

(AETRI27 (02 AUG 75)

TABULATED DATA - OAI61 (ARC 11-97-87-09M)
ARC 11-97-87-09M OAI61 J'GFTER + TUFTS

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .006 BOFLAP = -7.170

REFERENCE DATA

SREF = 2600.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0500

RUN NO. 115/ 0 RVAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .898 | .084 | 3.36590 | 2114.00000 | 1251.70000 | 1.08000 | 1.29130 | 93680 | 1.01210 | .87120 | .85760 | .87450 |
| .902 | 4.275 | 5.40490 | 2117.60001 | 1249.50000 | 1.09400 | 1.23160 | 96520 | 1.04450 | .87810 | .86870 | .88580 |
| .900 | 8.514 | 5.40860 | 2119.06000 | 1253.10001 | 1.07940 | 1.28060 | 97550 | 1.06380 | .87440 | .86650 | .87270 |
| .896 | 10.655 | 5.40110 | 2114.00000 | 1255.30000 | 1.07330 | 1.21360 | 97790 | 1.06750 | .87000 | .86470 | .87770 |
| .899 | 12.787 | 5.40380 | 2116.20001 | 1253.10001 | 1.06790 | 1.20130 | 97450 | 1.07390 | .86120 | .84480 | .86490 |
| .899 | 14.921 | 5.42410 | 2114.70001 | 1253.10001 | 1.06790 | 1.18460 | 96910 | 1.07470 | .85480 | .84400 | .86220 |
| .899 | 17.070 | 5.45920 | 2116.20001 | 1253.10061 | 1.02660 | 1.16990 | 96210 | 1.07470 | .83770 | .82280 | .85040 |
| .895 | 21.345 | 5.45990 | 2116.20001 | 1257.39999 | .98010 | 1.12870 | 93580 | 1.05270 | .83310 | .79160 | .83040 |
| | GRADIENT | .00931 | .85903 | -.52496 | .00334 | .00446 | .00630 | .00773 | .00165 | .00665 | .00270 |

RUN NO. 116/ 0 RVAL = 4.29 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .952 | .094 | 5.35500 | 2076.50000 | 1159.20000 | 1.11720 | 1.27040 | 96360 | 1.04160 | .82770 | .81320 | .83430 |
| .946 | 4.294 | 5.40610 | 2073.70001 | 1165.50000 | 1.12110 | 1.27030 | 98470 | 1.06820 | .83760 | .82750 | .84340 |
| .945 | 7.706 | 5.38650 | 2074.39999 | 1166.20000 | 1.11186 | 1.26450 | 1.00160 | 1.09120 | .84960 | .84590 | .86060 |
| .942 | 10.709 | 5.43270 | 2074.39999 | 1171.70001 | 1.09890 | 1.25100 | 99770 | 1.09240 | .82740 | .81550 | .83590 |
| .943 | 12.866 | 5.38150 | 2075.79998 | 1170.39999 | 1.09650 | 1.24020 | 99680 | 1.10690 | .83280 | .81660 | .83780 |
| .948 | 14.936 | 5.41660 | 2075.10001 | 1164.10001 | 1.07690 | 1.28860 | 99330 | 1.10430 | .80890 | .80290 | .82860 |
| .947 | 17.158 | 5.41620 | 2075.79999 | 1165.50000 | 1.05910 | 1.21220 | 98470 | 1.10320 | .79170 | .78230 | .81840 |
| .945 | 21.415 | 5.43130 | 2075.10001 | 1180.89999 | .99700 | 1.15390 | 94560 | 1.06950 | .74790 | .72890 | .76120 |
| | GRADIENT | .01193 | .66665 | 1.49987 | .00093 | -.00082 | .00582 | .00629 | .00256 | .00340 | .00217 |

RUN NO. 125/ 0 RVAL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .979 | .065 | 5.37560 | 2067.39999 | 1118.50000 | 1.14200 | 1.30200 | .98110 | 1.07490 | .77670 | .76350 | .77950 |
| .979 | 4.304 | 5.40310 | 2065.20001 | 1117.80000 | 1.14390 | 1.30870 | 1.00800 | 1.10670 | .78700 | .77950 | .80670 |
| .983 | 6.450 | 5.40800 | 2075.20001 | 1116.30000 | 1.14280 | 1.30590 | 1.01800 | 1.11430 | .78030 | .77340 | .79120 |
| .979 | 8.591 | 5.40150 | 2065.89999 | 1117.80000 | 1.13760 | 1.29880 | 1.02350 | 1.12460 | .78740 | .77750 | .79580 |
| .979 | 10.756 | 5.38880 | 2067.39999 | 1117.80001 | 1.12670 | 1.28590 | 1.01900 | 1.12990 | .77860 | .77370 | .78580 |
| .977 | 12.895 | 5.39370 | 2064.50000 | 1119.89998 | 1.11700 | 1.27270 | 1.01620 | 1.13580 | .77320 | .76050 | .78580 |
| .977 | 15.059 | 5.39420 | 2067.39999 | 1121.30000 | 1.09870 | 1.25860 | 1.01290 | 1.13620 | .76570 | .74680 | .77430 |
| .979 | 17.292 | 5.41840 | 2065.20001 | 1121.39999 | 1.07790 | 1.23990 | 1.00200 | 1.13160 | .74510 | .73200 | .75330 |
| .973 | 21.504 | 5.44860 | 2065.20001 | 1125.60001 | 1.02400 | 1.19020 | .97010 | 1.10450 | .72370 | .70360 | .73330 |
| | GRADIENT | .00654 | .52135 | -.16568 | .00045 | -.00159 | .00637 | .00754 | .00244 | .00382 | .00182 |

(AE7R12) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-09A)
ARC 11-97-87-09A OA161 ORBITER + TUFIS

REFERENCE DATA

SPEF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 5.000 ELEVON = .000
AIRLON = .080 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 126 / 0 RW/L = 4.26 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| 1.064 | .094 | 5.38210 | 2042.60000 | 1016.30000 | 1.22610 | 1.40400 | 1.05170 | 1.15450 | .71828 | .69010 | .71110 |
| 1.049 | 4.321 | 5.41230 | 2039.80000 | 1016.30000 | 1.22570 | 1.40570 | 1.08040 | 1.16700 | .72280 | .70700 | .72280 |
| 1.045 | 8.613 | 5.41100 | 2044.00000 | 1025.30000 | 1.21360 | 1.38690 | 1.08950 | 1.19810 | .71050 | .68540 | .70890 |
| 1.050 | 10.785 | 5.39310 | 2040.50000 | 1015.60000 | 1.21000 | 1.38460 | 1.09400 | 1.21470 | .70750 | .68360 | .70530 |
| 1.046 | 12.934 | 5.38760 | 2042.60000 | 1021.90000 | 1.19390 | 1.36610 | 1.08500 | 1.21370 | .70260 | .67850 | .70100 |
| 1.052 | 15.096 | 5.41400 | 2041.20000 | 1014.20000 | 1.17700 | 1.35180 | 1.08140 | 1.21670 | .70210 | .67330 | .69610 |
| 1.049 | 17.258 | 5.44810 | 2040.50000 | 1017.70000 | 1.15490 | 1.32920 | 1.05430 | 1.20850 | .69780 | .67110 | .67170 |
| 1.041 | GRADIENT | 5.47040 | 2044.70000 | 1029.60000 | 1.08470 | 1.26810 | 1.02010 | 1.16720 | .65700 | .65010 | .62510 |
| | | .00714 | -.66241 | -.00001 | -.00005 | .08040 | .08673 | .08769 | .00111 | .00400 | .00277 |

RUN NO. 140 / 0 RW/L = 4.23 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.100 | .086 | 5.36820 | 2005.10000 | 939.00000 | 1.26760 | 1.46310 | 1.08570 | 1.19780 | .70350 | .67990 | .69940 |
| 1.100 | 4.324 | 5.39960 | 2004.39999 | 939.30000 | 1.26350 | 1.46300 | 1.11230 | 1.23180 | .70340 | .69330 | .69600 |
| 1.097 | 8.608 | 5.40440 | 2004.39999 | 942.49000 | 1.25050 | 1.44480 | 1.12690 | 1.24680 | .69260 | .68220 | .67990 |
| 1.103 | 10.785 | 5.38920 | 2005.80000 | 956.23000 | 1.24460 | 1.43740 | 1.13310 | 1.26210 | .69530 | .68800 | .68590 |
| 1.096 | 15.088 | 5.41000 | 2005.80000 | 943.90000 | 1.20390 | 1.39190 | 1.09190 | 1.25150 | .69540 | .66070 | .67750 |
| 1.098 | 17.255 | 5.44030 | 2004.39999 | 941.09000 | 1.17820 | 1.37250 | 1.09160 | 1.24070 | .69150 | .64630 | .66220 |
| 1.094 | GRADIENT | 5.46460 | 2008.60000 | 948.13000 | 1.11280 | 1.31170 | 1.00710 | 1.18570 | .65480 | .63450 | .61180 |
| | | .00788 | -.16616 | -.16515 | -.08094 | -.00002 | .00628 | .00802 | -.00005 | .00083 | -.00057 |

RUN NO. 135 / 0 RW/L = 4.25 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.151 | .083 | 5.37110 | 2004.39999 | 880.51000 | 1.31060 | 1.51830 | 1.11500 | 1.23470 | .69920 | .67000 | .68950 |
| 1.150 | 4.305 | 5.43180 | 2003.70000 | 881.20000 | 1.30280 | 1.51470 | 1.15220 | 1.27280 | .70240 | .68260 | .69430 |
| 1.145 | 8.614 | 5.40480 | 2006.50000 | 888.19000 | 1.28090 | 1.48300 | 1.15450 | 1.27580 | .67640 | .64170 | .66240 |
| 1.146 | 10.783 | 5.39340 | 2004.39999 | 896.09000 | 1.27520 | 1.47490 | 1.16760 | 1.28810 | .67310 | .64510 | .66280 |
| 1.145 | 12.933 | 5.40450 | 2004.39999 | 897.48000 | 1.25400 | 1.45300 | 1.16440 | 1.28550 | .67870 | .64260 | .66240 |
| 1.147 | 15.096 | 5.42050 | 2005.10000 | 885.40000 | 1.24340 | 1.44260 | 1.14170 | 1.27020 | .68520 | .64160 | .66510 |
| 1.146 | 17.250 | 5.45930 | 2005.80000 | 894.70000 | 1.21730 | 1.41690 | 1.03890 | 1.24680 | .67790 | .62760 | .64630 |
| 1.144 | GRADIENT | 5.47050 | 2010.10000 | 891.01000 | 1.15040 | 1.35890 | .96710 | 1.18940 | .64500 | .56760 | .58640 |
| | | .01436 | -.15562 | .16325 | -.00185 | -.00085 | .00880 | .00901 | .00076 | .00298 | .00114 |

ORIGINAL PAGE IS
OF POOR QUALITY.

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 476.8000 IN. YMRP = .0000 IN. YQ
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
 SCALE = .0300

BETA = 5.000 ELEVON = .080
 APLRON = .000 BDFLAP = -7.170

RUN NO. 145/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.199 | .082 | 5.38620 | 1996.60001 | 82%.04000 | 1.34290 | 1.55720 | 1.14030 | 1.27210 | .67830 | .65260 | .66900 |
| 1.195 | 4.296 | 5.40700 | 1997.30000 | 82%.74000 | 1.32710 | 1.54910 | 1.16410 | 1.29930 | .67690 | .64930 | .66800 |
| 1.196 | 8.601 | 5.41450 | 1999.50000 | 828.93000 | 1.30990 | 1.52560 | 1.16050 | 1.29690 | .66570 | .63130 | .64580 |
| 1.196 | 10.779 | 5.39780 | 1999.70000 | 828.93000 | 1.30280 | 1.51350 | 1.10050 | 1.27990 | .66120 | .62430 | .63290 |
| 1.195 | 12.927 | 5.40410 | 1998.00000 | 828.92000 | 1.30000 | 1.50000 | 1.06700 | 1.27310 | .66290 | .61940 | .63460 |
| 1.194 | 15.089 | 5.42020 | 1999.70000 | 831.01000 | 1.28400 | 1.47420 | 1.04310 | 1.26290 | .65590 | .60280 | .61910 |
| 1.196 | 17.248 | 5.43690 | 1999.70000 | 828.22000 | 1.23920 | 1.45990 | 1.02720 | 1.25270 | .64530 | .58420 | .60230 |
| 1.194 | 21.557 | 5.45950 | 2000.89399 | 831.02000 | 1.17820 | 1.40150 | .97050 | 1.22470 | .63320 | .56120 | .58700 |
| | GRADIENT | .00494 | .16613 | .16612 | -.00375 | -.00192 | .08565 | .08645 | -.00033 | -.00078 | -.00024 |

RUN NO. 146/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.299 | .068 | 5.37810 | 2005.10001 | 72%.18000 | 1.42680 | 1.65310 | 1.16570 | 1.30780 | .63430 | .59540 | .61580 |
| 1.297 | 4.276 | 5.42840 | 2005.80000 | 728.65000 | 1.40530 | 1.64450 | 1.10300 | 1.30270 | .63610 | .59870 | .62000 |
| 1.295 | 8.570 | 5.41430 | 2004.39999 | 728.13000 | 1.39150 | 1.62500 | 1.09540 | 1.30180 | .63200 | .58250 | .60230 |
| 1.291 | 10.747 | 5.41160 | 2009.10001 | 733.01000 | 1.37130 | 1.60230 | 1.07760 | 1.29990 | .62540 | .56970 | .58240 |
| 1.293 | 12.897 | 5.39810 | 2005.10001 | 730.23000 | 1.37480 | 1.58740 | 1.06350 | 1.30910 | .63120 | .56780 | .57830 |
| 1.295 | 15.051 | 5.41970 | 2005.10001 | 728.13000 | 1.34430 | 1.56680 | 1.04290 | 1.30830 | .62180 | .54680 | .56450 |
| 1.299 | 17.211 | 5.44150 | 2005.10001 | 725.92000 | 1.32170 | 1.55260 | 1.02920 | 1.31440 | .61980 | .53190 | .55180 |
| 1.292 | 21.525 | 5.46320 | 2006.50000 | 732.33000 | 1.25840 | 1.49700 | .95610 | 1.30140 | .61790 | .53450 | .53620 |
| | GRADIENT | .01195 | .16637 | .34936 | -.00487 | -.00204 | -.01490 | -.00121 | .00043 | .00078 | .00100 |

RUN NO. 155/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.399 | .051 | 5.41000 | 2056.70001 | 647.63000 | 1.52450 | 1.76610 | 1.10050 | 1.31140 | .60990 | .56640 | .58680 |
| 1.402 | 4.259 | 5.46710 | 2056.70001 | 647.68000 | 1.50430 | 1.76180 | 1.11570 | 1.31990 | .61210 | .56620 | .60160 |
| 1.397 | 8.545 | 5.42220 | 2057.39999 | 649.09000 | 1.48130 | 1.73190 | 1.10660 | 1.33950 | .61190 | .55820 | .58220 |
| 1.396 | 10.715 | 5.39750 | 2057.39999 | 649.83000 | 1.46460 | 1.71010 | 1.09100 | 1.33950 | .60830 | .56910 | .59300 |
| 1.395 | 12.856 | 5.42210 | 2057.39999 | 649.83000 | 1.45420 | 1.68680 | 1.07610 | 1.34130 | .60970 | .56480 | .54370 |
| 1.395 | 15.013 | 5.43230 | 2058.20001 | 647.60000 | 1.43360 | 1.67370 | 1.06030 | 1.35200 | .60440 | .51180 | .53330 |
| 1.395 | 17.178 | 5.46230 | 2057.39999 | 650.56000 | 1.39120 | 1.64690 | 1.03460 | 1.35970 | .59910 | .49930 | .52520 |
| 1.393 | 21.492 | 5.46730 | 2060.29999 | 648.30000 | 1.33940 | 1.59930 | .98400 | 1.34620 | .60080 | .56900 | .49410 |
| | GRADIENT | .01357 | .00001 | -.70116 | -.00480 | -.00102 | .00361 | .00202 | .00032 | .00036 | .00371 |

TABULATED DATA - 0A16J (ARC 11-97-87-09*)
ARC 11-97-87-89* 0A16J ORBITER

REFERENCE DATA

SREF = 2590.0000 SO.FT. XMRP = 1076.6800 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0500

BETA = -5.000 ELEVON = .000
AFLRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 29/ 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|--------|---------|--------|--------|--------|--------|
| .597 | .136 | -4.94520 | 2592.89999 | 2037.70000 | 1.08250 | .99680 | 1.00198 | .95800 | .95090 | .94300 | .93250 |
| .598 | 2.166 | -4.94450 | 2595.00000 | 2037.00000 | 1.08650 | .99850 | 1.00710 | .96140 | .95040 | .94520 | .93450 |
| .598 | 4.281 | -4.94220 | 2595.00000 | 2037.70000 | 1.08650 | .99850 | 1.01080 | .96400 | .94970 | .94450 | .93330 |
| .597 | 6.283 | -4.93490 | 2595.00000 | 2038.39999 | 1.08700 | .99770 | 1.01240 | .96468 | .94850 | .94370 | .93500 |
| .598 | 8.371 | -4.92270 | 2595.00000 | 2037.70000 | 1.08610 | .99620 | 1.01350 | .96400 | .94680 | .94500 | .93480 |
| .597 | 10.476 | -4.91140 | 2595.00000 | 2039.10001 | 1.08400 | .99560 | 1.01380 | .96270 | .94790 | .94500 | .93560 |
| .597 | 12.586 | -4.89440 | 2595.00000 | 2038.39999 | 1.08100 | .99540 | 1.01200 | .96180 | .94760 | .94620 | .93650 |
| .597 | 14.690 | -4.87630 | 2595.00000 | 2039.10001 | 1.07890 | .99540 | 1.00900 | .96230 | .94420 | .94520 | .93650 |
| .597 | 16.788 | -4.86170 | 2595.00000 | 2039.80000 | 1.07580 | .99510 | 1.00460 | .96300 | .94300 | .94520 | .93650 |
| .598 | 18.908 | -4.84890 | 2595.70001 | 2037.70000 | 1.07400 | .99510 | 1.00080 | .96340 | .94200 | .94600 | .93770 |
| .597 | 21.014 | -4.83810 | 2595.70001 | 2039.80000 | 1.07390 | .99300 | .99820 | .96340 | .94000 | .94600 | .93860 |
| .597 | 23.115 | -4.82870 | 2595.70001 | 2041.50000 | 1.07350 | .99150 | .99620 | .96240 | .93800 | .94720 | .94130 |
| .596 | 25.199 | -4.82070 | 2596.39999 | 2041.30000 | 1.07350 | .99030 | .99410 | .96110 | .93680 | .94680 | .94400 |
| .598 | 26.192 | -4.81450 | 2595.70001 | 2039.39999 | .99410 | .99360 | .99220 | .96010 | .93610 | .94600 | .94400 |
| GRADIENT | | .00073 | .51476 | .00044 | .00129 | .00071 | .00113 | .00147 | .00015 | .00037 | .00020 |

RUN NO. 34/ 0 RM/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .698 | .128 | -4.94620 | 2378.50000 | 1717.89999 | 1.11570 | .99780 | 1.00260 | .95980 | .93040 | .92330 | .93520 |
| .699 | 2.166 | -4.93310 | 2378.50000 | 1719.80000 | 1.12470 | 1.00030 | 1.01080 | .95980 | .93120 | .92460 | .93470 |
| .699 | 4.285 | -4.92210 | 2378.50000 | 1717.20000 | 1.12470 | 1.00190 | 1.01440 | .95930 | .93100 | .92510 | .93370 |
| .699 | 6.315 | -4.91530 | 2378.50000 | 1716.50000 | 1.12500 | 1.00120 | 1.02020 | .95870 | .93000 | .92540 | .93360 |
| .699 | 8.418 | -4.91230 | 2379.29999 | 1717.89999 | 1.12190 | .99880 | 1.02230 | .95820 | .92950 | .92560 | .93360 |
| .698 | 10.539 | -4.90950 | 2380.00000 | 1719.30000 | 1.11790 | .99140 | 1.02180 | .95820 | .92740 | .92540 | .93370 |
| .697 | 12.654 | -4.90170 | 2380.00000 | 1720.00000 | 1.11040 | .98570 | 1.02030 | .95800 | .92600 | .92580 | .93370 |
| .699 | 14.768 | -4.89970 | 2380.00000 | 1719.30000 | 1.10000 | .97800 | 1.01760 | .95780 | .92440 | .92540 | .93440 |
| .697 | 16.874 | -4.89450 | 2380.00000 | 1720.80000 | 1.08900 | .96980 | 1.01100 | .95700 | .92290 | .92540 | .93440 |
| .697 | 18.016 | -4.89100 | 2380.00000 | 1720.00000 | 1.08890 | .96450 | 1.00750 | .95610 | .92190 | .92540 | .93440 |
| .699 | 21.142 | -4.88470 | 2380.00000 | 1717.20000 | 1.08500 | .95710 | 1.00100 | .95540 | .92070 | .92440 | .93430 |
| .699 | 23.251 | -4.87940 | 2380.00000 | 1719.20000 | 1.08240 | .95070 | .99900 | .95400 | .91930 | .91060 | .93430 |
| .698 | 25.322 | -4.87400 | 2380.70001 | 1719.30000 | 1.07930 | .94620 | .99730 | .95300 | .91800 | .91060 | .93430 |
| .698 | 26.222 | -4.87000 | 2380.70001 | 1720.80000 | 1.07830 | .94370 | .99560 | .95200 | .91740 | .91060 | .93430 |
| GRADIENT | | .00145 | .00000 | -.16937 | .00129 | .00100 | .00283 | .00232 | .00015 | .00044 | .00022 |

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0380

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AILTRON = .000 BOFLAP = -7.170

RUN NO. 437 0 RWKL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .800 | 1.107 | -4.95160 | 2208.10001 | 1449.08000 | 1.16930 | 1.00680 | 1.00740 | .91090 | .90240 | .89880 | .91070 |
| .799 | 2.168 | -4.95140 | 2208.10001 | 1450.39999 | 1.17300 | 1.01110 | 1.01580 | .92670 | .90330 | .90020 | .91320 |
| .798 | 4.236 | -4.95370 | 2208.10001 | 1451.80000 | 1.17358 | 1.01130 | 1.02540 | .93550 | .90400 | .90080 | .91280 |
| .796 | 6.341 | -4.95300 | 2208.10001 | 1451.80000 | 1.17440 | 1.00820 | 1.03160 | .93920 | .90450 | .90180 | .91510 |
| .797 | 8.452 | -4.95300 | 2208.10001 | 1451.80000 | 1.17170 | 1.00610 | 1.03290 | .94330 | .90450 | .90340 | .90710 |
| .797 | 10.572 | -4.95740 | 2208.10001 | 1451.80000 | 1.16460 | .99780 | 1.03390 | .94200 | .89990 | .90050 | .91430 |
| .796 | 12.681 | -4.92110 | 2207.39999 | 1450.39999 | 1.15640 | .99350 | 1.03590 | .94290 | .89530 | .89450 | .91470 |
| .798 | 14.815 | -4.91810 | 2208.10001 | 1453.20000 | 1.14530 | .98140 | 1.03120 | .93440 | .88490 | .88200 | .90440 |
| .797 | 16.931 | -4.92250 | 2208.10001 | 1453.20000 | 1.12880 | .94100 | 1.02450 | .92540 | .87750 | .87520 | .89320 |
| .797 | 19.085 | -4.94930 | 2208.10001 | 1453.20000 | 1.10960 | .91850 | 1.01910 | .91710 | .86910 | .86440 | .88200 |
| .797 | 21.213 | -4.93910 | 2208.10001 | 1454.60001 | 1.06670 | .89470 | 1.00280 | .90260 | .86020 | .85990 | .84470 |
| .795 | 23.309 | -4.90820 | 2208.10001 | 1453.89999 | 1.04370 | .86970 | .98720 | .87900 | .82730 | .82400 | .84240 |
| .796 | 25.344 | -4.90351 | .00000 | .67790 | .00102 | .00109 | .00435 | .00378 | .00039 | .00048 | .00051 |

RUN NO. 447 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .851 | .113 | -4.97810 | 2160.00000 | 1345.89999 | 1.20200 | 1.01430 | 1.01130 | .90670 | .88490 | .88460 | .89350 |
| .848 | 2.174 | -4.95640 | 2154.29999 | 1346.00000 | 1.20360 | 1.02120 | 1.02390 | .92430 | .89100 | .88660 | .90370 |
| .847 | 4.257 | -4.94930 | 2157.20001 | 1349.50000 | 1.20350 | 1.02100 | 1.03270 | .93190 | .89150 | .88770 | .90320 |
| .846 | 6.457 | -4.93570 | 2157.89999 | 1348.80000 | 1.20240 | 1.01490 | 1.04490 | .94390 | .88970 | .88700 | .90640 |
| .847 | 8.593 | -4.92170 | 2157.89999 | 1350.20000 | 1.19560 | 1.00820 | 1.04760 | .94450 | .88270 | .88110 | .90350 |
| .848 | 10.893 | -4.92520 | 2157.89999 | 1348.80000 | 1.18660 | .99650 | 1.05080 | .94510 | .87820 | .87810 | .89350 |
| .848 | 12.714 | -4.94600 | 2157.20001 | 1347.39999 | 1.20570 | 1.01910 | 1.04350 | .94130 | .86960 | .86980 | .89350 |
| .845 | 14.834 | -4.93360 | 2155.79999 | 1351.00000 | 1.17190 | .98010 | 1.04650 | .87110 | .85640 | .85440 | .87290 |
| .845 | 16.960 | -4.94950 | 2157.89999 | 1350.89999 | 1.15690 | .96530 | 1.04450 | .85470 | .86020 | .85910 | .86140 |
| .847 | 19.122 | -4.94950 | 2157.20001 | 1348.80000 | 1.13970 | .94180 | 1.03780 | .82760 | .83440 | .83250 | .84580 |
| .846 | 21.245 | -4.94760 | 2157.20001 | 1350.89999 | 1.11580 | .91880 | 1.02940 | .81520 | .83840 | .83750 | .84040 |
| .845 | 23.337 | -4.94550 | 2156.50000 | 1351.70000 | 1.09220 | .89250 | 1.01370 | .80210 | .81280 | .81130 | .81040 |
| .846 | 25.393 | -4.90760 | 2157.20001 | 1350.20000 | 1.05490 | .86280 | .99980 | .78810 | .78690 | .78810 | .77370 |
| .846 | 25.405 | -4.89930 | 2156.50000 | 1347.39999 | 1.05140 | .84730 | .99150 | .87690 | .77490 | .77490 | .77500 |
| .846 | GRADIENT | .00563 | -.67195 | .87028 | .00036 | .00161 | .00516 | .00560 | .00159 | .00069 | .00151 |

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TABULATED DATA - OAINS1 (ARC 11-97-97-C9#)

ARC 11-97-87-89# QAI61 ORBLIER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AHLFRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SC.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8080 IN. YMRP = 375.0000 IN. YO
BREF = 956.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 54/ 0 RNAL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .903 | 1.105 | -4.97020 | 2127.50800 | 1254.50000 | 1.24220 | 1.03260 | 1.02770 | .91280 | .86470 | .85810 | .87450 |
| .901 | 2.182 | -4.98070 | 2125.79999 | 1256.60000 | 1.24440 | 1.03920 | 1.03690 | .92606 | .86460 | .87110 | .87650 |
| .900 | 4.264 | -4.97120 | 2127.50000 | 1258.00000 | 1.24370 | 1.03530 | 1.05130 | .93990 | .86690 | .87100 | .88120 |
| .901 | 6.373 | -4.95370 | 2128.20000 | 1257.30000 | 1.24800 | 1.03330 | 1.05000 | .94530 | .86430 | .86810 | .88060 |
| .933 | 8.486 | -4.94660 | 2127.50000 | 1253.50000 | 1.24210 | 1.03050 | 1.06350 | .95470 | .87340 | .87390 | .89150 |
| .930 | 10.617 | -4.94010 | 2128.20000 | 1258.78000 | 1.23600 | 1.02620 | 1.05900 | .95990 | .86120 | .86470 | .89090 |
| .960 | 12.742 | -4.92690 | 2127.50000 | 1257.30000 | 1.23020 | 1.01470 | 1.07680 | .95990 | .85860 | .86470 | .87470 |
| .960 | 14.881 | -4.93800 | 2128.20000 | 1259.78000 | 1.21310 | .97768 | 1.07250 | .95990 | .84740 | .84740 | .86280 |
| .939 | 17.012 | -4.93800 | 2127.50000 | 1259.78000 | 1.19676 | .97608 | 1.05790 | .94740 | .83670 | .83670 | .85290 |
| .897 | 19.173 | -4.95960 | 2127.50000 | 1261.60000 | 1.17360 | .95240 | 1.05900 | .93690 | .81900 | .81900 | .83450 |
| .899 | 21.302 | -4.95520 | 2128.20000 | 1260.20000 | 1.15206 | .96820 | 1.04950 | .92700 | .79770 | .79770 | .81890 |
| .930 | 23.415 | -4.95870 | 2125.79999 | 1257.30000 | 1.13060 | .90168 | 1.03796 | .91460 | .75740 | .75740 | .77490 |
| .896 | 25.486 | -4.92540 | 2128.20000 | 1263.10000 | 1.09550 | .89860 | 1.01640 | .89130 | .73210 | .73210 | .75670 |
| .899 | 26.494 | -4.87940 | 2127.50000 | 1258.70000 | 1.08370 | .84770 | 1.01310 | .89590 | .73160 | .73160 | .71750 |
| | | -.00024 | .00011 | .84162 | .00084 | .00103 | .00568 | .06530 | .00070 | .00070 | .00181 |

RUN NO. 55/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .949 | 1.119 | -4.96798 | 2085.39999 | 1169.10000 | 1.28790 | 1.05738 | 1.05110 | .92770 | .81960 | .81960 | .82510 |
| .949 | 2.197 | -4.96230 | 2084.29999 | 1167.00000 | 1.29150 | 1.06400 | 1.05790 | .94320 | .83250 | .83250 | .82400 |
| .949 | 4.294 | -4.95550 | 2085.00000 | 1167.00000 | 1.29500 | 1.05770 | 1.08290 | .95680 | .83050 | .83050 | .83630 |
| .949 | 6.410 | -4.94140 | 2085.70000 | 1168.39999 | 1.29280 | 1.05980 | 1.09070 | .96510 | .83356 | .83356 | .83750 |
| .947 | 8.531 | -4.94470 | 2085.00000 | 1169.80000 | 1.28940 | 1.05296 | 1.09158 | .97080 | .82020 | .82020 | .83610 |
| .949 | 10.663 | -4.94040 | 2085.70000 | 1169.80000 | 1.28230 | 1.04360 | 1.09890 | .97370 | .81880 | .81880 | .82630 |
| .947 | 12.802 | -4.94660 | 2085.00000 | 1171.20000 | 1.27120 | 1.03250 | 1.10240 | .97466 | .81200 | .81200 | .82220 |
| .945 | 14.945 | -4.94590 | 2085.70621 | 1170.50000 | 1.25478 | 1.01400 | 1.09950 | .97150 | .79400 | .79400 | .81850 |
| .947 | 17.098 | -4.95910 | 2085.00000 | 1169.80000 | 1.23480 | .99380 | 1.09530 | .96290 | .78400 | .78400 | .81630 |
| .947 | 19.278 | -4.94660 | 2084.29399 | 1171.20000 | 1.21600 | .96970 | 1.08730 | .95360 | .78300 | .78300 | .81600 |
| .945 | 21.325 | -4.95440 | 2084.29399 | 1171.20000 | 1.19080 | .94050 | 1.07520 | .94090 | .76400 | .76400 | .81600 |
| .946 | 23.487 | -4.94960 | 2085.70000 | 1172.60000 | 1.16256 | .90780 | 1.05786 | .91980 | .68570 | .68570 | .81600 |
| .945 | 25.558 | -4.92320 | 2085.00000 | 1173.30000 | 1.13290 | .87300 | 1.04160 | .92336 | .67670 | .67670 | .81600 |
| .948 | 26.553 | -4.91010 | 2085.70000 | 1169.80000 | 1.12210 | .85830 | 1.03830 | .89170 | .68160 | .68160 | .81600 |
| | | .00225 | -.33441 | -.50232 | .00170 | .00249 | .00762 | .00676 | .00316 | .00316 | .00316 |

ORIGINAL PAGE IS OF POOR QUALITY

TABULATED DATA - OA151 (ARC 11-97-87-094)

ARC 11-97-87-094 OA151 ORBITER

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RUN NO. 64-0 RMYL = 4.26 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|---------|---------|--------|--------|
| .981 | .113 | -4.9690 | 2075.79999 | 1120.60001 | 1.32780 | 1.08870 | 1.08030 | 0.94960 | .78250 | .77310 | .78790 |
| .979 | 2.204 | -4.95170 | 2074.39999 | 1122.70000 | 1.32680 | 1.08840 | 1.09410 | 0.95430 | .77830 | .77520 | .78290 |
| .980 | 4.303 | -4.96110 | 2075.10001 | 1121.30000 | 1.33250 | 1.08710 | 1.10810 | 0.97540 | .78060 | .77650 | .78920 |
| .979 | 6.425 | -4.95370 | 2074.39899 | 1122.70000 | 1.33020 | 1.08300 | 1.11730 | 0.98970 | .78090 | .77880 | .79010 |
| .979 | 8.555 | -4.93780 | 2076.50000 | 1124.20000 | 1.32280 | 1.07900 | 1.11930 | 0.99490 | .77360 | .77310 | .78170 |
| .978 | 10.688 | -4.92850 | 2075.10001 | 1124.20000 | 1.31540 | 1.06670 | 1.12430 | 0.99320 | .77290 | .76960 | .79150 |
| .979 | 12.844 | -4.92480 | 2075.10001 | 1122.70000 | 1.30510 | 1.05540 | 1.12820 | 0.99480 | .76520 | .76390 | .77880 |
| .977 | 15.043 | -4.93130 | 2075.79999 | 1125.60001 | 1.28990 | 1.03120 | 1.12330 | 0.98180 | .75470 | .75470 | .75930 |
| .978 | 17.149 | -4.94220 | 2075.10001 | 1124.89999 | 1.26920 | 1.01100 | 1.11850 | 0.98160 | .74330 | .73320 | .74160 |
| .977 | 19.319 | -4.96370 | 2075.10001 | 1125.60001 | 1.24670 | .98660 | 1.11020 | 0.97130 | .72910 | .71830 | .71830 |
| .976 | 21.462 | -4.94970 | 2075.10001 | 1127.70000 | 1.21970 | .95580 | 1.09560 | 0.95580 | .71340 | .70260 | .69540 |
| .977 | 23.576 | -4.94250 | 2076.50000 | 1127.00000 | 1.19240 | .92230 | 1.07960 | .95480 | .67450 | .65480 | .65480 |
| .975 | 25.645 | -4.91720 | 2075.10001 | 1128.39999 | 1.15990 | .88810 | 1.06170 | .91530 | .66240 | .65990 | .63200 |
| .979 | 26.545 | -4.87160 | 2074.39999 | 1122.70000 | 1.14780 | .87630 | 1.05484 | .90680 | .65730 | .64710 | .65140 |
| | GRADIENT | .00180 | -.16672 | .16652 | -.00107 | -.00039 | .00663 | .00616 | -.00045 | .00081 | .00031 |

RUN NO. 65-0 RMYL = 4.26 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|------------|---------|---------|---------|---------|---------|--------|--------|
| 1.049 | .126 | -4.95830 | 2040.50000 | 1017.70000 | 1.42790 | 1.16060 | 1.15840 | 1.00830 | .72190 | .70180 | .71300 |
| 1.051 | 2.210 | -4.95230 | 2038.39999 | 1014.20000 | 1.43180 | 1.16820 | 1.17600 | 1.03380 | .72790 | .71470 | .72290 |
| 1.053 | 4.316 | -4.95970 | 2041.25000 | 1012.80000 | 1.43640 | 1.16870 | 1.19100 | 1.04770 | .72000 | .70610 | .71820 |
| 1.049 | 6.436 | -4.95160 | 2038.39999 | 1015.60000 | 1.42990 | 1.15680 | 1.19910 | 1.05490 | .71760 | .70530 | .71620 |
| 1.047 | 8.570 | -4.94170 | 2040.50000 | 1018.10000 | 1.42180 | 1.14960 | 1.19760 | 1.05920 | .70950 | .69530 | .70340 |
| 1.049 | 10.721 | -4.93540 | 2041.20000 | 1019.10000 | 1.41230 | 1.13670 | 1.20170 | 1.05870 | .70390 | .68660 | .69700 |
| 1.049 | 12.672 | -4.92620 | 2038.39999 | 1016.30000 | 1.40040 | 1.12070 | 1.20560 | 1.05730 | .69710 | .68330 | .69330 |
| 1.048 | 15.041 | -4.94640 | 2040.50000 | 1017.70000 | 1.38400 | 1.09980 | 1.20010 | 1.05270 | .69090 | .67310 | .68240 |
| 1.051 | 17.204 | -4.96910 | 2039.39999 | 1014.20000 | 1.36380 | 1.07570 | 1.19430 | 1.04440 | .67320 | .66170 | .64940 |
| 1.046 | 19.374 | -4.95910 | 2039.39999 | 1019.80000 | 1.33380 | 1.04390 | 1.17800 | 1.02200 | .65910 | .62540 | .63070 |
| 1.046 | 21.533 | -4.95420 | 2043.30000 | 1022.60000 | 1.30970 | 1.00450 | 1.16300 | 1.00340 | .64790 | .61240 | .61180 |
| 1.046 | 23.664 | -4.93960 | 2042.60001 | 1024.20000 | 1.27940 | .97100 | 1.14721 | .98180 | .63170 | .58850 | .60260 |
| 1.043 | 25.735 | -4.91840 | 2040.50000 | 1024.00000 | 1.24940 | .94020 | 1.11869 | .92300 | .60650 | .53950 | .54200 |
| 1.047 | 26.756 | -4.86510 | 2042.60001 | 1020.50000 | 1.22580 | .93130 | 1.10840 | .89800 | .55370 | .51260 | .55230 |
| | GRADIENT | .00204 | .16936 | -.16643 | .00203 | .00195 | .00785 | .00940 | -.00046 | .00078 | .00024 |

TABLATED DATA - OAS1 (ARC 11-97-87-09H)
ARC 11-97-87-09H OAS1 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AIRLON = .000 BOFLAP = -7.170

RUN NO. 74/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.100 | .091 | 5.38610 | 2014.30000 | 943.28000 | 1.25080 | 1.44540 | 1.08510 | 1.16740 | .70470 | .68150 | .69870 |
| 1.101 | 2.207 | -4.96320 | 2014.30000 | 942.58000 | 1.49040 | 1.19400 | 1.21830 | 1.04980 | .70600 | .69690 | .68770 |
| 1.100 | 4.310 | -4.98440 | 2015.70000 | 943.99000 | 1.49430 | 1.18960 | 1.23170 | 1.06070 | .70140 | .68580 | .68440 |
| 1.100 | 6.435 | -4.93690 | 2015.00000 | 943.28000 | 1.49080 | 1.18270 | 1.24230 | 1.07560 | .69860 | .68160 | .67930 |
| 1.098 | 8.568 | -4.94820 | 2014.30000 | 945.37000 | 1.47950 | 1.17010 | 1.24260 | 1.09080 | .69030 | .67000 | .66360 |
| 1.092 | 10.721 | -4.93980 | 2015.70000 | 945.38000 | 1.46930 | 1.15610 | 1.24500 | 1.08850 | .68720 | .66150 | .65150 |
| 1.092 | 12.873 | -4.92200 | 2015.00000 | 944.67000 | 1.45230 | 1.13620 | 1.24370 | 1.08920 | .67930 | .65060 | .63520 |
| 1.100 | 15.046 | -4.94060 | 2015.70000 | 944.68000 | 1.43640 | 1.11250 | 1.23860 | 1.07880 | .67940 | .65060 | .63410 |
| 1.100 | 17.269 | -4.94980 | 2015.70000 | 944.68000 | 1.41450 | 1.08370 | 1.22440 | 1.06760 | .67940 | .63440 | .61960 |
| 1.100 | 19.382 | -4.97300 | 2015.70000 | 944.68000 | 1.38730 | 1.04940 | 1.19800 | .96790 | .65750 | .63440 | .58960 |
| 1.100 | 21.531 | -4.95440 | 2015.00000 | 944.68000 | 1.36090 | 1.01900 | 1.17840 | .94110 | .64558 | .63440 | .59320 |
| 1.099 | 23.661 | -4.95810 | 2015.70000 | 945.39000 | 1.32800 | .99960 | 1.14520 | .91190 | .63130 | .62690 | .58230 |
| 1.089 | 25.769 | -4.93600 | 2016.39999 | 945.39000 | 1.29770 | .96860 | 1.12440 | .87190 | .62690 | .55020 | .54960 |
| 1.094 | 26.783 | -4.88800 | 2013.60001 | 946.06000 | 1.28460 | .95680 | 1.11970 | .84590 | .61310 | .53570 | .53570 |
| 1.094 | GRADIENT | -2.46840 | .33148 | .16779 | .05777 | -.06069 | .03477 | -.02532 | -.00078 | .00102 | -.00359 |

RUN NO. 754 0 RN/L = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.148 | .121 | -4.99490 | 2007.60001 | 882.58000 | 1.54610 | 1.21690 | 1.24440 | 1.06570 | .70020 | .67800 | .67800 |
| 1.149 | 2.193 | -4.97270 | 2003.70000 | 882.60000 | 1.54910 | 1.21560 | 1.25900 | 1.07020 | .69690 | .67710 | .67940 |
| 1.148 | 4.293 | -4.96780 | 2003.00000 | 883.29000 | 1.54360 | 1.20690 | 1.26760 | 1.07920 | .69170 | .67900 | .68080 |
| 1.147 | 6.423 | -4.94950 | 2003.00000 | 884.68000 | 1.53780 | 1.19380 | 1.27580 | 1.09160 | .68940 | .67130 | .67290 |
| 1.147 | 8.561 | -4.93970 | 2004.39999 | 885.39000 | 1.52860 | 1.18320 | 1.26970 | 1.09580 | .68460 | .67350 | .64570 |
| 1.147 | 10.714 | -4.9270 | 2003.78000 | 884.69000 | 1.52050 | 1.17169 | 1.27560 | 1.09470 | .67930 | .65290 | .64330 |
| 1.146 | 12.868 | -4.93410 | 2003.00000 | 885.38000 | 1.50250 | 1.15810 | 1.27480 | 1.08040 | .67970 | .64980 | .64060 |
| 1.148 | 15.043 | -4.94330 | 2004.39999 | 884.68000 | 1.48640 | 1.14980 | 1.24860 | 1.06450 | .66990 | .64010 | .62730 |
| 1.148 | 17.204 | -4.96770 | 2004.39999 | 881.21000 | 1.47200 | 1.13040 | 1.23380 | .98810 | .66620 | .64320 | .63960 |
| 1.148 | 19.380 | -4.97840 | 2005.10001 | 884.68000 | 1.44830 | 1.06810 | 1.19560 | .95320 | .64950 | .63100 | .60510 |
| 1.148 | 21.531 | -4.96570 | 2005.10001 | 884.68000 | 1.41320 | 1.04580 | 1.17810 | .94720 | .63710 | .61400 | .57790 |
| 1.149 | 23.664 | -4.95420 | 2003.00000 | 884.68000 | 1.39430 | 1.01940 | 1.15350 | .93390 | .62950 | .56640 | .56230 |
| 1.149 | 25.770 | -4.94540 | 2003.00000 | 881.90000 | 1.35080 | .99580 | 1.13870 | .92640 | .61990 | .53470 | .53470 |
| 1.150 | 26.806 | -4.91030 | 2004.39999 | 891.21000 | 1.33140 | .98070 | 1.12940 | .91800 | .61430 | .51520 | .51520 |
| 1.150 | GRADIENT | .00648 | .33331 | .17039 | -.00068 | -.00240 | .00365 | -.00562 | -.00024 | .00024 | -.00057 |

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 1076.6880 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6880 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0380

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|--------|
| 1.202 | .102 | -4.95080 | 2006.50000 | 824.81000 | 1.61480 | 1.26450 | 1.28580 | 1.07720 | .67300 | .64550 | .64330 |
| 1.202 | 2.182 | -4.95000 | 2009.39999 | 826.82000 | 1.60990 | .25640 | .29580 | 1.09160 | .67080 | .64600 | .64830 |
| 1.203 | 4.280 | -4.97050 | 2007.89999 | 824.82000 | 1.60720 | 1.25130 | 1.31060 | 1.10390 | .67270 | .64890 | .64830 |
| 1.202 | 6.411 | -4.96146 | 2009.39999 | 826.22000 | 1.60130 | 1.24320 | 1.31440 | 1.10330 | .66860 | .64740 | .64900 |
| 1.200 | 8.553 | -4.94470 | 2007.20000 | 827.59000 | 1.59320 | 1.23010 | 1.30290 | 1.07570 | .62990 | .62060 | .61070 |
| 1.201 | 10.707 | -4.94370 | 2008.60001 | 827.60000 | 1.58330 | 1.21480 | 1.29380 | 1.02960 | .65270 | .63840 | .62560 |
| 1.201 | 12.864 | -4.92590 | 2009.39999 | 827.61000 | 1.56820 | 1.19380 | 1.27400 | 1.00930 | .64910 | .63400 | .62170 |
| 1.192 | 15.040 | -4.95350 | 2007.89999 | 828.99000 | 1.55890 | 1.17020 | 1.25230 | 1.00030 | .64550 | .62940 | .61700 |
| 1.198 | 17.199 | -4.95490 | 2009.39999 | 831.08000 | 1.54960 | 1.14598 | 1.23210 | .98110 | .64200 | .62540 | .61300 |
| 1.199 | 19.371 | -4.97560 | 2007.20000 | 829.66000 | 1.53650 | 1.11920 | 1.21830 | .95940 | .63840 | .62100 | .60900 |
| 1.197 | 21.516 | -4.97100 | 2007.89999 | 831.77000 | 1.48110 | 1.09240 | 1.19840 | .95520 | .63500 | .61760 | .60520 |
| 1.197 | 23.661 | -4.96730 | 2008.60001 | 831.77000 | 1.44740 | 1.06680 | 1.17850 | .94250 | .63160 | .61420 | .60180 |
| 1.193 | 25.779 | -4.95320 | 2008.60001 | 836.95000 | 1.40910 | 1.03150 | 1.15850 | .91730 | .62800 | .61080 | .59820 |
| 1.193 | 26.808 | -4.92480 | 2007.89999 | 830.38000 | 1.39990 | 1.02110 | 1.15670 | .90490 | .62460 | .60740 | .59480 |
| 1.198 | GRADIENT | -.00233 | .33361 | -.00145 | -.00182 | -.00346 | .00554 | .00639 | -.00007 | .00280 | .00120 |

RUN NO. 84/ Q RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|--------|---------|---------|
| 1.297 | .100 | -5.00880 | 2005.10001 | 726.66000 | 1.72640 | 1.33470 | 1.33910 | 1.10240 | .63340 | .60500 | .60240 |
| 1.297 | 2.166 | -4.98080 | 2004.39999 | 725.93000 | 1.72620 | 1.32808 | 1.34760 | 1.06290 | .63060 | .60300 | .60300 |
| 1.297 | 4.256 | -5.01570 | 2004.39999 | 725.67000 | 1.72380 | 1.31580 | 1.34910 | 1.02900 | .63440 | .60590 | .60100 |
| 1.295 | 6.381 | -4.95680 | 2005.10001 | 728.13000 | 1.71850 | 1.30390 | 1.32030 | 1.03061 | .63310 | .61670 | .59170 |
| 1.295 | 8.517 | -4.97320 | 2005.10001 | 728.83000 | 1.70950 | 1.28460 | 1.30000 | 1.02490 | .62690 | .61720 | .57640 |
| 1.294 | 10.672 | -4.95510 | 2005.10001 | 729.53000 | 1.69990 | 1.26060 | 1.30040 | 1.01790 | .61790 | .60850 | .58550 |
| 1.294 | 12.822 | -4.92100 | 2005.10001 | 729.53000 | 1.68490 | 1.24050 | 1.30090 | 1.01790 | .61570 | .60250 | .58250 |
| 1.293 | 14.995 | -4.96370 | 2005.10001 | 730.23000 | 1.67390 | 1.22180 | 1.29090 | .99760 | .60790 | .59560 | .57510 |
| 1.293 | 17.157 | -4.96760 | 2005.10001 | 730.23000 | 1.64300 | 1.20430 | 1.27510 | .99260 | .60240 | .59020 | .49860 |
| 1.293 | 19.327 | -4.98820 | 2005.10001 | 730.23000 | 1.62060 | 1.17720 | 1.26340 | .97980 | .59670 | .58080 | .50920 |
| 1.292 | 21.475 | -4.98860 | 2005.10001 | 731.62000 | 1.58910 | 1.15310 | 1.24760 | .96670 | .59650 | .57100 | .50830 |
| 1.294 | 23.617 | -4.96120 | 2005.80000 | 729.54000 | 1.55860 | 1.11860 | 1.23200 | .94290 | .57230 | .50730 | .47590 |
| 1.294 | 25.746 | -4.93360 | 2006.50000 | 729.54000 | 1.52590 | 1.08990 | 1.22440 | .93576 | .57280 | .47080 | .49620 |
| 1.293 | 26.796 | -4.93970 | 2005.10001 | 730.23000 | 1.51090 | 1.07940 | 1.21870 | .89610 | .56510 | .47940 | .47940 |
| 1.293 | GRADIENT | -.00183 | -.16810 | -.00311 | -.00063 | -.00455 | .00210 | -.01766 | .00238 | -.00238 | -.00034 |

RUN NO. 85/ Q RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - 0A161 (ARC 11-97-87-084)
 ARC 11-97-87-084 ORBIT ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = -0.000
 AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XG
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 94/ 0 RW/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|-----------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.403 | .074 | -4.9770 | 2070.2000 | 648.10000 | 1.86740 | 1.41280 | 1.35190 | 1.04250 | .61170 | .56900 | .57670 |
| 1.404 | 2.146 | -5.01400 | 2068.5000 | 646.64000 | 1.86350 | 1.40760 | 1.34680 | 1.04980 | .61130 | .57050 | .57410 |
| 1.402 | 4.235 | -5.01220 | 2069.5000 | 648.12000 | 1.86220 | 1.39640 | 1.35270 | 1.05480 | .61080 | .56920 | .57180 |
| 1.398 | 6.362 | -4.98600 | 2073.2000 | 651.06000 | 1.84810 | 1.37100 | 1.34970 | 1.05330 | .61070 | .56770 | .56350 |
| 1.400 | 8.497 | -4.95360 | 2070.2000 | 650.32000 | 1.84820 | 1.35470 | 1.34460 | 1.05070 | .60980 | .56480 | .56540 |
| 1.400 | 10.648 | -4.95000 | 2070.2000 | 651.79000 | 1.83450 | 1.33340 | 1.34210 | 1.05070 | .60380 | .57720 | .52810 |
| 1.399 | 12.794 | -4.92250 | 2070.2000 | 651.79000 | 1.81450 | 1.30660 | 1.34120 | 1.05750 | .59350 | .59930 | .51550 |
| 1.398 | 14.960 | -4.95700 | 2070.2000 | 652.53000 | 1.80490 | 1.28120 | 1.32260 | 1.02530 | .58420 | .56120 | .48140 |
| 1.398 | 17.126 | -4.97640 | 2070.2000 | 652.53000 | 1.76880 | 1.26220 | 1.32160 | 1.01250 | .58250 | .54430 | .48070 |
| 1.397 | 19.393 | -4.98350 | 2070.2000 | 653.27000 | 1.74390 | 1.24040 | 1.31470 | 1.00190 | .58760 | .52230 | .46470 |
| 1.393 | 21.461 | -5.00530 | 2070.8999 | 652.52000 | 1.71410 | 1.21130 | 1.30670 | .98780 | .57130 | .48440 | .50300 |
| 1.400 | 23.605 | -4.93460 | 2070.8999 | 651.04000 | 1.68440 | 1.18570 | 1.30310 | .95690 | .56680 | .49560 | .49360 |
| 1.393 | 25.736 | -4.93050 | 2070.8999 | 652.52000 | 1.54330 | 1.15720 | 1.28620 | .93230 | .55480 | .43900 | .47590 |
| 1.393 | 26.786 | -4.93930 | 2070.2000 | 651.79000 | 1.62890 | 1.14670 | 1.28400 | .91270 | .42660 | .42660 | .45570 |
| | GRADIENT | -.00828 | -.16802 | .00580 | -.00125 | -.00394 | .00020 | .00296 | -.00027 | -.00026 | .00027 |

RUN NO. 321/ 0 RW/L = 3.03 GRADIENT INTERVAL = -3.00/ 5.00

| MACH. | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|-----------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.556 | .019 | -5.61910 | 1499.3999 | 376.44000 | 2.05185 | 1.50360 | 1.37620 | 1.04280 | .57310 | .56460 | .56910 |
| 1.556 | 2.016 | -5.61980 | 1500.1000 | 376.62000 | 2.05300 | 1.49080 | 1.38740 | 1.04940 | .57550 | .56650 | .54770 |
| 1.556 | 4.095 | -5.62010 | 1500.9000 | 376.80000 | 2.05110 | 1.48120 | 1.39380 | 1.05320 | .57430 | .56300 | .56030 |
| 1.556 | 6.170 | -5.61780 | 1499.3999 | 376.44000 | 2.04590 | 1.46680 | 1.40990 | 1.05270 | .57600 | .56420 | .55000 |
| 1.556 | 8.243 | -5.61820 | 1500.8000 | 376.80000 | 2.03540 | 1.45190 | 1.41780 | 1.06210 | .56860 | .56150 | .52960 |
| 1.556 | 10.312 | -5.61750 | 1502.2000 | 377.15000 | 2.02220 | 1.43650 | 1.40930 | 1.06480 | .56880 | .54140 | .51830 |
| 1.556 | 12.359 | -5.61750 | 1507.2000 | 379.39000 | 2.00120 | 1.41300 | 1.39850 | 1.05760 | .56900 | .50990 | .50730 |
| 1.556 | 14.448 | -5.62080 | 1510.0000 | 379.10000 | 1.97760 | 1.39730 | 1.39150 | 1.05830 | .56130 | .50220 | .48020 |
| 1.556 | 16.597 | -5.62030 | 1512.1000 | 379.64000 | 1.95740 | 1.36990 | 1.38010 | 1.04340 | .53070 | .48390 | .47120 |
| 1.556 | 18.691 | -5.62210 | 1514.3000 | 380.17000 | 1.94430 | 1.34430 | 1.37360 | 1.02860 | .53170 | .46810 | .46810 |
| 1.556 | 20.726 | -5.61970 | 1513.6000 | 379.69000 | 1.90230 | 1.31740 | 1.36820 | 1.00010 | .52610 | .50060 | .47960 |
| 1.556 | 22.805 | -5.61830 | 1512.8999 | 379.81000 | 1.86490 | 1.30010 | 1.36690 | .97300 | .49320 | .46480 | .46820 |
| 1.556 | 24.873 | -5.61260 | 1513.6000 | 379.93000 | 1.83700 | 1.27550 | 1.35700 | .96650 | .44210 | .44770 | .44770 |
| 1.556 | 25.933 | -5.61240 | 1514.2000 | 380.17000 | 1.82340 | 1.26360 | 1.37450 | .96530 | .46310 | .42600 | .43410 |
| | GRADIENT | -.00024 | -.34322 | .00830 | -.00018 | -.00549 | .00431 | .00230 | -.00029 | -.00040 | .00274 |

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TABULATED DATA - 0A161 (ARC 11-97-87-89A)

ARC 11-97-87-89A 0A161 ORBITER

(AETRI3) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LPEF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -5.000 ELEVON = .000
AILRON = .000 EDIFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.750 | .057 | -5.44710 | 1648.60001 | 309.45000 | 2.34420 | 1.65470 | 1.47210 | 1.07460 | 5.2970 | 50.330 | 48810 |
| 1.750 | 2.014 | -5.44800 | 1649.60001 | 309.45000 | 2.34950 | 1.64260 | 1.46250 | 1.08490 | 5.3540 | 51.320 | 48570 |
| 1.750 | 4.055 | -5.44920 | 1649.39999 | 309.58000 | 2.34190 | 1.63380 | 1.45840 | 1.09380 | 5.3190 | 51.370 | 48650 |
| 1.750 | 6.094 | -5.45230 | 1650.10001 | 309.72000 | 2.32700 | 1.62520 | 1.50440 | 1.09710 | 5.3170 | 52.940 | 49730 |
| 1.750 | 8.139 | -5.45080 | 1650.10001 | 309.72000 | 2.31580 | 1.61430 | 1.49630 | 1.10750 | 5.3010 | 53.160 | 49120 |
| 1.750 | 12.181 | -5.44960 | 1650.10001 | 309.72000 | 2.28360 | 1.58210 | 1.49280 | 1.09930 | 5.1130 | 55.140 | 47580 |
| 1.750 | 14.235 | -5.44610 | 1648.39999 | 309.58000 | 2.26380 | 1.55470 | 1.49280 | 1.08560 | 4.9110 | 49.110 | 45040 |
| 1.750 | 16.338 | -5.44610 | 1648.60001 | 309.45000 | 2.24080 | 1.54300 | 1.49850 | 1.07970 | 4.9000 | 44.900 | 44910 |
| 1.750 | 18.413 | -5.44670 | 1649.39999 | 309.58000 | 2.21310 | 1.51350 | 1.50320 | 1.05700 | 4.9200 | 45880 | 45880 |
| 1.750 | 20.401 | -5.44450 | 1649.39999 | 309.58000 | 2.17970 | 1.49190 | 1.50790 | 1.03660 | 4.3670 | 43670 | 43670 |
| 1.750 | 22.455 | -5.44160 | 1650.10001 | 309.72000 | 2.15000 | 1.45810 | 1.49460 | 1.02100 | 4.6030 | 42880 | 43600 |
| 1.750 | 24.472 | -5.43970 | 1649.39999 | 309.58000 | 2.12230 | 1.42410 | 1.51020 | .99510 | 4.3460 | 41190 | 41430 |
| 1.750 | 27.464 | -5.43630 | 1649.39999 | 309.58000 | 2.09970 | 1.39270 | 1.50220 | .96480 | 4.260 | 39820 | 39670 |
| | GRADIENT | -.00027 | .20148 | .03274 | -.00184 | -.00522 | .00563 | .00460 | .00033 | .00239 | .00161 |

RUN NO. 330 / 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00 / 5.00

RUN NO. 331 / 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.997 | .044 | -5.97670 | 1809.89999 | 232.51000 | 2.79450 | 1.81100 | 1.64500 | 1.09880 | 4.6840 | 44.050 | 42410 |
| 1.997 | 1.915 | -5.97770 | 1809.50000 | 232.33000 | 2.77560 | 1.81290 | 1.68230 | 1.11480 | 4.6500 | 43620 | 41940 |
| 1.997 | 3.849 | -5.97930 | 1809.20000 | 232.42000 | 2.77740 | 1.80240 | 1.65390 | 1.11930 | 4.6150 | 43920 | 40340 |
| 1.997 | 5.975 | -5.99320 | 1814.10001 | 233.05000 | 2.76790 | 1.79150 | 1.67000 | 1.12960 | 4.6320 | 43710 | 41420 |
| 1.997 | 7.991 | -5.97920 | 1809.20000 | 231.78000 | 2.75990 | 1.78270 | 1.68350 | 1.13850 | 4.5360 | 44600 | 42070 |
| 1.997 | 9.999 | -5.97770 | 1809.20000 | 232.42000 | 2.74270 | 1.76940 | 1.69260 | 1.13290 | 4.4580 | 45190 | 41600 |
| 1.997 | 11.958 | -5.97680 | 1809.89999 | 232.51000 | 2.72820 | 1.74820 | 1.69270 | 1.12330 | 4.3940 | 46290 | 40820 |
| 1.997 | 13.959 | -5.97470 | 1809.20000 | 232.42000 | 2.71280 | 1.72830 | 1.69940 | 1.11320 | 4.2420 | 47230 | 39390 |
| 1.997 | 16.007 | -5.97120 | 1809.20000 | 232.42000 | 2.68210 | 1.69800 | 1.67970 | 1.10080 | 4.2670 | 47930 | 40510 |
| 1.997 | 18.029 | -5.96970 | 1809.89999 | 232.51000 | 2.65420 | 1.68280 | 1.67220 | 1.08740 | 4.2820 | 4820 | 41120 |
| 1.997 | 20.015 | -5.96990 | 1815.60001 | 233.24000 | 2.62650 | 1.65260 | 1.67920 | 1.07630 | 3.9830 | 36220 | 41120 |
| 1.997 | 22.033 | -5.96600 | 1815.60001 | 233.24000 | 2.56310 | 1.60870 | 1.67920 | 1.06020 | 3.6580 | 35710 | 38290 |
| 1.997 | 24.034 | -5.96440 | 1815.60001 | 233.24000 | 2.48180 | 1.55560 | 1.73980 | 1.02460 | 3.010 | 34650 | 35190 |
| 1.997 | 27.972 | -5.96390 | 1815.60001 | 233.24000 | 2.46540 | 1.52300 | 1.71700 | 1.0190 | 3.6230 | 33670 | 33660 |
| | GRADIENT | -.00080 | -.17165 | -.02207 | -.00430 | -.00225 | .00465 | .00541 | -.00177 | .00738 | -.00534 |

RUN NO. 331 / 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00 / 5.00

(AETR13) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-094 0A161 ORBITIER

REFERENCE DATA.

SREF = 2690.0000 SQ.FT. XMRP = 1675.6800 IN. XG
LREF = 474.6800 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .03000

RUN NO. 3497 0 RNAL = 3.03 GRADIENT INTERVAL = -5.004 5.00

BETA = -5.000 ELEVON = .000
AFLTRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | -.138 | -6.07330 | 1959.10001 | 169.51000 | 3.31210 | 2.02890 | 1.78910 | 1.14850 | 4.4100 | 4.0480 | .39100 |
| 2.250 | 1.844 | -6.07310 | 1960.60001 | 169.63000 | 3.31520 | 2.02480 | 1.78430 | 1.15630 | 4.2940 | 3.9410 | .37510 |
| 2.250 | 3.902 | -6.07220 | 1961.30000 | 169.70000 | 3.31340 | 2.02090 | 1.82100 | 1.15850 | 4.2480 | 3.9290 | .36950 |
| 2.250 | 5.957 | -6.07170 | 1961.30000 | 169.70000 | 3.29950 | 2.00198 | 1.85210 | 1.16160 | 4.3390 | 4.2970 | .37970 |
| 2.250 | 8.009 | -6.07160 | 1961.30000 | 169.70000 | 3.25250 | 1.97730 | 1.85810 | 1.16120 | 4.1010 | 4.1120 | .35970 |
| 2.250 | 10.062 | -6.06970 | 1960.60001 | 169.63000 | 3.28420 | 1.96430 | 1.86540 | 1.15710 | 3.9240 | 3.9030 | .35410 |
| 2.250 | 11.093 | -6.06720 | 1960.60001 | 169.63000 | 3.17500 | 1.90670 | 1.86230 | 1.14800 | 3.7200 | 3.1880 | .32310 |
| 2.250 | 14.179 | -6.06550 | 1960.60001 | 169.63000 | 3.20680 | 1.89070 | 1.87060 | 1.14700 | 3.7130 | 3.1280 | .32450 |
| 2.250 | 16.297 | -6.06470 | 1960.60001 | 169.63000 | 3.16990 | 1.89200 | 1.86560 | 1.14350 | 3.7790 | 3.2460 | .33680 |
| 2.250 | 18.375 | -6.06370 | 1961.30000 | 169.70000 | 3.11960 | 1.86990 | 1.88270 | 1.13410 | 3.6850 | 3.2590 | .34180 |
| 2.250 | 20.387 | -6.06300 | 1960.60001 | 169.63000 | 3.06570 | 1.82940 | 1.88880 | 1.12270 | 3.6440 | 3.0120 | .35650 |
| 2.250 | 22.460 | -6.05730 | 1960.60001 | 169.63000 | 3.00530 | 1.87930 | 1.87930 | 1.10780 | 3.4480 | 2.9800 | .32050 |
| 2.250 | 24.511 | -6.05530 | 1960.60001 | 169.63000 | 2.94540 | 1.73680 | 1.85480 | 1.06160 | 3.3430 | 2.9500 | .30260 |
| 2.250 | 25.529 | -6.05420 | 1960.60001 | 169.63000 | 2.91510 | 1.70680 | 1.84610 | 1.03660 | 3.2920 | 2.9300 | .30260 |
| 2.250 | GRADIENT | .00027 | .94320 | .04694 | .00031 | -.00188 | .00795 | .00247 | -.06400 | -.06292 | -.00630 |

RUN NO. 416/ 0 RNAL = 1.99 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | .103 | -4.91250 | 1429.39999 | 83.83200 | 3.89420 | 2.25380 | 1.99950 | 1.18980 | 4.7120 | 4.6940 | .36940 |
| 2.499 | 2.136 | -4.91100 | 1432.89999 | 84.04000 | 3.86330 | 2.24940 | 2.00010 | 1.20130 | 4.6380 | 3.6240 | .35390 |
| 2.499 | 4.174 | -4.90200 | 1432.20000 | 83.93000 | 3.84260 | 2.24270 | 2.02710 | 1.21130 | 4.5040 | 3.4950 | .34059 |
| 2.499 | 6.205 | -4.97870 | 1432.20000 | 83.93000 | 3.84450 | 2.22880 | 2.02580 | 1.21750 | 4.4600 | 3.9100 | .34030 |
| 2.499 | 8.249 | -4.99270 | 1432.82999 | 84.04000 | 3.81050 | 2.21050 | 2.04540 | 1.21360 | 4.3060 | 3.5440 | .29000 |
| 2.499 | 10.293 | -5.00160 | 1434.30000 | 84.12000 | 3.75000 | 2.18410 | 2.05530 | 1.20580 | 4.3060 | 2.9930 | .29930 |
| 2.499 | 12.333 | -5.00950 | 1437.20000 | 84.25000 | 3.78120 | 2.19670 | 2.10200 | 1.22450 | 4.1020 | 3.0500 | .30500 |
| 2.499 | 14.369 | -5.02000 | 1438.60001 | 84.37200 | 3.71870 | 2.16360 | 2.08600 | 1.20330 | 3.9410 | 2.9640 | .30380 |
| 2.499 | 16.411 | -5.02800 | 1440.70000 | 84.49600 | 3.67660 | 2.13450 | 2.09030 | 1.19410 | 3.7790 | 2.9640 | .28750 |
| 2.499 | 18.457 | -5.02210 | 1440.00000 | 84.49600 | 3.61890 | 2.10910 | 2.09150 | 1.17930 | 3.5770 | 2.9090 | .27580 |
| 2.499 | 20.493 | -4.99160 | 1442.60000 | 84.62000 | 3.56680 | 2.04200 | 2.06300 | 1.15200 | 3.3570 | 2.5030 | .26370 |
| 2.499 | 22.543 | -4.97910 | 1441.35399 | 84.53000 | 3.48290 | 2.00380 | 2.05700 | 1.14750 | 3.3540 | 2.490 | .27230 |
| 2.499 | 24.577 | -4.95040 | 1442.10001 | 84.57900 | 3.41970 | 1.95000 | 2.07670 | 1.13040 | 3.4350 | 2.9960 | .26990 |
| 2.499 | 25.602 | -4.95000 | 1442.10001 | 84.57900 | 3.36950 | 1.95000 | 2.05750 | 1.10700 | 3.2680 | 2.4480 | .27680 |
| 2.499 | GRADIENT | -.01171 | .68729 | .04075 | -.00289 | -.00273 | .00678 | .00528 | -.00511 | -.00243 | -.00710 |

(AETMP3) (02 AUG 78)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITIER

REFERENCE DATA

SPEC = 2690.0000 SO.FT. XMRP = 1076.6899 IN. X0
 LREF = 474.6000 IN. YMRP = 0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0090 IN. Z0
 SCALE = .0300

BETA =
 AILRON =
 ELEVON = .000
 EDFLAP = -7.173

PARAMETRIC DATA

| MACH | ALPHA | BETA | FT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .003 | -4.87920 | 1976.80000 | 50.71900 | 5.03520 | 2.75170 | 2.37400 | 1.25350 | .46470 | .32130 | .37430 |
| 3.040 | 2.033 | -4.90400 | 1976.80000 | 50.71900 | 5.01750 | 2.74020 | 2.37230 | 1.25820 | .41730 | .27370 | .26670 |
| 3.040 | 4.059 | -4.92480 | 1976.80000 | 50.70100 | 5.02240 | 2.74080 | 2.39440 | 1.28510 | .42780 | .29480 | .27030 |
| 3.040 | 6.086 | -4.94230 | 1976.80000 | 50.71900 | 4.99710 | 2.68850 | 2.38430 | 1.25360 | .38090 | .27230 | .23730 |
| 3.040 | 8.119 | -4.95350 | 1976.80000 | 50.71900 | 4.97670 | 2.67590 | 2.40180 | 1.24950 | .36330 | .25030 | .23030 |
| 3.040 | 10.155 | -4.96440 | 1976.80000 | 50.70100 | 4.95300 | 2.64930 | 2.43560 | 1.25170 | .34450 | .21840 | .20280 |
| 3.040 | 12.189 | -4.97580 | 1976.80000 | 50.71900 | 4.93340 | 2.61820 | 2.44670 | 1.24610 | .32600 | .21000 | .20380 |
| 3.040 | 14.224 | -4.97190 | 1976.80000 | 50.70100 | 4.89340 | 2.57260 | 2.47820 | 1.26210 | .34290 | .23610 | .23400 |
| 3.040 | 16.252 | -4.96960 | 1976.80000 | 50.71900 | 4.80570 | 2.51180 | 2.46280 | 1.23030 | .29540 | .23610 | .23400 |
| 3.040 | 18.292 | -4.95310 | 1976.80000 | 50.71900 | 4.71410 | 2.48970 | 2.48520 | 1.24460 | .31500 | .20560 | .20110 |
| 3.040 | 20.319 | -4.93840 | 1976.80000 | 50.71900 | 4.63800 | 2.43220 | 2.46720 | 1.22220 | .29340 | .19260 | .19770 |
| 3.040 | 22.355 | -4.93850 | 1976.80000 | 59.70100 | 4.53750 | 2.43220 | 2.44200 | 1.18880 | .27870 | .19770 | .19770 |
| 3.040 | 24.391 | -4.92140 | 1976.80000 | 50.70100 | 4.44670 | 2.36850 | 2.43060 | 1.17790 | .27860 | .18760 | .19810 |
| 3.040 | 25.409 | -4.91070 | 1976.80000 | 50.71900 | 4.36560 | 2.37110 | 2.43060 | .00656 | .27860 | .18760 | .19810 |
| GRADIENT | | -.01124 | -.17253 | -.00444 | -.00316 | -.00269 | .00303 | | -.00910 | -.00634 | -.01085 |

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.499 | -.189 | -5.05700 | 2645.20001 | 34.74200 | 6.26880 | 3.26220 | 2.76780 | 1.35080 | .49950 | .30580 | .30580 |
| 3.499 | 1.834 | -5.11870 | 2642.39999 | 34.70500 | 6.26950 | 3.27660 | 2.78650 | 1.37730 | .47870 | .26980 | .27950 |
| 3.499 | 3.886 | -5.13980 | 2641.70001 | 34.68600 | 6.25810 | 3.23920 | 2.78310 | 1.36190 | .42570 | .24680 | .24170 |
| 3.499 | 5.888 | -5.15920 | 2643.10001 | 34.71400 | 6.26980 | 3.24810 | 2.83450 | 1.39970 | .45000 | .28150 | .29090 |
| 3.499 | 7.909 | -5.17150 | 2640.20001 | 34.67700 | 6.22010 | 3.18810 | 2.81990 | 1.36270 | .39630 | .23790 | .22760 |
| 3.499 | 9.947 | -5.17800 | 2642.39999 | 34.70500 | 6.19210 | 3.16940 | 2.85800 | 1.38240 | .36860 | .24390 | .23360 |
| 3.499 | 11.955 | -5.19540 | 2641.89999 | 34.68600 | 6.16550 | 3.13950 | 2.87250 | 1.36500 | .36860 | .21530 | .20300 |
| 3.499 | 13.999 | -5.19950 | 2642.39999 | 34.70500 | 6.13010 | 3.11190 | 2.91810 | 1.39340 | .38930 | .24610 | .23590 |
| 3.499 | 16.035 | -5.19520 | 2639.50000 | 34.68800 | 6.02760 | 3.07890 | 2.93600 | 1.41060 | .39030 | .26280 | .25770 |
| 3.499 | 18.061 | -5.17850 | 2642.39999 | 34.67700 | 5.93960 | 3.04210 | 2.94060 | 1.42270 | .38790 | .27070 | .26050 |
| 3.499 | 20.087 | -5.16850 | 2640.20001 | 34.67700 | 5.77430 | 2.96470 | 2.90340 | 1.36580 | .32370 | .21140 | .23910 |
| 3.499 | 22.116 | -5.15420 | 2641.70001 | 34.69500 | 5.67980 | 2.95690 | 2.94160 | 1.39660 | .36660 | .25440 | .26440 |
| 3.499 | 24.147 | -5.13570 | 2640.20001 | 34.67700 | 5.67980 | 2.85290 | 2.85290 | 1.30410 | .36660 | .16940 | .18540 |
| 3.499 | 25.170 | -5.12480 | 2641.70001 | 34.69600 | 5.45040 | 2.87020 | 2.87530 | 1.34560 | .33590 | .22890 | .22580 |
| GRADIENT | | -.01058 | -.66539 | -.01137 | -.00858 | -.00593 | .00376 | | -.01823 | -.01459 | -.01586 |

TABULATED DATA - OA161 (ARC 11-97-87-09#)
ARC 11-97-87-89# OA161 ORBITER

PARAMETRIC DATA

BETA = -2.000 ELEVON = -0.000
AILRON = .000 BDFLAP = -7.178

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BPEF = 935.6860 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | P | RMFL | 4.2# | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | P55/P | P56/P | P57/P |
|------|----------|----------|------------|------------|---------|---------|-------------------|---------|---------|---------|---------|---------|---------|---------|
| .598 | .084 | -1.84760 | 2594.29999 | 2037.00000 | 1.06190 | 1.01690 | 1.01690 | 1.01690 | 1.01690 | 1.01690 | 1.01690 | 1.01690 | 1.01690 | 1.01690 |
| .600 | 2.128 | -1.85110 | 2595.00000 | 2034.89999 | 1.06470 | 1.01980 | 1.01980 | 1.01980 | 1.01980 | 1.01980 | 1.01980 | 1.01980 | 1.01980 | 1.01980 |
| .602 | 4.182 | -1.85370 | 2595.00000 | 2033.80000 | 1.06610 | 1.02020 | 1.02020 | 1.02020 | 1.02020 | 1.02020 | 1.02020 | 1.02020 | 1.02020 | 1.02020 |
| .604 | 6.257 | -1.85520 | 2595.00000 | 2033.39999 | 1.06630 | 1.02010 | 1.02010 | 1.02010 | 1.02010 | 1.02010 | 1.02010 | 1.02010 | 1.02010 | 1.02010 |
| .606 | 8.342 | -1.85450 | 2595.00000 | 2033.00000 | 1.06480 | 1.01860 | 1.01860 | 1.01860 | 1.01860 | 1.01860 | 1.01860 | 1.01860 | 1.01860 | 1.01860 |
| .608 | 10.452 | -1.85150 | 2595.00000 | 2032.39999 | 1.05990 | 1.01240 | 1.01240 | 1.01240 | 1.01240 | 1.01240 | 1.01240 | 1.01240 | 1.01240 | 1.01240 |
| .610 | 12.576 | -1.84900 | 2595.00000 | 2032.39999 | 1.05500 | 1.00720 | 1.00720 | 1.00720 | 1.00720 | 1.00720 | 1.00720 | 1.00720 | 1.00720 | 1.00720 |
| .612 | 14.666 | -1.84950 | 2595.00000 | 2032.30000 | 1.04740 | 1.00400 | 1.00400 | 1.00400 | 1.00400 | 1.00400 | 1.00400 | 1.00400 | 1.00400 | 1.00400 |
| .614 | 16.802 | -1.84920 | 2594.29999 | 2032.39999 | 1.03800 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .616 | 18.987 | -1.84960 | 2594.29999 | 2032.10000 | 1.02600 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .618 | 21.044 | -1.84810 | 2595.00000 | 2031.50000 | 1.01250 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .620 | 23.129 | -1.84680 | 2595.00000 | 2031.10000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .622 | 25.204 | -1.84160 | 2595.70000 | 2030.30000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .624 | 26.180 | -1.77990 | 2595.70000 | 2030.10000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .626 | GRADIENT | .00096 | .17056 | .68368 | .00078 | .00080 | .00080 | .00080 | .00080 | .00080 | .00146 | .00022 | .00022 | .00017 |

GRADIENT INTERVAL = -3.00# 5.00

| MACH | ALPHA | BETA | PT | P | RMFL | 4.22 | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | P55/P | P56/P | P57/P |
|------|----------|----------|------------|------------|---------|---------|-------------------|---------|---------|---------|---------|---------|---------|---------|
| .628 | .087 | -1.87670 | 2345.29999 | 1695.10000 | 1.09050 | 1.02840 | 1.02840 | 1.02840 | 1.02840 | 1.02840 | 1.02840 | 1.02840 | 1.02840 | 1.02840 |
| .630 | 2.127 | -1.85230 | 2345.29999 | 1692.39999 | 1.09270 | 1.03130 | 1.03130 | 1.03130 | 1.03130 | 1.03130 | 1.03130 | 1.03130 | 1.03130 | 1.03130 |
| .632 | 4.193 | -1.84350 | 2344.60000 | 1693.10000 | 1.09430 | 1.03270 | 1.03270 | 1.03270 | 1.03270 | 1.03270 | 1.03270 | 1.03270 | 1.03270 | 1.03270 |
| .634 | 6.285 | -1.83260 | 2344.60000 | 1696.00000 | 1.09180 | 1.03150 | 1.03150 | 1.03150 | 1.03150 | 1.03150 | 1.03150 | 1.03150 | 1.03150 | 1.03150 |
| .636 | 8.365 | -1.84710 | 2345.29999 | 1698.10000 | 1.08940 | 1.02690 | 1.02690 | 1.02690 | 1.02690 | 1.02690 | 1.02690 | 1.02690 | 1.02690 | 1.02690 |
| .638 | 10.541 | -1.83760 | 2345.29999 | 1696.00000 | 1.08750 | 1.02178 | 1.02178 | 1.02178 | 1.02178 | 1.02178 | 1.02178 | 1.02178 | 1.02178 | 1.02178 |
| .640 | 12.329 | -1.82300 | 2344.60000 | 1695.30000 | 1.08450 | 1.01460 | 1.01460 | 1.01460 | 1.01460 | 1.01460 | 1.01460 | 1.01460 | 1.01460 | 1.01460 |
| .642 | 12.722 | -1.81440 | 2344.60000 | 1692.39999 | 1.08120 | 1.01360 | 1.01360 | 1.01360 | 1.01360 | 1.01360 | 1.01360 | 1.01360 | 1.01360 | 1.01360 |
| .644 | 14.738 | -1.81440 | 2344.60000 | 1692.39999 | 1.07110 | 1.00390 | 1.00390 | 1.00390 | 1.00390 | 1.00390 | 1.00390 | 1.00390 | 1.00390 | 1.00390 |
| .646 | 16.881 | -1.87750 | 2344.60000 | 1696.00000 | 1.06430 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .648 | 19.015 | -1.87750 | 2344.60000 | 1694.50000 | 1.05810 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .650 | 21.151 | -1.86970 | 2344.60000 | 1695.00000 | 1.04430 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .652 | 23.251 | -1.85290 | 2344.60000 | 1695.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .654 | 25.293 | -1.82400 | 2344.60000 | 1693.10000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .656 | 26.248 | -1.77220 | 2343.89999 | 1693.10000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .658 | GRADIENT | .00856 | .17136 | .68368 | .00090 | .00105 | .00105 | .00105 | .00105 | .00105 | .00234 | .00022 | .00022 | .00017 |

TABULATED DATA - 0A161 (ARC 11-97-87-684)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 939.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RUN NO. 42/ 0 RW/L = 4.23 GRADIENT INTERVAL = -9.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PSS/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|---------|---------|--------|
| .798 | .082 | -1.86950 | 2206.0000 | 1450.39999 | 1.12940 | 1.06610 | .98410 | .93930 | .90420 | .90390 | .90390 | .91790 |
| .799 | 2.131 | -1.86500 | 2203.70000 | 1449.80000 | 1.13220 | 1.05020 | .99190 | .94890 | .90950 | .90800 | .90800 | .91870 |
| .797 | 4.214 | -1.85390 | 2207.39999 | 1451.80000 | 1.13240 | 1.04990 | .99950 | .95440 | .90470 | .90310 | .90310 | .91720 |
| .793 | 6.325 | -1.84350 | 2207.39999 | 1451.10000 | 1.13340 | 1.04910 | 1.00750 | .96190 | .90650 | .90500 | .90500 | .92030 |
| .798 | 8.431 | -1.84770 | 2208.10000 | 1451.80000 | 1.13180 | 1.04650 | 1.09820 | .96560 | .90670 | .90510 | .90510 | .91980 |
| .797 | 10.556 | -1.83970 | 2208.10000 | 1452.50000 | 1.12610 | 1.03930 | 1.01200 | .95780 | .90480 | .90340 | .90340 | .91780 |
| .798 | 12.681 | -1.83370 | 2208.79999 | 1451.80000 | 1.11100 | 1.02930 | 1.01030 | .96660 | .90370 | .90220 | .90220 | .91280 |
| .798 | 14.792 | -1.82290 | 2207.10000 | 1451.10000 | 1.10540 | 1.01770 | 1.01050 | .95480 | .89330 | .89170 | .89170 | .90350 |
| .798 | 16.961 | -1.80800 | 2208.79999 | 1451.80000 | 1.09170 | 1.00030 | 1.00310 | .94170 | .88560 | .88300 | .88300 | .89020 |
| .798 | 19.112 | -1.87240 | 2208.79999 | 1451.80000 | 1.07260 | .98240 | .99870 | .93700 | .87580 | .87300 | .87300 | .87390 |
| .797 | 21.253 | -1.86340 | 2208.79999 | 1453.89999 | 1.05980 | .96960 | .98440 | .94300 | .86100 | .85800 | .85800 | .86400 |
| .797 | 23.336 | -1.84570 | 2208.79999 | 1453.20000 | 1.02900 | .93610 | .97300 | .92990 | .84090 | .83900 | .83900 | .84000 |
| .799 | 25.367 | -1.82470 | 2208.79999 | 1451.80000 | 1.00300 | .91380 | .96050 | .91620 | .80690 | .80780 | .80780 | .80090 |
| .798 | 26.313 | -1.78400 | 2208.79999 | 1451.80000 | .99300 | .90170 | .95020 | .90850 | .79940 | .79940 | .79940 | .80180 |
| GRADIENT | | .00864 | .33684 | .34160 | .00072 | .00092 | .00373 | .00565 | .00011 | -.00020 | -.00017 | |

RUN NO. 45/ 0 RW/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PSS/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|--------|
| .847 | .053 | -1.86340 | 2155.79999 | 1348.10000 | 1.15280 | 1.06100 | .98400 | .92930 | .88560 | .88580 | .88580 | .90280 |
| .848 | 2.135 | -1.85980 | 2156.50000 | 1346.70000 | 1.15660 | 1.06440 | .99570 | .94380 | .88630 | .88630 | .88630 | .90240 |
| .847 | 4.229 | -1.85240 | 2155.79999 | 1348.10000 | 1.16080 | 1.06630 | 1.00790 | .95400 | .89050 | .89130 | .89130 | .90540 |
| .847 | 6.338 | -1.84870 | 2157.20000 | 1349.50000 | 1.15790 | 1.06290 | 1.01400 | .96200 | .89070 | .89070 | .89070 | .90590 |
| .847 | 8.444 | -1.84150 | 2156.50000 | 1349.50000 | 1.15530 | 1.05950 | 1.01720 | .96570 | .88940 | .88940 | .88940 | .90770 |
| .848 | 10.574 | -1.83650 | 2156.50000 | 1348.10000 | 1.15160 | 1.05430 | 1.02220 | .97090 | .88430 | .88780 | .88780 | .90500 |
| .848 | 12.701 | -1.83810 | 2157.20000 | 1348.10000 | 1.14330 | 1.04300 | 1.02080 | .96960 | .87770 | .87980 | .87980 | .90390 |
| .847 | 14.816 | -1.83430 | 2156.50000 | 1346.80000 | 1.12970 | 1.02920 | 1.02010 | .96750 | .86890 | .87280 | .87280 | .89420 |
| .848 | 16.935 | -1.82390 | 2157.20000 | 1347.39999 | 1.11600 | 1.01060 | 1.01780 | .96660 | .86180 | .86110 | .86110 | .89230 |
| .847 | 19.145 | -1.81570 | 2157.69999 | 1350.20000 | 1.09200 | .99840 | 1.00570 | .95510 | .84870 | .84820 | .84820 | .89060 |
| .846 | 21.274 | -1.86640 | 2157.20000 | 1350.89999 | 1.07140 | .98430 | .99270 | .94230 | .80440 | .80000 | .80000 | .80570 |
| .846 | 23.372 | -1.85220 | 2157.20000 | 1350.20000 | 1.05440 | .96830 | .97970 | .93090 | .80440 | .79910 | .79910 | .77150 |
| .847 | 25.397 | -1.82610 | 2157.20000 | 1348.80000 | 1.02060 | .91460 | .96760 | .91930 | .77120 | .77130 | .77130 | .76800 |
| .848 | 26.353 | -1.79210 | 2157.20000 | 1348.10000 | 1.00450 | .89850 | .95880 | .91010 | .75740 | .75740 | .75740 | .76800 |
| GRADIENT | | .00264 | -.00032 | .00063 | .00184 | .00127 | .00573 | .00591 | .00096 | .00132 | .00062 | |

TABLATED DATA - 0A154 (ARC 11-97-87-094)

ARC 11-97-87-094 0A154 ORBITER

REFERENCE DATA

SPEF " 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = 0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

(AETR14) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.170

RUN NO. 53/ 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|--------|---------|--------|
| .902 | .083 | -1.90310 | 2127.50000 | 1255.20000 | 1.19080 | 1.08560 | .99870 | .93820 | .87290 | .87030 | .88320 |
| .902 | 2.158 | -1.87480 | 2127.50000 | 1255.20000 | 1.19510 | 1.08970 | 1.00920 | .94980 | .87270 | .87070 | .88780 |
| .899 | 4.250 | -1.86130 | 2127.50000 | 1258.70000 | 1.19350 | 1.08810 | 1.02040 | .96100 | .87330 | .87010 | .88540 |
| .899 | 6.354 | -1.84970 | 2128.20001 | 1258.70000 | 1.19630 | 1.08580 | 1.02990 | .97000 | .87280 | .87110 | .88420 |
| .899 | 8.466 | -1.84550 | 2128.20001 | 1259.50000 | 1.19220 | 1.08340 | 1.03730 | .97850 | .87610 | .87410 | .88720 |
| .900 | 10.607 | -1.83880 | 2128.20001 | 1258.00000 | 1.18500 | 1.07380 | 1.04140 | .98350 | .86790 | .86670 | .88940 |
| .900 | 12.735 | -1.83510 | 2128.20001 | 1258.00000 | 1.17720 | 1.06270 | 1.04160 | .98230 | .86890 | .86810 | .87390 |
| .900 | 14.861 | -1.82660 | 2127.50000 | 1258.00000 | 1.16350 | 1.04710 | 1.04010 | .98190 | .84930 | .84900 | .86040 |
| .900 | 17.041 | -1.82370 | 2127.50000 | 1258.00000 | 1.14680 | 1.02860 | 1.03440 | .97790 | .83530 | .83076 | .84780 |
| .899 | 19.211 | -1.81120 | 2127.50000 | 1258.70000 | 1.12520 | 1.00680 | 1.02310 | .96920 | .81740 | .80770 | .82790 |
| .897 | 21.384 | -1.80480 | 2129.50001 | 1258.99999 | 1.10500 | .98010 | 1.01330 | .95650 | .78680 | .78060 | .79858 |
| .897 | 23.427 | -1.80470 | 2127.50000 | 1261.60001 | 1.07110 | .94930 | .99730 | .94230 | .75630 | .74910 | .75450 |
| .901 | 25.491 | -1.82980 | 2128.20001 | 1256.60001 | 1.04810 | .92400 | .98340 | .92950 | .72960 | .72640 | .72490 |
| .902 | 28.491 | -1.77950 | 2128.20001 | 1255.20000 | 1.03070 | .90776 | .97310 | .91850 | .72040 | .71570 | .71850 |
| | GRADIENT | .01003 | -.00002 | .84103 | -.00065 | .00056 | .00521 | .00547 | .00010 | -.00005 | .00053 |

RUN NO. 56/ 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|---------|---------|--------|---------|
| .950 | .064 | -1.85610 | 2085.70001 | 1167.00000 | 1.23351 | 1.11750 | 1.02130 | .95608 | .83270 | .82470 | .84230 |
| .951 | 2.164 | -1.87090 | 2085.00000 | 1164.80000 | 1.23780 | 1.11970 | 1.03640 | .95930 | .82680 | .82240 | .83750 |
| .948 | 4.269 | -1.89810 | 2084.29999 | 1168.35999 | 1.23760 | 1.11930 | 1.04680 | .98070 | .83140 | .82880 | .84110 |
| .948 | 6.394 | -1.88120 | 2085.70001 | 1168.10001 | 1.23890 | 1.11720 | 1.05800 | .98130 | .82930 | .82790 | .84060 |
| .948 | 8.518 | -1.84570 | 2085.00000 | 1168.39999 | 1.23490 | 1.11470 | 1.06510 | 1.00320 | .83710 | .83100 | .84850 |
| .948 | 10.660 | -1.83450 | 2085.70001 | 1169.10001 | 1.22560 | 1.10220 | 1.07410 | 1.00470 | .83980 | .83130 | .85790 |
| .948 | 12.795 | -1.84170 | 2085.70001 | 1168.10001 | 1.21770 | 1.08940 | 1.06920 | 1.00400 | .80510 | .80100 | .82320 |
| .948 | 14.928 | -1.82340 | 2085.00000 | 1169.10001 | 1.20020 | 1.07250 | 1.06590 | 1.00120 | .78720 | .79180 | .80098 |
| .946 | 17.096 | -1.80880 | 2085.70001 | 1171.89999 | 1.18090 | 1.04970 | 1.06000 | .99770 | .76740 | .77450 | .78350 |
| .946 | 19.240 | -1.80880 | 2085.70001 | 1170.50000 | 1.15880 | 1.02640 | 1.04830 | .98640 | .76140 | .75360 | .76350 |
| .946 | 21.440 | -1.80880 | 2085.00000 | 1171.20000 | 1.13680 | .99900 | 1.03710 | .97330 | .74060 | .72730 | .74570 |
| .946 | 23.525 | -1.80880 | 2085.00000 | 1171.20000 | 1.10780 | .96830 | 1.01960 | .95860 | .70320 | .70000 | .69860 |
| .946 | 25.586 | -1.81350 | 2085.00000 | 1171.89999 | 1.07350 | .93960 | .99960 | .94210 | .68050 | .65650 | .65290 |
| .948 | 26.576 | -1.78120 | 2085.70001 | 1169.10001 | 1.06020 | .92040 | .99290 | .93220 | .66750 | .66500 | .64048 |
| | GRADIENT | -.00047 | -.33273 | .33292 | .00037 | .00043 | .00636 | .00567 | -.00031 | .00097 | -.00028 |

ORIGINAL PAGE IS OF POOR QUALITY

TABULATED DATA - 0A161 (ARC 11-97-87-69H)

ARC 11-97-87-094 0A161 ORBITER

(AETRI4) (02 AUG 75)

REFERENCE DATA

MACH = 2590.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AIRRON = .000 BDFLAP = -1.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|-----------|-----------|---------|---------|---------|---------|--------|--------|--------|
| .991 | .092 | -1.8990 | 2073.7000 | 1119.8999 | 1.26940 | 1.14990 | 1.04760 | .97850 | .78760 | .77560 | .79150 |
| .990 | 2.172 | -1.87150 | 2073.0000 | 1121.3000 | 1.26850 | 1.14890 | 1.05800 | .98930 | .78650 | .77730 | .79230 |
| .979 | 4.274 | -1.86280 | 2076.5000 | 1123.3999 | 1.27100 | 1.14820 | 1.07400 | 1.00320 | .78590 | .77650 | .79270 |
| .979 | 6.403 | -1.84810 | 2077.2999 | 1124.1000 | 1.27050 | 1.14310 | 1.08250 | 1.01190 | .77340 | .77030 | .79160 |
| .977 | 8.539 | -1.83520 | 2074.3999 | 1124.8999 | 1.26380 | 1.13330 | 1.08980 | 1.01770 | .76860 | .76570 | .78930 |
| .970 | 10.692 | -1.81750 | 2075.1000 | 1124.8999 | 1.25700 | 1.12990 | 1.09220 | 1.02210 | .76770 | .73990 | .78210 |
| .950 | 12.840 | -1.81010 | 2078.0000 | 1124.1000 | 1.24800 | 1.11310 | 1.09200 | 1.02350 | .75310 | .74490 | .76790 |
| .978 | 14.976 | -1.83410 | 2075.1000 | 1124.8999 | 1.23190 | 1.09510 | 1.08820 | 1.01950 | .74280 | .73400 | .74570 |
| .978 | 17.185 | -1.90260 | 2075.1000 | 1124.2000 | 1.21390 | 1.07190 | 1.08240 | 1.01690 | .73890 | .72660 | .72980 |
| .978 | 19.359 | -1.8880 | 2077.2999 | 1125.6000 | 1.18990 | 1.04690 | 1.07250 | 1.00650 | .72110 | .70720 | .70070 |
| .974 | 21.466 | -1.8760 | 2072.2999 | 1128.5000 | 1.15840 | 1.01510 | 1.05330 | .98750 | .71090 | .70160 | .69320 |
| .977 | 23.616 | -1.84820 | 2078.0000 | 1127.0000 | 1.13220 | 1.03200 | 1.03800 | 1.00900 | .68000 | .66650 | .65960 |
| .979 | 25.660 | -1.81410 | 2074.3999 | 1124.2000 | 1.10200 | .95950 | 1.01940 | .95810 | .65540 | .64810 | .62610 |
| .972 | 26.67 | -1.77430 | 2073.7000 | 1123.5000 | 1.08420 | .93990 | 1.01040 | .94480 | .64290 | .63730 | .60440 |
| GRADIENT | | .00855 | .57117 | .83719 | .00038 | .00055 | .00631 | .00596 | .00041 | .00021 | .00029 |

RUN NO. 63/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|-----------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.054 | .085 | -1.89270 | 2039.8000 | 1010.7000 | 1.36870 | 1.23230 | 1.12770 | 1.05240 | .72480 | .70540 | .72640 |
| 1.051 | 2.178 | -1.86470 | 2039.8000 | 1014.9000 | 1.36790 | 1.23060 | 1.13840 | 1.06100 | .72180 | .70080 | .72420 |
| 1.052 | 4.293 | -1.84350 | 2043.3000 | 1014.2000 | 1.37260 | 1.23370 | 1.15660 | 1.07310 | .72290 | .70290 | .71390 |
| 1.049 | 6.419 | -1.85210 | 2039.1000 | 1015.3000 | 1.36530 | 1.22390 | 1.16220 | 1.08460 | .71700 | .70410 | .71600 |
| 1.045 | 8.559 | -1.84190 | 2038.3999 | 1019.8000 | 1.35700 | 1.21510 | 1.16390 | 1.08860 | .71310 | .70070 | .71210 |
| .052 | 10.721 | -1.82490 | 2044.0000 | 1014.9000 | 1.35600 | 1.20630 | 1.17450 | 1.09770 | .70220 | .68760 | .68480 |
| .047 | 12.864 | -1.81710 | 2039.1000 | 1019.1000 | 1.3460 | 1.1850 | 1.16460 | 1.08990 | .68640 | .68340 | .68000 |
| .047 | 15.017 | -1.85010 | 2039.1000 | 1019.1000 | 1.31840 | 1.16490 | 1.15030 | 1.08330 | .68400 | .68340 | .68510 |
| 1.043 | 17.238 | -1.90210 | 2044.0000 | 1019.1000 | 1.29680 | 1.13910 | 1.15130 | 1.07770 | .68400 | .68210 | .63660 |
| 1.046 | 19.416 | -1.89440 | 2042.5000 | 1020.5000 | 1.29660 | 1.10940 | 1.13530 | 1.06300 | .68400 | .64120 | .62340 |
| 1.044 | 21.576 | -1.89590 | 2039.8000 | 1023.5000 | 1.29860 | 1.07810 | 1.11530 | 1.04120 | .64140 | .62070 | .60270 |
| 1.044 | 23.627 | -1.85760 | 2043.3000 | 1024.7000 | 1.29820 | 1.04200 | 1.09630 | 1.02250 | .62990 | .57200 | .58280 |
| 1.051 | 25.769 | -1.82970 | 2042.5000 | 1015.6000 | 1.18080 | 1.01780 | 1.08110 | 1.00040 | .61760 | .55990 | .56510 |
| 1.048 | 26.753 | -1.78710 | 2039.8000 | 1017.7000 | 1.15970 | 1.00160 | 1.06230 | .95910 | .60620 | .57490 | .53520 |
| GRADIENT | | .00218 | .82845 | .82869 | .00092 | .00033 | .00634 | .00537 | .00059 | .00073 | .00296 |

RUN NO. 66/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

(AETR14) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AHLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1976.6800 IN. X0
LPEF = 474.8000 IN. YMRP = .0000 IN. Y0
BPEF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 737 0 RVAL = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PSS/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|--------|-------|
| 1.100 | .086 | -1.90230 | 2013.60001 | 943.27000 | 1.42130 | 1.26630 | 1.15420 | 1.07350 | .71680 | .59810 | .70410 | |
| 1.100 | 2.178 | -1.86700 | 2014.30000 | 943.28000 | 1.42050 | 1.26950 | 1.17790 | 1.09130 | .71640 | .69560 | .70710 | |
| 1.100 | 4.289 | -1.83850 | 2015.00000 | 943.98000 | 1.42120 | 1.26570 | 1.19240 | 1.10550 | .71440 | .69940 | .70430 | |
| 1.098 | 6.416 | -1.81620 | 2014.30000 | 945.07000 | 1.41700 | 1.25940 | 1.20200 | 1.11520 | .71020 | .69720 | .70010 | |
| 1.098 | 8.999 | -1.83620 | 2015.00000 | 945.08000 | 1.41120 | 1.24610 | 1.20960 | 1.12140 | .70690 | .69510 | .69370 | |
| 1.098 | 10.719 | -1.82530 | 2015.00000 | 945.08000 | 1.40070 | 1.23440 | 1.20800 | 1.12320 | .70160 | .69320 | .69370 | |
| 1.098 | 12.871 | -1.81090 | 2014.30000 | 945.57000 | 1.38540 | 1.21310 | 1.20240 | 1.11790 | .69400 | .69100 | .67150 | |
| 1.097 | 15.031 | -1.89350 | 2015.00000 | 947.48000 | 1.36490 | 1.18800 | 1.19450 | 1.10670 | .67650 | .64760 | .65420 | |
| 1.097 | 17.249 | -1.90770 | 2014.30000 | 945.77000 | 1.34180 | 1.15940 | 1.18040 | 1.09750 | .67190 | .63340 | .61580 | |
| 1.099 | 19.427 | -1.88760 | 2015.70000 | 945.38000 | 1.31820 | 1.12890 | 1.12570 | 1.07100 | .66210 | .62070 | .58920 | |
| 1.099 | 21.581 | -1.87340 | 2017.10001 | 945.39000 | 1.28790 | 1.09670 | 1.08010 | 1.07410 | .64930 | .61270 | .55290 | |
| 1.099 | 23.694 | -1.85710 | 2016.35999 | 945.39000 | 1.25180 | 1.06180 | 1.06010 | 1.05290 | .64210 | .60420 | .55290 | |
| 1.098 | 25.782 | -1.82550 | 2015.70000 | 945.02000 | 1.22180 | 1.03440 | 1.04340 | 1.05440 | .60690 | .53930 | .53720 | |
| 1.098 | 26.770 | -1.76990 | 2015.00000 | 945.08000 | 1.20410 | 1.02330 | 1.04360 | 1.05690 | .60057 | .53930 | .53720 | |
| | GRADIENT | .01517 | .33338 | .16938 | .00012 | -.00015 | .00671 | .00682 | -.00057 | .00051 | .00004 | |

RUN NO. 764 0 RVAL = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PSS/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|-------|
| 1.150 | .060 | -1.86070 | 2001.60001 | 880.43000 | 1.46810 | 1.29650 | 1.20310 | 1.09820 | .70550 | .68510 | .68520 | |
| 1.150 | 2.160 | -1.85430 | 2002.30000 | 880.50000 | 1.46780 | 1.29120 | 1.21730 | 1.10870 | .70220 | .68140 | .68780 | |
| 1.150 | 4.270 | -1.85000 | 2005.10001 | 881.91000 | 1.46500 | 1.28650 | 1.23370 | 1.12010 | .70200 | .68100 | .68830 | |
| 1.148 | 6.402 | -1.85520 | 2003.00000 | 883.29000 | 1.46060 | 1.27460 | 1.24130 | 1.13200 | .69720 | .68430 | .69030 | |
| 1.149 | 8.549 | -1.84070 | 2004.39999 | 884.00000 | 1.44950 | 1.25900 | 1.23810 | 1.13430 | .69350 | .68210 | .67210 | |
| 1.148 | 10.714 | -1.82780 | 2003.70000 | 883.30000 | 1.43880 | 1.24650 | 1.23950 | 1.13370 | .69080 | .68060 | .68180 | |
| 1.147 | 12.865 | -1.85200 | 2003.70000 | 884.69000 | 1.42370 | 1.23190 | 1.22690 | 1.13840 | .67810 | .68410 | .66330 | |
| 1.149 | 15.022 | -1.85500 | 2003.39999 | 883.99000 | 1.40890 | 1.21900 | 1.21960 | 1.07230 | .67140 | .65180 | .63410 | |
| 1.149 | 17.237 | -1.80890 | 2004.39999 | 882.60000 | 1.39870 | 1.17860 | 1.17740 | 1.03830 | .65750 | .63920 | .61950 | |
| 1.149 | 19.411 | -1.82990 | 2003.00000 | 881.90000 | 1.36130 | 1.14740 | 1.14960 | 1.02180 | .65460 | .63560 | .61510 | |
| 1.151 | 21.565 | -1.82300 | 2005.10001 | 880.52000 | 1.33210 | 1.11870 | 1.11570 | 1.00180 | .64610 | .62670 | .60400 | |
| 1.150 | 23.681 | -1.85380 | 2003.00000 | 881.20000 | 1.30190 | 1.09160 | 1.09680 | .98910 | .63940 | .62400 | .59200 | |
| 1.150 | 25.779 | -1.83330 | 2004.39999 | 881.21000 | 1.26870 | 1.07230 | 1.06810 | .98570 | .61230 | .59250 | .54200 | |
| 1.146 | 26.787 | -1.77950 | 2003.70000 | 885.39000 | 1.24650 | 1.05750 | 1.05350 | .98050 | .61396 | .53490 | .54910 | |
| | GRADIENT | .02255 | .83165 | .33762 | -.00074 | -.00235 | .00713 | .00591 | -.00093 | -.00097 | -.00164 | |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. YMRP = 1076.6800 IN. X0
 LREF = 474.6000 IN. YMRP = .0000 IN. Y0
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0390

BETA = -2.000 ELEVON = .000
 ALLRON = .000 BOFLAP = -7.770

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.201 | .084 | -1.89680 | 2007.20000 | 826.90000 | 1.53750 | 1.34490 | 1.23250 | 1.10778 | .67740 | .65150 | .65560 |
| 1.202 | 2.153 | -1.87610 | 2007.89999 | 826.21000 | 1.52940 | 1.34630 | 1.25120 | 1.12940 | .67960 | .65910 | .65930 |
| 1.203 | 4.262 | -1.87400 | 2007.50000 | 829.98000 | 1.52500 | 1.33830 | 1.25850 | 1.13510 | .67640 | .65080 | .64920 |
| 1.198 | 6.390 | -1.85460 | 2006.50000 | 829.67000 | 1.51780 | 1.32730 | 1.26400 | 1.14240 | .67000 | .64310 | .64310 |
| 1.195 | 8.543 | -1.82470 | 2007.89999 | 832.47000 | 1.50929 | 1.31730 | 1.25750 | 1.12820 | .66810 | .63650 | .63650 |
| 1.193 | 10.711 | -1.81900 | 2007.20000 | 833.37000 | 1.50107 | 1.30798 | 1.25020 | 1.12370 | .66360 | .63750 | .63360 |
| 1.197 | 12.861 | -1.82560 | 2007.20000 | 831.07000 | 1.48883 | 1.28110 | 1.20290 | 1.06590 | .66480 | .62110 | .61780 |
| 1.202 | 15.014 | .85360 | 2007.89999 | 826.21000 | 1.48553 | 1.25330 | 1.18870 | 1.05430 | .64200 | .65290 | .58930 |
| 1.200 | 17.271 | -1.92200 | 2007.20000 | 827.90000 | 1.45000 | 1.23220 | 1.17230 | 1.03960 | .62930 | .63440 | .58930 |
| 1.197 | 19.478 | -1.89700 | 2007.89999 | 831.07000 | 1.42010 | 1.19870 | 1.15270 | 1.02800 | .62240 | .63220 | .55280 |
| 1.197 | 21.555 | -1.86270 | 2007.89999 | 831.77000 | 1.38730 | 1.17040 | 1.13210 | 1.01282 | .62360 | .59070 | .52980 |
| 1.197 | 23.682 | -1.86750 | 2007.89999 | 831.77000 | 1.36430 | 1.14810 | 1.10960 | 1.00430 | .61500 | .53640 | .53640 |
| 1.195 | 25.784 | -1.83630 | 2007.89999 | 833.85000 | 1.32400 | 1.11800 | 1.07730 | .98590 | .59970 | .54060 | .54060 |
| 1.197 | 26.811 | -1.81110 | 2008.50001 | 831.77000 | 1.31180 | 1.10780 | 1.07420 | .97626 | .58420 | .50380 | .52870 |
| | | .00544 | -.03106 | .50042 | -.00227 | -.00159 | .00661 | .00655 | -.00154 | .00222 | -.00154 |

GRADIENT

RUN NO. 66/ 0 R/V/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | R | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.299 | .039 | -1.85990 | 2004.39999 | 724.45000 | 1.63730 | 1.41550 | 1.28940 | 1.14300 | .64530 | .61400 | .61550 |
| 1.299 | 2.131 | -1.86150 | 2003.70000 | 723.73000 | 1.63360 | 1.41090 | 1.28860 | 1.11840 | .64190 | .61620 | .61500 |
| 1.293 | 4.236 | -1.85050 | 2003.70000 | 724.46000 | 1.63350 | 1.40370 | 1.26760 | 1.09560 | .64260 | .62700 | .62660 |
| 1.293 | 6.364 | -1.83680 | 2005.10001 | 725.98000 | 1.62780 | 1.39140 | 1.24260 | 1.09260 | .63760 | .64810 | .59580 |
| 1.295 | 8.512 | -1.84030 | 2005.10001 | 727.40000 | 1.61590 | 1.37290 | 1.23330 | 1.09010 | .63190 | .64030 | .58990 |
| 1.295 | 10.673 | -1.84050 | 2004.39999 | 728.13000 | 1.60520 | 1.35478 | 1.23290 | 1.08630 | .62680 | .63130 | .59140 |
| 1.295 | 12.821 | -1.84580 | 2004.39999 | 722.13000 | 1.59110 | 1.33360 | 1.21960 | 1.07440 | .61660 | .64450 | .53560 |
| 1.295 | 14.976 | -1.86350 | 2005.10001 | 729.13000 | 1.58070 | 1.31300 | 1.20740 | 1.06650 | .60860 | .64200 | .53620 |
| 1.295 | 17.182 | -1.90540 | 2004.39999 | 727.40000 | 1.54960 | 1.28740 | 1.20080 | 1.05750 | .60510 | .64490 | .51740 |
| 1.294 | 19.354 | -1.88810 | 2004.39999 | 728.83000 | 1.52470 | 1.26480 | 1.18170 | 1.04940 | .59340 | .62560 | .53350 |
| 1.293 | 21.520 | -1.88540 | 2005.10001 | 730.92000 | 1.48730 | 1.23810 | 1.15950 | 1.04070 | .59350 | .60560 | .48490 |
| 1.294 | 23.641 | -1.88280 | 2005.10001 | 729.53000 | 1.45430 | 1.21390 | 1.14100 | 1.03350 | .58290 | .54720 | .47910 |
| 1.295 | 25.757 | -1.82970 | 2005.80000 | 728.84000 | 1.42240 | 1.18560 | 1.12960 | 1.02560 | .57480 | .49018 | .48260 |
| 1.295 | 25.799 | -1.82750 | 2005.10001 | 728.83000 | 1.40490 | 1.17240 | 1.12120 | .99890 | .56710 | .46240 | .48770 |
| 1.295 | | -.00017 | -.16663 | .00275 | -.00019 | -.00281 | -.00543 | -.01132 | -.00064 | .08370 | -.00236 |

GRADIENT

(AETR14) (02 AUG 75)

TABULATED DATA - 0R161 (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER

REFERENCE DATA

SREF = 2680.000 SQ.FT. XMRP = 1076.680 IN. X0
 LREF = 474.800 IN. YMRP = 0.000 IN. Y0
 BRP = 938.680 IN. ZMRP = 375.000 IN. Z0
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.770

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/AP | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.401 | .049 | -1.89860 | 2046.80000 | 641.92000 | 1.76040 | 1.50260 | 1.25910 | 1.09580 | .61940 | .58920 | .58150 |
| 1.401 | 2.119 | -1.85330 | 2043.00000 | 642.62000 | 1.49490 | 1.49490 | 1.26080 | 1.09930 | .61630 | .57740 | .57880 |
| 1.402 | 4.213 | -1.84060 | 2048.29999 | 641.88000 | 1.74250 | 1.48538 | 1.27070 | 1.10750 | .61840 | .57920 | .57480 |
| 1.399 | 6.336 | -1.87680 | 2048.29999 | 644.11000 | 1.46800 | 1.46800 | 1.27260 | 1.1250 | .61380 | .59330 | .56420 |
| 1.399 | 8.483 | -1.85530 | 2049.00000 | 644.83000 | 1.72480 | 1.44710 | 1.26420 | 1.1160 | .61430 | .59150 | .56380 |
| 1.399 | 10.645 | -1.82440 | 2049.00000 | 645.57000 | 1.42660 | 1.42660 | 1.26330 | 1.10680 | .60010 | .56170 | .55310 |
| 1.397 | 12.783 | -1.83130 | 2049.00000 | 647.84000 | 1.68750 | 1.39950 | 1.24890 | 1.09930 | .58760 | .58760 | .51830 |
| 1.399 | 14.932 | -1.87970 | 2049.00000 | 644.83000 | 1.69220 | 1.38170 | 1.24520 | 1.09250 | .58110 | .56110 | .50840 |
| 1.399 | 17.145 | -1.91350 | 2049.00000 | 644.83000 | 1.65290 | 1.36150 | 1.23040 | 1.08990 | .58530 | .57500 | .49040 |
| 1.399 | 19.323 | -1.89740 | 2049.00000 | 644.83000 | 1.62650 | 1.33910 | 1.21560 | 1.07970 | .58150 | .59540 | .48910 |
| 1.397 | 21.483 | -1.85990 | 2049.00000 | 647.04000 | 1.59300 | 1.31100 | 1.20360 | 1.06990 | .58010 | .58290 | .46580 |
| 1.398 | 23.638 | -1.89360 | 2049.70001 | 645.55000 | 1.56110 | 1.28910 | 1.19560 | 1.03480 | .57640 | .50930 | .46990 |
| 1.399 | 25.732 | -1.83100 | 2049.70001 | 646.29000 | 1.52880 | 1.26170 | 1.17740 | 1.01240 | .55840 | .42620 | .46310 |
| 1.399 | 26.778 | -1.80490 | 2048.29999 | 647.79000 | 1.50680 | 1.24910 | 1.16890 | 1.00150 | .54230 | .43200 | .43610 |
| 1.395 | GRADIENT | .01153 | .35893 | -.00785 | -.00429 | -.00416 | .00279 | .00281 | -.00024 | -.00048 | -.00161 |

RUN NO. 93/ 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS3/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.556 | .026 | -2.58840 | 1512.10001 | 379.64000 | 1.92240 | 1.63440 | 1.27780 | 1.09700 | .58730 | .57820 | .55800 |
| 1.556 | 2.023 | -2.59750 | 1512.89999 | 379.81000 | 1.92500 | 1.62040 | 1.29020 | 1.10480 | .58580 | .57470 | .55690 |
| 1.556 | 4.059 | -2.56910 | 1511.39999 | 379.46000 | 1.82190 | 1.61340 | 1.30430 | 1.11320 | .56380 | .56590 | .55290 |
| 1.556 | 6.163 | -2.55990 | 1512.69999 | 379.81000 | 1.93990 | 1.59790 | 1.30640 | 1.11920 | .58420 | .56550 | .55000 |
| 1.556 | 8.244 | -2.59790 | 1512.89999 | 379.81000 | 1.88660 | 1.59250 | 1.37690 | 1.12150 | .57110 | .57010 | .54770 |
| 1.556 | 10.354 | -2.59710 | 1512.89999 | 379.81000 | 1.86140 | 1.58240 | 1.29080 | 1.13350 | .54600 | .50440 | .50540 |
| 1.556 | 12.433 | -2.58320 | 1512.10001 | 380.53000 | 1.84280 | 1.56750 | 1.28910 | 1.12860 | .53270 | .48900 | .50470 |
| 1.556 | 14.433 | -2.58140 | 1515.70000 | 380.53000 | 1.84880 | 1.47100 | 1.26950 | 1.10540 | .52680 | .50210 | .48850 |
| 1.556 | 16.422 | -2.57870 | 1516.39999 | 380.70000 | 1.75840 | 1.44540 | 1.27820 | 1.08120 | .51390 | .51850 | .49960 |
| 1.556 | 18.415 | -2.57510 | 1515.00000 | 380.53000 | 1.74340 | 1.42660 | 1.26530 | 1.06870 | .49670 | .49160 | .44910 |
| 1.556 | 20.408 | -2.57050 | 1515.70000 | 380.53000 | 1.71150 | 1.39560 | 1.25340 | 1.04560 | .46240 | .43300 | .43450 |
| 1.556 | 22.405 | -2.57050 | 1515.70000 | 380.53000 | 1.68660 | 1.38430 | 1.24840 | 1.03620 | .43210 | .42930 | .42410 |
| 1.556 | 24.402 | -2.57040 | 1516.39999 | 380.70000 | 1.66600 | 1.38430 | 1.24840 | 1.03620 | .42270 | .42270 | .42120 |
| 1.556 | GRADIENT | -.00018 | -.17545 | -.00450 | -.00013 | -.00513 | .00661 | .00338 | -.00091 | -.00278 | -.00126 |

RUN NO. 322/ 0 RM/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 CRBITER

(AE7R14) (DE AVS 75)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ATLIRON = .050 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0330

| Y/ACH | ALPHA | BETA | RT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.750 | -.155 | -2.40120 | 1649.39999 | 309.58000 | 2.18190 | 1.82590 | 1.37000 | 1.17250 | 55680 | 53160 | 51670 |
| 1.750 | .065 | -2.41380 | 1650.10001 | 309.72000 | 2.18320 | 1.82050 | 1.36710 | 1.17260 | 35710 | 53190 | 51780 |
| 1.750 | 1.921 | -2.40490 | 1650.72000 | 309.72000 | 2.17870 | 1.81540 | 1.37280 | 1.18370 | 55480 | 52970 | 51530 |
| 1.750 | 3.685 | -2.46710 | 1649.39999 | 309.58000 | 2.18130 | 1.81450 | 1.36800 | 1.18680 | 55560 | 53500 | 51730 |
| 1.750 | 5.944 | -2.40770 | 1649.39999 | 309.58000 | 2.17950 | 1.80510 | 1.36920 | 1.18810 | 55420 | 53190 | 51790 |
| 1.750 | 10.122 | -2.40770 | 1649.39999 | 309.58000 | 2.14000 | 1.78290 | 1.38300 | 1.20030 | 49420 | 49380 | 51110 |
| 1.750 | 12.127 | -2.40590 | 1649.39999 | 309.58000 | 2.11570 | 1.75750 | 1.38250 | 1.19950 | 51650 | 48390 | 48120 |
| 1.750 | 14.167 | -2.40590 | 1649.39999 | 309.58000 | 2.09750 | 1.73690 | 1.37400 | 1.18950 | 50680 | 48190 | 48120 |
| 1.750 | 16.285 | -2.40470 | 1649.39999 | 309.58000 | 2.07610 | 1.71270 | 1.36860 | 1.17820 | 49560 | 47670 | 47560 |
| 1.750 | 18.379 | -2.40120 | 1649.39999 | 309.58000 | 2.04720 | 1.69390 | 1.37170 | 1.17140 | 49560 | 48360 | 47560 |
| 1.750 | 20.395 | -2.40090 | 1649.39999 | 309.58000 | 2.01420 | 1.66040 | 1.37660 | 1.16510 | 48370 | 48420 | 47560 |
| 1.750 | 22.471 | -2.39740 | 1650.10001 | 309.72000 | 1.97850 | 1.62010 | 1.37010 | 1.15720 | 48370 | 48330 | 47540 |
| 1.750 | 24.528 | -2.39430 | 1649.39999 | 309.58000 | 1.94470 | 1.59650 | 1.35450 | 1.14450 | 48370 | 48230 | 47540 |
| 1.750 | 25.544 | -2.39120 | 1649.39999 | 309.58000 | 1.92970 | 1.56540 | 1.35210 | 1.13570 | 48230 | 48230 | 47540 |
| GRADIENT | | .00007 | -.06114 | -.01223 | -.00052 | -.00244 | .00262 | .00348 | -.00043 | -.00266 | -.00503 |

| Y/ACH | ALPHA | BETA | RT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.997 | -1.142 | -2.93880 | 1814.89999 | 233.15000 | 2.61820 | 2.02930 | 1.48310 | 1.19530 | 47380 | 44720 | 43370 |
| 1.997 | 1.764 | -2.93520 | 1812.70000 | 232.87000 | 2.60860 | 2.02640 | 1.50480 | 1.21750 | 47540 | 45910 | 44010 |
| 1.997 | 3.731 | -2.93490 | 1814.89999 | 233.15000 | 2.60360 | 2.00900 | 1.50680 | 1.23560 | 48040 | 47050 | 42710 |
| 1.997 | 6.125 | -2.93560 | 1814.89999 | 233.15000 | 2.58330 | 1.95590 | 1.51050 | 1.24270 | 48990 | 47530 | 43980 |
| 1.997 | 10.252 | -2.93310 | 1814.10001 | 233.06000 | 2.56690 | 1.95570 | 1.50060 | 1.25390 | 45370 | 42700 | 42760 |
| 1.997 | 14.385 | -2.93350 | 1814.89999 | 233.15000 | 2.47470 | 1.91390 | 1.53500 | 1.21850 | 42710 | 38630 | 41590 |
| 1.997 | 18.625 | -2.93080 | 1814.89999 | 233.15000 | 2.41910 | 1.86780 | 1.53200 | 1.21380 | 42710 | 38490 | 40880 |
| 1.997 | 20.653 | -2.92800 | 1814.10001 | 233.06000 | 2.42020 | 1.85750 | 1.52040 | 1.20880 | 41580 | 38460 | 39150 |
| 1.997 | 22.719 | -2.92560 | 1814.10001 | 233.06000 | 2.37180 | 1.80930 | 1.51810 | 1.19920 | 38280 | 35280 | 38000 |
| 1.997 | 24.800 | -2.92250 | 1815.60001 | 233.24000 | 2.34630 | 1.77670 | 1.50100 | 1.20820 | 36830 | 33560 | 37400 |
| 1.997 | 25.358 | -2.91760 | 1815.60001 | 233.15000 | 2.24580 | 1.71160 | 1.48330 | 1.17360 | 37770 | 33560 | 33970 |
| GRADIENT | | .00103 | -.00587 | .00074 | -.00320 | -.00620 | -.00637 | .00822 | .00171 | .00602 | -.00224 |

(AETRIN) (02 AUG 76)

TABULATED DATA - 0A16A (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A16A ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. X0
 LDEF = 474.6000 IN. YMRP = .0000 IN. Y0
 BPEF = 936.6880 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA =
 ALLRON = -2.08C ELEVON = .000
 BDFLAR = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|------------|-----------|---|---------|---------|---------|---------|---------|--------|---------|
| 2.250 | -3.03380 | 1940.00000 | 167.85000 | | 2.96650 | 2.22240 | 1.58020 | 1.26240 | .44290 | .42500 | .39350 |
| 2.250 | -3.03228 | 1937.30988 | 167.37000 | | 2.97240 | 2.23810 | 1.59110 | 1.26180 | .43800 | .40240 | .38620 |
| 2.250 | -3.03120 | 1937.20000 | 167.61000 | | 2.97496 | 2.22110 | 1.58630 | 1.29560 | .43440 | .43000 | .37190 |
| 2.250 | -3.03130 | 1940.70000 | 167.92000 | | 2.96870 | 2.21500 | 1.59940 | 1.29520 | .42880 | .42130 | .38050 |
| 2.250 | -3.03120 | 1942.20000 | 168.04000 | | 2.94530 | 2.20488 | 1.60460 | 1.29730 | .41740 | .41740 | .38620 |
| 2.250 | -3.02950 | 1942.89999 | 168.10000 | | 2.91860 | 2.19540 | 1.61580 | 1.29478 | .39250 | .40110 | .37640 |
| 2.250 | -3.02900 | 1943.60001 | 168.17000 | | 2.89820 | 2.17850 | 1.62710 | 1.29410 | .38150 | .38150 | .36550 |
| 2.250 | -3.02690 | 1948.80000 | 168.59000 | | 2.87930 | 2.16520 | 1.63420 | 1.30200 | .38370 | .38370 | .34440 |
| 2.250 | -3.02620 | 1949.89999 | 168.72000 | | 2.84060 | 2.12670 | 1.62930 | 1.29340 | .32620 | .32620 | .33280 |
| 2.250 | -3.02380 | 1949.89999 | 168.72000 | | 2.79870 | 2.09450 | 1.63490 | 1.27670 | .36780 | .36780 | .33280 |
| 2.250 | -3.02060 | 1950.70000 | 168.78000 | | 2.75150 | 2.05500 | 1.62610 | 1.27580 | .35310 | .35310 | .31110 |
| 2.250 | -3.01880 | 1950.70000 | 168.78000 | | 2.70570 | 2.00190 | 1.62740 | 1.25400 | .33700 | .33700 | .34660 |
| 2.250 | -3.01580 | 1949.89999 | 168.72000 | | 2.52710 | 1.95250 | 1.63930 | 1.23840 | .34470 | .34470 | .31910 |
| 2.250 | -3.01430 | 1952.10001 | 168.90000 | | 2.59868 | 1.94620 | 1.62270 | 1.23090 | .33940 | .33940 | .29890 |
| 2.250 | .00067 | -.68219 | -.66394 | | -.00208 | -.00529 | .00149 | .00822 | -.00211 | .00378 | -.00537 |

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|----------|---------|---------|---------|---------|---------|--------|---------|
| 2.499 | 1.117 | -1.94050 | 1449.89999 | 85.03500 | 3.46680 | 2.59280 | 1.72510 | 1.34240 | .47470 | .37640 | .35760 |
| 2.499 | 2.151 | -1.95020 | 1449.20000 | 84.99400 | 3.46880 | 2.60590 | 1.74760 | 1.37320 | .47390 | .37770 | .35680 |
| 2.499 | 4.178 | -1.95950 | 1449.89999 | 85.03500 | 3.45910 | 2.58800 | 1.75450 | 1.36050 | .46550 | .37990 | .35900 |
| 2.499 | 6.214 | -1.96710 | 1449.20000 | 84.99400 | 3.44700 | 2.56970 | 1.77180 | 1.39240 | .45680 | .38140 | .35210 |
| 2.499 | 8.255 | -1.97330 | 1449.20000 | 84.99400 | 3.42720 | 2.54910 | 1.77130 | 1.37850 | .44580 | .37050 | .35580 |
| 2.499 | 10.291 | -1.97840 | 1449.20000 | 84.99400 | 3.40570 | 2.52900 | 1.79990 | 1.42300 | .43970 | .36940 | .34780 |
| 2.499 | 12.332 | -1.98100 | 1449.89999 | 85.03500 | 3.38410 | 2.49770 | 1.79390 | 1.37340 | .43950 | .36950 | .34950 |
| 2.499 | 14.379 | -1.98330 | 1449.89999 | 85.03500 | 3.34540 | 2.47730 | 1.79960 | 1.37100 | .43950 | .36950 | .34950 |
| 2.499 | 16.417 | -1.98390 | 1449.89999 | 85.03500 | 3.30190 | 2.46370 | 1.80740 | 1.39350 | .43430 | .36490 | .34710 |
| 2.499 | 18.458 | -1.98180 | 1449.69999 | 85.03500 | 3.23630 | 2.44820 | 1.79470 | 1.39250 | .42930 | .36030 | .34720 |
| 2.499 | 20.503 | -1.97620 | 1449.89999 | 85.03500 | 3.17710 | 2.43160 | 1.78160 | 1.38080 | .42570 | .35700 | .34640 |
| 2.499 | 22.548 | -1.97500 | 1449.89999 | 85.03500 | 3.12700 | 2.42480 | 1.76860 | 1.37290 | .42290 | .35450 | .34630 |
| 2.499 | 24.590 | -1.95850 | 1449.89999 | 85.03500 | 3.09200 | 2.42560 | 1.76870 | 1.34290 | .42290 | .35450 | .34630 |
| 2.499 | 25.615 | -1.95440 | 1449.89999 | 85.03500 | 3.00470 | 2.42420 | 1.76690 | 1.33990 | .42290 | .35450 | .34630 |
| 2.499 | GRADIENT | -.00468 | -.00021 | -.00001 | -.00057 | -.00118 | .00724 | .00938 | -.00226 | .00066 | -.00034 |

(AETR14) (02 AUG 78)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-09% 0A161 ORBITTER

REFERENCE DATA

SPEE = 2690.0000 SO.FT. YMRP = 1076.6880 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .3300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ALFRON = .000 SDFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|----------|---------|---------|---------|---------|---------|--------|---------|
| 3.040 | .046 | -1.86680 | 1976.80000 | 50.71900 | 4.44450 | 3.24710 | 2.00410 | 1.45690 | .45300 | .31290 | .29190 |
| 3.040 | 2.065 | -1.87620 | 1975.80000 | 50.71900 | 4.42110 | 3.22698 | 1.99940 | 1.48770 | 4.230 | .29810 | .28910 |
| 3.040 | 4.097 | -1.88680 | 1976.80000 | 50.71900 | 4.43910 | 3.23540 | 2.04220 | 1.52780 | 4.4310 | .31710 | .30610 |
| 3.040 | 6.123 | -1.89750 | 1976.80000 | 50.71900 | 4.45510 | 3.18750 | 2.02390 | 1.48770 | .39420 | .26460 | .25470 |
| 3.040 | 8.153 | -1.90800 | 1976.80000 | 50.71900 | 4.40490 | 3.18750 | 2.07170 | 1.53650 | 4.2068 | .28470 | .27480 |
| 3.040 | 10.187 | -1.92250 | 1976.80000 | 50.71900 | 4.36910 | 3.14090 | 2.06670 | 1.51730 | .38360 | .29410 | .28420 |
| 3.040 | 12.217 | -1.93780 | 1976.80000 | 50.71900 | 4.35110 | 3.11660 | 2.06670 | 1.53990 | .25700 | .25700 | .24710 |
| 3.040 | 14.256 | -1.95760 | 1976.80000 | 50.71900 | 4.29480 | 3.06970 | 2.08260 | 1.51210 | .33600 | .21700 | .20710 |
| 3.040 | 16.290 | -1.98900 | 1976.80000 | 50.71900 | 4.21340 | 3.02650 | 2.06710 | 1.51790 | .31540 | .20090 | .19100 |
| 3.040 | 18.321 | -1.97350 | 1976.80000 | 50.71900 | 4.14340 | 2.99450 | 2.07470 | 1.50000 | .33040 | .22190 | .21200 |
| 3.040 | 20.361 | -1.90460 | 1976.80000 | 50.71900 | 4.04870 | 2.91630 | 2.04380 | 1.50000 | .30100 | .20280 | .19290 |
| 3.040 | 22.395 | -1.89390 | 1976.80000 | 50.71900 | 3.95680 | 2.88420 | 2.05860 | 1.51550 | .32300 | .22480 | .21490 |
| 3.040 | 24.430 | -1.89390 | 1976.80000 | 50.71900 | 3.86570 | 2.82250 | 2.03580 | 1.49280 | .30300 | .20510 | .19520 |
| 3.040 | 25.460 | -1.88390 | 1976.80000 | 50.71900 | 3.85990 | 2.80940 | 2.02180 | 1.46640 | .33940 | .28440 | .27450 |
| GRADIENT | | | | | -.00132 | -.00288 | .00842 | .00776 | -.00243 | .00106 | -.00068 |

RUN NO. 427/ 0 RVL = 1.99 GRADIENT INTERVAL = 5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|----------|---------|---------|---------|---------|---------|--------|---------|
| 3.499 | 1.174 | -1.97800 | 2649.39999 | 34.79900 | 5.41409 | 3.86330 | 2.29270 | 1.65170 | .53270 | .31460 | .30450 |
| 3.499 | 3.668 | -1.99090 | 2650.79999 | 34.81500 | 5.41390 | 3.85140 | 2.28900 | 1.64770 | .45680 | .29370 | .27360 |
| 3.499 | 6.168 | -1.99560 | 2653.70001 | 34.85300 | 5.42350 | 3.87040 | 2.33190 | 1.63200 | 4.8880 | .32630 | .30090 |
| 3.499 | 8.668 | -2.00640 | 2653.00000 | 34.84400 | 5.43000 | 3.83110 | 2.32540 | 1.66620 | .27020 | .24480 | .24480 |
| 3.499 | 11.168 | -2.01230 | 2653.60001 | 34.82500 | 5.39050 | 3.79750 | 2.34790 | 1.68020 | .26330 | .23000 | .23000 |
| 3.499 | 13.668 | -2.01770 | 2653.70001 | 34.85300 | 5.36690 | 3.75670 | 2.34470 | 1.67430 | .38430 | .24190 | .24190 |
| 3.499 | 16.168 | -2.02270 | 2652.29999 | 34.83500 | 5.32040 | 3.71500 | 2.37380 | 1.68290 | .24350 | .24350 | .23500 |
| 3.499 | 18.668 | -2.02170 | 2651.60001 | 34.82600 | 5.24910 | 3.67350 | 2.37200 | 1.67590 | .35900 | .25350 | .21150 |
| 3.499 | 21.168 | -2.02100 | 2655.79999 | 34.88100 | 5.17830 | 3.65330 | 2.39520 | 1.73630 | .38050 | .25390 | .23500 |
| 3.499 | 23.668 | -2.02120 | 2653.00000 | 34.84400 | 5.08800 | 3.60020 | 2.40630 | 1.74560 | .37920 | .26230 | .24200 |
| 3.499 | 26.168 | -2.02170 | 2655.10001 | 34.87200 | 4.96990 | 3.51200 | 2.36910 | 1.70870 | .33030 | .23050 | .22540 |
| 3.499 | 28.668 | -2.01230 | 2653.70001 | 34.85300 | 4.87760 | 3.46040 | 2.36260 | 1.71230 | .33030 | .22380 | .20200 |
| 3.499 | 31.168 | -2.00380 | 2654.39999 | 34.85300 | 4.77130 | 3.40410 | 2.33680 | 1.69630 | .32400 | .22240 | .20210 |
| 3.499 | 33.668 | -2.00370 | 2653.00000 | 34.84400 | 4.69250 | 3.37030 | 2.30750 | 1.67180 | .31400 | .21290 | .20210 |
| GRADIENT | | | | | -.00379 | -.00176 | .00981 | .01127 | -.00342 | .00291 | -.00068 |

(METRICS) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-084 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALIRON = .000 SDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 31/ 0 RM/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|--------|--------|--------|--------|--------|
| .598 | .075 | .19450 | 2594.29999 | 2037.00000 | 1.04620 | 1.03320 | 98270 | 97510 | 95080 | 94660 | 95680 |
| .599 | 2.125 | 20690 | 2595.00000 | 2037.00000 | 1.04720 | 1.03490 | 98620 | 97980 | 95150 | 94650 | 95490 |
| .596 | 4.183 | 20860 | 2594.29999 | 2039.80000 | 1.04990 | 1.03600 | 98970 | 98130 | 95140 | 94770 | 95630 |
| .597 | 6.253 | 21040 | 2595.00000 | 2038.39999 | 1.05030 | 1.03460 | 99146 | 98460 | 94980 | 94750 | 95770 |
| .596 | 8.344 | 21520 | 2595.00000 | 2040.50000 | 1.04837 | 1.02800 | 99096 | 98340 | 94950 | 94830 | 95510 |
| .597 | 10.444 | 21130 | 2595.00000 | 2039.10001 | 1.04423 | 1.02800 | 99070 | 98230 | 94820 | 94760 | 95500 |
| .597 | 12.540 | 20970 | 2595.00000 | 2033.10001 | 1.04073 | 1.02260 | 98820 | 98000 | 94730 | 94730 | 95340 |
| .597 | 14.656 | 22340 | 2595.70001 | 2039.10001 | 1.03553 | 1.01420 | 98500 | 97550 | 94320 | 94220 | 95340 |
| .597 | 16.772 | 21590 | 2595.70001 | 2039.80000 | 1.02190 | 1.00310 | 98180 | 97130 | 94220 | 94220 | 95350 |
| .597 | 18.885 | 20210 | 2595.00000 | 2039.80000 | 1.01000 | 99280 | 97350 | 96400 | 93380 | 93380 | 94650 |
| .597 | 20.999 | 20130 | 2595.70001 | 2040.50000 | 99750 | 99080 | 96550 | 95400 | 92250 | 92250 | 94650 |
| .596 | 23.099 | 20130 | 2596.39999 | 2041.30000 | 98160 | 95510 | 95640 | 94200 | 91380 | 91380 | 94650 |
| .597 | 25.168 | 20700 | 2595.39999 | 2042.60001 | 96430 | 94900 | 94720 | 94590 | 92710 | 92710 | 94650 |
| .599 | 26.147 | 116810 | 2596.39999 | 2037.70000 | 95980 | 94260 | 94320 | 94170 | 91550 | 91550 | 94650 |
| | GRADIENT | .00343 | -.00025 | .66205 | .00090 | .00068 | .00116 | .00151 | .00015 | .00002 | .00015 |

RUN NO. 35/ 0 RM/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|--------|--------|--------|--------|--------|
| .599 | .064 | .19100 | 2357.29999 | 1701.60001 | 1.06900 | 1.04990 | 97520 | 96520 | 93690 | 92450 | 93820 |
| .598 | 2.125 | 21190 | 2357.29999 | 1702.30000 | 1.06980 | 1.05130 | 98010 | 97050 | 93220 | 92710 | 93880 |
| .599 | 4.196 | 20990 | 2356.60001 | 1700.20000 | 1.07340 | 1.05500 | 98770 | 97720 | 93140 | 92820 | 93950 |
| .596 | 6.267 | 21800 | 2358.60001 | 1704.50000 | 1.07210 | 1.05170 | 98760 | 97760 | 93190 | 92690 | 93900 |
| .597 | 8.396 | 21550 | 2357.29999 | 1704.50000 | 1.06970 | 1.04830 | 98990 | 98120 | 93290 | 93100 | 94140 |
| .597 | 10.508 | 21490 | 2357.29999 | 1704.50000 | 1.06540 | 1.04230 | 98840 | 98020 | 92910 | 92740 | 94030 |
| .597 | 12.608 | 21210 | 2356.89999 | 1703.80000 | 1.05810 | 1.04230 | 98810 | 97950 | 92770 | 92730 | 93150 |
| .597 | 14.734 | 22270 | 2356.60001 | 1705.89999 | 1.04720 | 1.02460 | 98320 | 97580 | 92510 | 92510 | 93150 |
| .597 | 16.858 | 21410 | 2357.29999 | 1703.80000 | 1.03430 | 1.01300 | 97870 | 97180 | 91650 | 91650 | 91940 |
| .597 | 18.999 | 20880 | 2356.60001 | 1703.80000 | 99310 | 98100 | 96590 | 95810 | 92500 | 92500 | 92920 |
| .596 | 21.115 | 19560 | 2357.29999 | 1705.60001 | 1.02180 | 99190 | 96310 | 95650 | 90160 | 90160 | 90120 |
| .599 | 23.215 | 19220 | 2358.00000 | 1703.00000 | 1.00540 | 98670 | 94990 | 94550 | 88820 | 88820 | 87120 |
| .597 | 25.271 | 18220 | 2356.00000 | 1703.00000 | 98230 | 94240 | 93630 | 93100 | 89420 | 89420 | 86540 |
| .597 | 26.243 | 18330 | 2357.29999 | 1701.60001 | 96180 | 93120 | 93160 | 93150 | 86080 | 86080 | 86540 |
| .599 | GRADIENT | .00457 | -.16953 | -.33935 | .00107 | .00123 | .00113 | .00299 | .00012 | .00090 | .00031 |

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OF POOR QUALITY

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

(AETR:5) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XJ
 LREF = 474.6000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AILRON = .000 ECFAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|--------|------------|------------|---------|---------|--------|--------|--------|--------|--------|
| .799 | .043 | .19230 | 2197.50000 | 1443.30000 | 1.10090 | 1.07490 | .96670 | .95410 | .95600 | .90190 | .91550 |
| .799 | 2.122 | .21540 | 2193.20001 | 1443.30000 | 1.10200 | 1.07810 | .97720 | .95160 | .95770 | .90460 | .91580 |
| .799 | 6.322 | .22050 | 2198.20001 | 1444.70000 | 1.10590 | 1.07890 | .98340 | .96760 | .95800 | .90310 | .91520 |
| .799 | 8.439 | .22600 | 2198.20001 | 1444.70000 | 1.10730 | 1.07910 | .98660 | .97200 | .95700 | .90270 | .91500 |
| .799 | 10.556 | .23240 | 2198.20001 | 1445.39999 | 1.10410 | 1.07530 | .99500 | .98180 | .95500 | .90180 | .91550 |
| .799 | 12.673 | .23900 | 2193.20001 | 1445.39999 | 1.09250 | 1.06470 | .99900 | .98700 | .95300 | .90140 | .91500 |
| .799 | 14.790 | .24590 | 2193.20001 | 1445.39999 | 1.09110 | 1.05750 | .99900 | .98700 | .95300 | .90140 | .91500 |
| .799 | 16.935 | .25350 | 2193.20001 | 1447.60000 | 1.07650 | 1.04530 | .99700 | .98400 | .95100 | .89900 | .91500 |
| .799 | 19.054 | .26300 | 2198.20001 | 1449.00000 | 1.06090 | 1.03200 | .99500 | .98100 | .94900 | .89700 | .91500 |
| .799 | 21.222 | .27450 | 2206.10001 | 1447.50000 | 1.02460 | .99500 | .96400 | .95200 | .93300 | .88100 | .89830 |
| .799 | 23.439 | .28730 | 2207.39999 | 1450.39999 | .99930 | .96860 | .95600 | .93800 | .92000 | .86800 | .88550 |
| .799 | 25.739 | .30150 | 2207.39999 | 1451.10001 | .97570 | .94500 | .93500 | .91700 | .90000 | .84800 | .86550 |
| .799 | 28.131 | .31710 | 2207.39999 | 1450.39999 | .95030 | .92750 | .93200 | .91500 | .89800 | .84600 | .86350 |
| .799 | 30.675 | .33410 | .16733 | .53572 | .90122 | .80074 | .90400 | .88700 | .87000 | .81800 | .83550 |

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 41/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|--------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .845 | .065 | .15520 | 2153.60001 | 1348.60000 | 1.12160 | 1.09010 | .96560 | .94900 | .95690 | .90290 | .91650 |
| .849 | 2.134 | .21150 | 2156.50000 | 1346.70000 | 1.12700 | 1.09660 | .98090 | .96300 | .95900 | .90300 | .91700 |
| .849 | 4.227 | .20650 | 2156.50000 | 1346.00000 | 1.13040 | 1.09660 | .98940 | .97100 | .96300 | .90300 | .91700 |
| .849 | 6.330 | .21220 | 2156.50000 | 1348.10001 | 1.12990 | 1.09590 | .99540 | .97600 | .96300 | .90300 | .91700 |
| .849 | 8.447 | .21950 | 2157.20001 | 1348.60000 | 1.12470 | 1.09270 | .99800 | .98100 | .96300 | .90300 | .91700 |
| .849 | 10.556 | .22530 | 2157.20001 | 1349.50000 | 1.12300 | 1.09350 | 1.00350 | .98700 | .96300 | .90300 | .91700 |
| .849 | 12.677 | .23290 | 2157.20001 | 1350.20000 | 1.11230 | 1.07260 | 1.00350 | .98700 | .96300 | .90300 | .91700 |
| .849 | 14.810 | .24110 | 2157.20001 | 1348.80000 | 1.09750 | 1.05980 | .99900 | .98700 | .96300 | .90300 | .91700 |
| .849 | 16.952 | .25000 | 2157.20001 | 1349.50000 | 1.07950 | 1.04410 | .99700 | .98700 | .96300 | .90300 | .91700 |
| .849 | 19.089 | .26050 | 2157.20001 | 1349.50000 | 1.05830 | 1.02280 | .99500 | .98700 | .96300 | .90300 | .91700 |
| .849 | 21.224 | .27280 | 2157.20001 | 1351.70000 | 1.03730 | 1.00050 | .99400 | .98700 | .96300 | .90300 | .91700 |
| .849 | 23.330 | .28640 | 2157.20001 | 1351.70000 | 1.01670 | .97200 | .99300 | .98700 | .96300 | .90300 | .91700 |
| .849 | 25.439 | .30150 | 2156.50000 | 1348.60000 | .99740 | .95000 | .99300 | .98700 | .96300 | .90300 | .91700 |
| .849 | 27.539 | .31710 | 2157.20001 | 1348.10001 | .97120 | .93470 | .99300 | .98700 | .96300 | .90300 | .91700 |
| .849 | 29.675 | .33410 | .52687 | .57205 | .90211 | .80194 | .90571 | .88800 | .87100 | .81900 | .83650 |

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 46/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

TABLATED DATA - 04161 (ARC 11-97-87-094)

ARC 11-97-87-084 ORIGIN ORBITER

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1075.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

RUN NO. 52/ 0 RW/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | P1/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|--------|
| 900 | .047 | .18810 | 2127.50000 | 1258.00000 | 1.15430 | 1.11820 | .97850 | .95530 | .87340 | .86920 | .86460 | .86060 |
| 903 | 2.1 | .20240 | 2127.50000 | 1254.50000 | 1.16010 | 1.12730 | .99330 | .96900 | .87510 | .87020 | .86550 | .86150 |
| 899 | 4.2 | .20430 | 2127.50000 | 1258.70000 | 1.15920 | 1.12240 | 1.00190 | .97760 | .87080 | .86590 | .86120 | .85720 |
| 898 | 6.356 | .21080 | 2127.50000 | 1260.20000 | 1.15880 | 1.12110 | 1.01200 | .98970 | .87460 | .86970 | .86500 | .86100 |
| 899 | 8.472 | .21290 | 2127.50000 | 1259.50000 | 1.15890 | 1.11630 | 1.01650 | .99330 | .87460 | .86970 | .86500 | .86100 |
| 900 | 10.604 | .21680 | 2127.50000 | 1258.00000 | 1.14930 | 1.10840 | 1.01940 | 1.00280 | .86870 | .86380 | .85910 | .85510 |
| 898 | 12.723 | .21800 | 2126.79999 | 1260.89999 | 1.14034 | 1.09420 | 1.01950 | .99810 | .85820 | .85330 | .84860 | .84460 |
| 897 | 14.869 | .21910 | 2127.50000 | 1261.60001 | 1.12320 | 1.08060 | 1.01730 | .99760 | .84510 | .84020 | .83550 | .83150 |
| 901 | 17.049 | .22950 | 2127.50000 | 1255.89999 | 1.10890 | 1.06570 | 1.01460 | .99860 | .83380 | .82890 | .82420 | .82020 |
| 897 | 19.153 | .22950 | 2126.79999 | 1261.60001 | 1.08720 | 1.04240 | 1.00050 | .98910 | .80730 | .80240 | .79770 | .79370 |
| 896 | 21.287 | .21300 | 2126.79999 | 1262.39999 | 1.06390 | 1.01680 | .98850 | .97840 | .78460 | .77970 | .77500 | .77100 |
| 898 | 23.403 | .20990 | 2127.50000 | 1260.70000 | 1.03460 | .98980 | .97350 | .95460 | .76070 | .75580 | .75110 | .74710 |
| 899 | 25.440 | .19910 | 2127.50000 | 1259.50000 | 1.00750 | .96430 | .95850 | .94350 | .73380 | .72890 | .72420 | .72020 |
| 900 | 28.438 | .14580 | 2128.20000 | 1259.00000 | .99350 | .94660 | .94810 | .93350 | .72220 | .71730 | .71260 | .70860 |
| | GRADIENT | .00385 | .00000 | .16593 | .00117 | .00100 | .00552 | .00597 | .00067 | .00074 | .00074 | .00048 |

RUN NO. 57/ 0 RW/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P | |
|------|----------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|--------|
| 950 | .053 | .19590 | 2085.70001 | 1167.00000 | 1.19630 | 1.15520 | 1.00110 | .97800 | .83410 | .82410 | .81940 | .81540 |
| 957 | 2.162 | .21040 | 2085.00000 | 1164.80000 | 1.19950 | 1.16120 | 1.01630 | .98980 | .83410 | .82650 | .82180 | .81780 |
| 948 | 4.274 | .20580 | 2084.29999 | 1168.39999 | 1.19900 | 1.15770 | 1.02740 | 1.00050 | .83790 | .83240 | .82770 | .82370 |
| 949 | 6.394 | .21320 | 2085.00000 | 1168.39999 | 1.20070 | 1.15170 | 1.04110 | 1.01980 | .83720 | .83150 | .82680 | .82280 |
| 949 | 8.529 | .23390 | 2085.70001 | 1168.39999 | 1.19610 | 1.15170 | 1.04380 | 1.01980 | .82010 | .81310 | .80840 | .80440 |
| 948 | 10.678 | .23170 | 2085.00000 | 1169.10001 | 1.18730 | 1.14060 | 1.04570 | 1.02340 | .80270 | .79570 | .79100 | .78700 |
| 949 | 12.800 | .22380 | 2085.70001 | 1169.80000 | 1.17710 | 1.12650 | 1.04590 | 1.02350 | .79570 | .78870 | .78400 | .78000 |
| 947 | 14.951 | .23320 | 2085.00000 | 1169.80000 | 1.16190 | 1.13300 | 1.04430 | 1.01970 | .77750 | .77290 | .76820 | .76420 |
| 948 | 17.111 | .23900 | 2085.70001 | 1169.80000 | 1.14330 | 1.09330 | 1.03720 | 1.01540 | .76600 | .76140 | .75670 | .75270 |
| 949 | 19.270 | .23710 | 2087.20001 | 1167.00000 | 1.12850 | 1.07020 | 1.02820 | 1.01170 | .75360 | .74900 | .74430 | .74030 |
| 949 | 21.331 | .20930 | 2085.20001 | 1169.39999 | 1.09710 | 1.04220 | 1.01290 | 1.00170 | .74480 | .74020 | .73550 | .73150 |
| 949 | 23.467 | .20930 | 2086.39999 | 1169.10001 | 1.06560 | .98520 | .95560 | .93690 | .71480 | .71020 | .70550 | .70150 |
| 949 | 25.549 | .20950 | 2086.39999 | 1169.10001 | 1.03800 | .98520 | .97820 | .97000 | .68840 | .68380 | .67910 | .67510 |
| 949 | 26.942 | .17170 | 2086.39999 | 1169.39999 | 1.02110 | .97030 | .96930 | .96230 | .68680 | .68220 | .67750 | .67350 |
| | GRADIENT | .00298 | .33171 | .33190 | .00084 | .00059 | .00623 | .00533 | .00090 | .00197 | .00109 | .00109 |

TABULATED DATA - OALB (ARC 11-97-87-094)
ARC 11-97-87-094 OALB ORBITER

(AE7R15) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.0000 IN. YMRP = .0000 IN. YO
BREF = 936.6600 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0506

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

RUN NO. 62/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .980 | .053 | .17530 | 2072.29999 | 1120.60000 | 1.26730 | 1.18650 | 1.02490 | 1.03010 | .78860 | .77150 | .79290 |
| .981 | 2.166 | .19760 | 2075.50000 | 1122.00000 | 1.23050 | 1.18920 | 1.04070 | 1.01140 | .78960 | .77970 | .79420 |
| .980 | 4.277 | .20620 | 2074.39999 | 1121.30000 | 1.18660 | 1.18660 | 1.05360 | 1.02570 | .78890 | .78370 | .79000 |
| .980 | 6.402 | .20880 | 2073.00000 | 1121.30000 | 1.23420 | 1.18530 | 1.05350 | 1.03340 | .78860 | .77800 | .79740 |
| .979 | 8.550 | .23320 | 2077.29999 | 1124.89999 | 1.29740 | 1.17810 | 1.06830 | 1.04150 | .77200 | .77200 | .79210 |
| .978 | 10.706 | .22410 | 2075.79999 | 1122.70000 | 1.21960 | 1.16760 | 1.07021 | 1.04580 | .77110 | .77380 | .77760 |
| .978 | 12.845 | .22860 | 2073.70000 | 1124.20000 | 1.20750 | 1.15060 | 1.06350 | 1.04430 | .76300 | .75160 | .76520 |
| .976 | 14.989 | .26620 | 2075.79999 | 1127.00000 | 1.18930 | 1.13560 | 1.05350 | 1.04110 | .74110 | .72890 | .74390 |
| .990 | 17.169 | .21940 | 2075.79999 | 1122.00000 | 1.17300 | 1.11680 | 1.05860 | 1.03900 | .73140 | .71880 | .72990 |
| .974 | 19.297 | .22070 | 2073.70000 | 1128.50000 | 1.14410 | 1.08870 | 1.04290 | 1.02830 | .74570 | .71930 | .71910 |
| .974 | 21.443 | .20580 | 2075.10000 | 1129.20000 | 1.11940 | 1.06120 | 1.03170 | 1.01730 | .72210 | .72210 | .74790 |
| .976 | 23.539 | .20640 | 2078.70000 | 1128.39999 | 1.08790 | 1.03390 | 1.01150 | 1.00140 | .68590 | .68020 | .66360 |
| .977 | 25.618 | .23350 | 2075.10000 | 1126.30000 | 1.05890 | 1.00330 | .98180 | .98520 | .66400 | .66400 | .61390 |
| .979 | 26.601 | .18450 | 2074.39999 | 1123.39999 | 1.04100 | .99970 | .98340 | .97540 | .64040 | .64040 | .60010 |
| | GRADIENT | .00731 | .49715 | .16571 | .00163 | .00050 | .00679 | .00559 | .00054 | .00283 | .00073 |

RUN NO. 67/ 0 RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| 1.052 | .059 | .20030 | 2041.20000 | 1014.20000 | 1.32100 | 1.27520 | 1.10250 | 1.07380 | .72300 | .70270 | .71880 |
| 1.051 | 2.174 | .21030 | 2040.50000 | 1014.20000 | 1.32320 | 1.27570 | 1.11790 | 1.08330 | .73110 | .70950 | .72290 |
| 1.050 | 4.296 | .21900 | 2040.50000 | 1016.30000 | 1.32470 | 1.27390 | 1.13930 | 1.09490 | .72560 | .70790 | .71900 |
| 1.048 | 6.420 | .22040 | 2041.20000 | 1018.40000 | 1.32180 | 1.26790 | 1.14050 | 1.10710 | .72660 | .71370 | .72110 |
| 1.049 | 8.575 | .22700 | 2040.50000 | 1017.70000 | 1.31720 | 1.26520 | 1.14570 | 1.11470 | .72310 | .71080 | .72250 |
| 1.049 | 10.737 | .23220 | 2041.89999 | 1018.40000 | 1.30560 | 1.24840 | 1.14490 | 1.11850 | .71290 | .70010 | .70770 |
| 1.050 | 12.882 | .22370 | 2041.20000 | 1016.30000 | 1.29480 | 1.23420 | 1.14650 | 1.11840 | .70400 | .67450 | .68950 |
| 1.051 | 15.047 | .22450 | 2042.60000 | 1017.00000 | 1.27640 | 1.21460 | 1.13880 | 1.11260 | .69710 | .66970 | .68440 |
| 1.051 | 17.219 | .21440 | 2041.89999 | 1015.60000 | 1.25390 | 1.19160 | 1.12800 | 1.10480 | .69100 | .66810 | .68450 |
| 1.048 | 19.384 | .21990 | 2041.89999 | 1019.10000 | 1.22410 | 1.16140 | 1.10880 | 1.09210 | .67010 | .64730 | .66470 |
| 1.040 | 21.534 | .20800 | 2041.20000 | 1018.20000 | 1.18800 | 1.12420 | 1.08370 | 1.06910 | .66290 | .63950 | .65910 |
| 1.050 | 23.645 | .21000 | 2043.30000 | 1017.00000 | 1.16630 | 1.10460 | 1.07380 | 1.06310 | .64980 | .62590 | .64930 |
| 1.048 | 25.721 | .21480 | 2042.60000 | 1019.80000 | 1.13800 | 1.06960 | 1.04790 | 1.03820 | .61480 | .57430 | .59220 |
| 1.049 | 26.716 | .19900 | 2042.60000 | 1017.70000 | 1.11510 | 1.05390 | 1.03560 | 1.00160 | .61710 | .56570 | .58810 |
| | GRADIENT | .00441 | .16511 | .19580 | .00087 | .00031 | .00656 | .00498 | .00061 | .00123 | .00005 |

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.6000 IN. YMRP = 0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RUN NO. 72 / 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.100 | .052 | -.1730 | 2015.0000 | 943.98000 | 1.37130 | 1.31650 | 1.13710 | 1.11030 | .72180 | -.70310 | .71230 |
| 1.099 | 2.169 | .19820 | 2014.30000 | 944.67000 | 1.36940 | 1.31700 | 1.15240 | 1.17500 | .71900 | -.70090 | .71330 |
| 1.101 | 4.290 | .21240 | 2015.00000 | 942.58000 | 1.37410 | 1.31830 | 1.16800 | 1.12620 | .71650 | -.70160 | .70950 |
| 1.098 | 6.416 | .21600 | 2014.30000 | 945.37000 | 1.37210 | 1.31010 | 1.17820 | 1.13650 | .71390 | -.70240 | .70520 |
| 1.098 | 8.570 | .22330 | 2016.39999 | 946.78000 | 1.35990 | 1.29510 | 1.17930 | 1.14380 | .71200 | -.69840 | .70050 |
| 1.092 | 10.729 | .22770 | 2015.00000 | 946.08000 | 1.35180 | 1.28290 | 1.18290 | 1.15090 | .70870 | -.69500 | .69500 |
| 1.098 | 12.888 | .22350 | 2015.00000 | 946.08000 | 1.33600 | 1.26560 | 1.17870 | 1.14480 | .70020 | -.67370 | .67970 |
| 1.098 | 15.063 | .22590 | 2015.70000 | 946.78000 | 1.31480 | 1.24180 | 1.16630 | 1.13540 | .69390 | -.65480 | .65570 |
| 1.098 | 17.238 | .21730 | 2017.10001 | 946.78000 | 1.29190 | 1.21620 | 1.15060 | 1.12250 | .67390 | -.72680 | .62600 |
| 1.099 | 19.390 | .20490 | 2016.39999 | 945.39000 | 1.18470 | 1.12620 | 1.10800 | 1.06700 | .66700 | -.71130 | .61020 |
| 1.101 | 21.533 | .20490 | 2018.50000 | 944.71000 | 1.23620 | 1.15660 | 1.09860 | 1.03660 | .67990 | -.67990 | .58180 |
| 1.101 | 25.744 | .21380 | 2017.10001 | 944.00000 | 1.16770 | 1.09320 | 1.02270 | 1.00320 | .62110 | -.56110 | .54740 |
| 1.097 | GRADIENT | .17430 | 2013.60001 | 946.76000 | 1.15410 | 1.07930 | 1.01260 | 1.00520 | .61390 | -.53510 | .54240 |
| | | .00825 | .00013 | -.33058 | .00066 | .00042 | .00729 | .00375 | -.00125 | -.00035 | -.00065 |

RUN NO. 77 / 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.149 | .051 | .20100 | 2002.30000 | 881.89000 | 1.41350 | 1.35000 | 1.17500 | 1.13020 | .70470 | -.68170 | .69500 |
| 1.149 | 2.160 | .22410 | 2002.30000 | 881.20000 | 1.41310 | 1.34840 | 1.19030 | 1.14160 | .70660 | -.68430 | .69680 |
| 1.149 | 4.276 | .20730 | 2003.00000 | 881.90000 | 1.41310 | 1.34750 | 1.20490 | 1.15420 | .70510 | -.68490 | .69260 |
| 1.146 | 6.401 | .22240 | 2002.30000 | 884.68000 | 1.40750 | 1.33070 | 1.21370 | 1.16160 | .70180 | -.68370 | .68370 |
| 1.147 | 8.554 | .22240 | 2003.00000 | 886.07000 | 1.40070 | 1.32040 | 1.21400 | 1.16780 | .70170 | -.68720 | .68800 |
| 1.147 | 10.727 | .22190 | 2003.00000 | 883.98000 | 1.38610 | 1.30600 | 1.21370 | 1.17600 | .69580 | -.67020 | .68010 |
| 1.147 | 12.889 | .20930 | 2003.70000 | 884.69000 | 1.37020 | 1.28780 | 1.20090 | 1.16360 | .67750 | -.65710 | .65710 |
| 1.146 | 15.051 | .22350 | 2002.30000 | 884.69000 | 1.35520 | 1.26950 | 1.18840 | 1.13610 | .67180 | -.64260 | .63900 |
| 1.147 | 17.220 | .20900 | 2004.39999 | 884.69000 | 1.33000 | 1.24160 | 1.13610 | 1.07620 | .65530 | -.64850 | .60720 |
| 1.149 | 19.310 | .21440 | 2003.00001 | 883.30000 | 1.30060 | 1.21240 | 1.10310 | 1.06590 | .65430 | -.65430 | .59898 |
| 1.152 | 21.517 | .19860 | 2004.39999 | 879.82000 | 1.27890 | 1.18280 | 1.07700 | 1.04580 | .64630 | -.60740 | .57250 |
| 1.151 | 23.638 | .20360 | 2003.10001 | 880.52000 | 1.24720 | 1.15410 | 1.05620 | 1.03160 | .64030 | -.57860 | .56770 |
| 1.149 | 25.740 | .20620 | 2003.00000 | 881.90000 | 1.21400 | 1.12980 | 1.02940 | 1.02880 | .62250 | -.54330 | .55000 |
| 1.150 | GRADIENT | .15940 | 2004.39999 | 881.91000 | 1.19600 | 1.10940 | 1.01170 | 1.02060 | .61320 | -.53950 | .54960 |
| | | .00149 | .16577 | .00295 | -.00009 | -.00059 | -.00719 | .00566 | -.00009 | .00076 | -.00057 |

ORIGINAL PAGE IS OF POOR QUALITY

(AETR15) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 50. FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDELAP = -7.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.199 | .045 | .17370 | 2007.89999 | 829.68000 | 1.46910 | 1.40260 | 1.19590 | 1.13990 | .68150 | .65570 | .66260 |
| 1.202 | 2.152 | .23030 | 2007.20000 | 825.51000 | 1.46650 | 1.40000 | 1.21290 | 1.13780 | .68600 | .66410 | .66590 |
| 1.199 | 4.271 | .21440 | 2007.20000 | 828.98000 | 1.46300 | 1.39350 | 1.23060 | 1.16540 | .68470 | .66810 | .66040 |
| 1.198 | 6.393 | .20760 | 2007.20000 | 830.37000 | 1.45670 | 1.38200 | 1.23020 | 1.16220 | .67990 | .66990 | .65120 |
| 1.197 | 8.560 | .21820 | 2006.50000 | 831.06000 | 1.45200 | 1.37180 | 1.23050 | 1.15310 | .67560 | .66480 | .64810 |
| 1.198 | 10.727 | .22680 | 2007.89999 | 830.38000 | 1.43970 | 1.35890 | 1.19890 | 1.10930 | .67200 | .63980 | .64190 |
| 1.196 | 12.878 | .27830 | 2007.20000 | 832.46000 | 1.43140 | 1.33900 | 1.16080 | 1.09860 | .64280 | .64230 | .62410 |
| 1.197 | 15.044 | .22560 | 2007.89999 | 829.68000 | 1.41670 | 1.32160 | 1.14640 | 1.08900 | .65970 | .64230 | .59370 |
| 1.197 | 17.207 | .21570 | 2007.20000 | 831.07000 | 1.38340 | 1.28870 | 1.12270 | 1.07330 | .62340 | .61070 | .56760 |
| 1.194 | 19.362 | .21190 | 2007.20000 | 834.55000 | 1.35330 | 1.25990 | 1.10120 | 1.06630 | .61910 | .60180 | .56280 |
| 1.201 | 21.507 | .20870 | 2007.20000 | 827.69000 | 1.33280 | 1.23980 | 1.08410 | 1.06210 | .61340 | .54180 | .53880 |
| 1.191 | 23.632 | .20310 | 2006.50000 | 837.34000 | 1.29140 | 1.20830 | 1.05260 | 1.04690 | .61990 | .57200 | .55910 |
| 1.192 | 25.741 | .20120 | 2007.89999 | 836.65000 | 1.25820 | 1.17810 | 1.02570 | 1.02910 | .59650 | .51400 | .52060 |
| 1.192 | 26.780 | .20390 | 2006.50000 | 832.45000 | 1.25360 | 1.16870 | 1.02660 | 1.02740 | .60570 | .52540 | .53080 |
| 1.192 | GRADIENT | .00961 | -.16547 | -.16395 | -.00144 | -.00215 | .00881 | .00664 | .00076 | .00293 | -.00052 |

GRADIENT INTERVAL = 4.25 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.298 | .056 | .21900 | 2004.39999 | 725.19000 | 1.56880 | 1.47750 | 1.24860 | 1.17190 | .65100 | .61920 | .62020 |
| 1.298 | 2.1301 | .21640 | 2003.70000 | 724.46000 | 1.56260 | 1.47580 | 1.25600 | 1.16770 | .65440 | .62380 | .62340 |
| 1.298 | 4.248 | .24450 | 2004.39999 | 725.19000 | 1.56000 | 1.46890 | 1.22200 | 1.14020 | .65140 | .63080 | .61870 |
| 1.295 | 6.365 | .20010 | 2004.39999 | 726.67000 | 1.55510 | 1.45900 | 1.20150 | 1.13830 | .64970 | .64260 | .62720 |
| 1.295 | 8.527 | .22450 | 2006.50000 | 728.13000 | 1.54450 | 1.44220 | 1.19610 | 1.13090 | .64280 | .63650 | .60410 |
| 1.295 | 10.694 | .21410 | 2005.10000 | 728.13000 | 1.53460 | 1.42730 | 1.18900 | 1.13220 | .63880 | .63890 | .59610 |
| 1.295 | 12.841 | .21000 | 2005.10000 | 728.13000 | 1.52310 | 1.40480 | 1.17230 | 1.12320 | .62720 | .61130 | .56640 |
| 1.295 | 14.998 | .22900 | 2004.39999 | 728.13000 | 1.51350 | 1.38260 | 1.15850 | 1.11620 | .61680 | .58840 | .54600 |
| 1.295 | 17.167 | .19570 | 2005.10000 | 728.83000 | 1.47450 | 1.35660 | 1.14520 | 1.10520 | .59910 | .59910 | .51140 |
| 1.294 | 19.319 | .20250 | 2004.39999 | 729.53000 | 1.44680 | 1.33460 | 1.12680 | 1.10200 | .59760 | .53790 | .50280 |
| 1.295 | 21.465 | .20120 | 2005.80000 | 729.84000 | 1.41900 | 1.31090 | 1.10050 | 1.09020 | .59290 | .53720 | .49790 |
| 1.295 | 23.593 | .20560 | 2005.80000 | 728.84000 | 1.38480 | 1.28530 | 1.08260 | 1.07460 | .59070 | .50410 | .49010 |
| 1.295 | 25.718 | .22210 | 2006.50000 | 729.54000 | 1.35110 | 1.25840 | 1.06710 | 1.04520 | .58370 | .50410 | .49010 |
| 1.295 | 26.764 | .21470 | 2005.80000 | 728.12000 | 1.33690 | 1.24680 | 1.05890 | 1.03820 | .56670 | .45610 | .46720 |
| 1.295 | GRADIENT | .00607 | .00061 | .00063 | -.00209 | -.00204 | -.00638 | -.00754 | .00000 | .00275 | -.00036 |

GRADIENT INTERVAL = 4.25 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - OAI61 (ARC 11-97-87-094)
ARC 11-97-87-094 OAI61 ORBITER

PARAMETRIC DATA

BETA = .000
AILRON = .000
ELEVON = .000
BOFLAP = -7.170

REFERENCE DATA

SPEE = 2690.0000 SQ.FT.
LRES = 474.8000 IN.
BREF = 936.8800 IN.
SCALE = .0300
XMRP = 1076.6800 IN. X0
YMRP = .0000 IN. Y0
ZMRP = 375.0000 IN. Z0

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|--------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.393 | .017 | .17260 | 2048.29999 | 641.16000 | 1.59050 | 1.57150 | 1.20420 | 1.13300 | .63170 | .59090 | .59500 |
| 1.403 | 2.115 | 2.1540 | 2048.29999 | 641.16000 | 1.67420 | 1.59680 | 1.21970 | 1.14430 | 6.2950 | .59530 | .59890 |
| 1.402 | 4.222 | 2.3980 | 2048.29999 | 641.83000 | 1.67120 | 1.53750 | 1.22130 | 1.15630 | 6.3050 | 6.0410 | .58800 |
| 1.399 | 6.346 | 2.1640 | 2048.29999 | 644.11000 | 1.66080 | 1.53990 | 1.22460 | 1.15780 | 6.2530 | 6.1450 | .58150 |
| 1.397 | 8.495 | 2.0770 | 2048.29999 | 644.84000 | 1.64960 | 1.51790 | 1.21610 | 1.15590 | 6.2130 | 5.9280 | .56740 |
| 1.397 | 10.650 | 1.9940 | 2048.00000 | 646.30000 | 1.63210 | 1.49520 | 1.20760 | 1.14990 | 6.1130 | 5.8130 | .54980 |
| 1.388 | 12.795 | 2.0220 | 2048.29979 | 645.59000 | 1.61880 | 1.47820 | 1.19970 | 1.14470 | 6.0450 | 5.4890 | .52980 |
| 1.399 | 14.958 | 2.2760 | 2049.00000 | 644.83000 | 1.61630 | 1.45200 | 1.18540 | 1.14510 | 5.9730 | 5.4800 | .50570 |
| 1.398 | 17.124 | 1.9910 | 2048.29999 | 644.11000 | 1.60600 | 1.44040 | 1.17480 | 1.14060 | 5.9040 | 5.3040 | .47470 |
| 1.389 | 19.282 | 1.9130 | 2048.29999 | 645.80000 | 1.59620 | 1.41860 | 1.16210 | 1.13150 | 5.8560 | 5.8570 | .46450 |
| 1.397 | 21.427 | 2.0150 | 2049.00000 | 645.30000 | 1.51500 | 1.39750 | 1.13660 | 1.11650 | 5.8560 | 4.6600 | .45600 |
| 1.395 | 23.572 | 2.0850 | 2048.29999 | 647.79000 | 1.48270 | 1.38280 | 1.12260 | 1.09540 | 5.8190 | 4.9530 | .43230 |
| 1.404 | 25.688 | 2.1270 | 2050.39999 | 641.12000 | 1.46310 | 1.34850 | 1.11550 | 1.08700 | 5.6640 | 4.9550 | .43110 |
| 1.396 | 26.748 | 2.2540 | 2048.29999 | 647.05000 | 1.43550 | 1.23700 | 1.09140 | 1.07570 | 5.5330 | 4.9550 | .40167 |
| | | 0.1598 | 0.0000 | .17372 | -.03333 | -.03333 | .00465 | .00554 | -.00028 | .00344 | -.00167 |

GRADIENT INTERVAL = 3.02

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.556 | .042 | -.5920 | 1515.70000 | 380.53000 | 1.83750 | 1.72950 | 1.22230 | 1.15160 | .59130 | .57170 | .56560 |
| 1.556 | 2.029 | -.54070 | 1515.00000 | 380.35000 | 1.84310 | 1.72410 | 1.23540 | 1.16110 | .59910 | 5.7530 | .56040 |
| 1.556 | 4.106 | -.54170 | 1515.00000 | 380.35000 | 1.84030 | 1.71530 | 1.23680 | 1.17270 | 5.8720 | 5.7850 | .56040 |
| 1.556 | 6.177 | -.54160 | 1515.00000 | 380.35000 | 1.82960 | 1.70100 | 1.24740 | 1.17540 | 5.9130 | 5.8390 | .56990 |
| 1.556 | 8.246 | -.54240 | 1515.70000 | 380.53000 | 1.81390 | 1.68970 | 1.24510 | 1.18200 | 5.8990 | 5.8060 | .55870 |
| 1.556 | 10.312 | -.54370 | 1519.89999 | 381.59000 | 1.80760 | 1.66780 | 1.24450 | 1.19290 | 5.8900 | 5.5840 | .54030 |
| 1.556 | 12.354 | -.53940 | 1523.50000 | 382.48000 | 1.79120 | 1.64990 | 1.24590 | 1.19560 | 5.5210 | 5.1130 | .52150 |
| 1.556 | 14.438 | -.53780 | 1525.00000 | 383.01000 | 1.76450 | 1.62940 | 1.22600 | 1.18450 | 5.4020 | 5.1420 | .51300 |
| 1.559 | 16.587 | -.53320 | 1528.39999 | 383.72000 | 1.73730 | 1.60290 | 1.21810 | 1.18260 | 5.3560 | 5.3100 | .49530 |
| 1.556 | 18.733 | -.53080 | 1532.89999 | 384.79000 | 1.70420 | 1.57520 | 1.22210 | 1.16700 | 5.2160 | 5.4420 | .48770 |
| 1.556 | 20.883 | -.53060 | 1536.89999 | 385.85000 | 1.68860 | 1.54690 | 1.22090 | 1.15180 | 5.2350 | 5.2490 | .48560 |
| 1.556 | 22.812 | -.52810 | 1539.00000 | 386.38000 | 1.66970 | 1.51940 | 1.19300 | 1.14180 | 5.0260 | 5.1230 | .48020 |
| 1.556 | 24.876 | -.52490 | 1539.00000 | 386.38000 | 1.65370 | 1.49480 | 1.18740 | 1.12940 | 4.8410 | 4.4670 | .44100 |
| 1.559 | 25.931 | -.51960 | 1537.60000 | 386.03000 | 1.62790 | 1.46790 | 1.18790 | 1.10900 | 4.3280 | 4.4640 | .40550 |
| 1.559 | 27.061 | -.50861 | 17295 | -.00352 | .00067 | -.00352 | .00354 | .00520 | .00143 | .00167 | .00361 |

GRADIENT

(AETR15) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-87-87-094)

ARC 11-87-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA =
AIRLON =

.000 ELEVON = .000
.000 BQFLAP = -7.170

PARAMETRIC DATA

RUN. NO. 328/ 0 RML = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.750 | -.007 | -.35290 | 1649.39999 | 309.58000 | 2.08590 | 1.98090 | 1.29470 | 1.23250 | .56280 | .53760 | .53180 |
| 1.750 | 1.986 | -.35450 | 1649.39999 | 309.58000 | 2.08130 | 1.92210 | 1.31460 | 1.26320 | .56610 | .53400 | .53400 |
| 1.750 | 6.104 | -.35440 | 1650.10001 | 309.72000 | 2.07750 | 1.91100 | 1.31690 | 1.27010 | .56330 | .53090 | .54300 |
| 1.750 | 8.153 | -.35420 | 1649.39999 | 309.58000 | 2.05810 | 1.89600 | 1.32770 | 1.27590 | .53390 | .52530 | .52130 |
| 1.750 | 10.205 | -.35460 | 1649.39999 | 309.58000 | 2.03980 | 1.88410 | 1.32490 | 1.28500 | .52530 | .50670 | .50290 |
| 1.750 | 12.211 | -.35220 | 1649.39999 | 309.58000 | 2.01890 | 1.85320 | 1.32030 | 1.28840 | .51950 | .50670 | .49490 |
| 1.750 | 14.278 | -.36050 | 1650.10001 | 309.72000 | 1.98970 | 1.84090 | 1.32030 | 1.27750 | .51380 | .48670 | .48670 |
| 1.750 | 16.409 | -.34710 | 1649.39999 | 309.58000 | 1.96470 | 1.81980 | 1.30150 | 1.27360 | .49990 | .48640 | .45860 |
| 1.750 | 18.492 | -.34530 | 1650.10001 | 309.72000 | 1.94750 | 1.78210 | 1.30200 | 1.27410 | .49430 | .48570 | .44730 |
| 1.750 | 20.503 | -.33360 | 1649.39999 | 309.58000 | 1.91450 | 1.74560 | 1.29010 | 1.27190 | .48160 | .47800 | .43860 |
| 1.750 | 22.574 | -.33640 | 1649.39999 | 309.58000 | 1.87190 | 1.72760 | 1.27690 | 1.25700 | .45270 | .41150 | .40970 |
| 1.750 | 24.628 | -.33260 | 1650.10001 | 309.72000 | 1.84370 | 1.69780 | 1.25530 | 1.24220 | .42960 | .32180 | .39580 |
| 1.750 | 25.648 | -.32960 | 1649.39999 | 309.58000 | 1.82680 | 1.68760 | 1.24360 | 1.23840 | .41630 | .28220 | .37710 |
| | GRADIENT | -.00080 | .00000 | .00000 | -.00231 | -.00943 | .00998 | .00537 | -.00166 | -.00181 | .00110 |

RUN. NO. 333/ 0 RML = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.997 | -.028 | -.88560 | 1814.89999 | 233.15000 | 2.44850 | 2.17680 | 1.37470 | 1.30850 | .48400 | .46420 | .45210 |
| 1.997 | 2.012 | -.88610 | 1814.89999 | 233.15000 | 2.45350 | 2.16400 | 1.37980 | 1.31360 | .48350 | .45990 | .44850 |
| 1.997 | 4.076 | -.88540 | 1814.89999 | 233.15000 | 2.44780 | 2.14410 | 1.39580 | 1.32350 | .49210 | .46090 | .45790 |
| 1.997 | 6.134 | -.88490 | 1814.10001 | 233.06000 | 2.41660 | 2.13360 | 1.40930 | 1.32790 | .48160 | .45350 | .45800 |
| 1.997 | 10.267 | -.88620 | 1814.89999 | 233.15000 | 2.35970 | 2.09250 | 1.40950 | 1.33040 | .44980 | .42650 | .42650 |
| 1.997 | 12.302 | -.88330 | 1815.60001 | 233.24000 | 2.36970 | 2.07120 | 1.41200 | 1.33370 | .44200 | .40400 | .41720 |
| 1.997 | 13.631 | -.89060 | 1814.10001 | 233.06000 | 2.34850 | 2.04920 | 1.40640 | 1.32620 | .42860 | .37810 | .41470 |
| 1.997 | 15.539 | -.89060 | 1814.10001 | 233.06000 | 2.34850 | 2.04920 | 1.39860 | 1.31420 | .42230 | .36890 | .39400 |
| 1.997 | 18.621 | -.87910 | 1814.89999 | 233.15000 | 2.25630 | 2.01380 | 1.39860 | 1.31370 | .41300 | .35760 | .37360 |
| 1.997 | 20.696 | -.87910 | 1814.89999 | 233.15000 | 2.20660 | 1.95720 | 1.37900 | 1.31050 | .39950 | .35760 | .35060 |
| 1.997 | 22.729 | -.87000 | 1814.89999 | 233.15000 | 2.15290 | 1.91610 | 1.36840 | 1.30300 | .38330 | .33920 | .32880 |
| 1.997 | 25.274 | -.86600 | 1814.89999 | 233.15000 | 2.07810 | 1.83950 | 1.36530 | 1.27950 | .36080 | .30980 | .32880 |
| | GRADIENT | .00003 | .00000 | .00000 | -.00238 | -.00798 | .00516 | .00366 | -.00199 | -.00060 | .00142 |

TABULATED DATA - 0A161 (ARC 11-97-87-694)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
MIRON = .000 EDELAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BPEF = 936.8600 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 3874 0 RVAL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|----------|----------|----------|---------|
| 2.250 | -.126 | -.97880 | 1919.50000 | 166.08000 | 2.76550 | 2.40940 | 1.44630 | 1.37690 | 4.2920 | 3.9660 | 3.7430 |
| 2.250 | 1.863 | -.97710 | 1922.39999 | 166.33000 | 2.75190 | 2.39400 | 1.46590 | 1.38340 | 4.1400 | 4.3680 | 3.6190 |
| 2.250 | 3.911 | -.97660 | 1921.70000 | 166.27000 | 2.73820 | 2.37950 | 1.47690 | 1.38360 | 4.3220 | 3.8890 | 3.6930 |
| 2.250 | 5.951 | -.97690 | 1925.20000 | 166.57000 | 2.71290 | 2.35200 | 1.48480 | 1.38190 | 4.3530 | 3.9410 | 3.9630 |
| 2.250 | 8.013 | -.97830 | 1923.89999 | 166.64000 | 2.73190 | 2.36550 | 1.49340 | 1.38300 | 4.2780 | 3.9320 | 3.8420 |
| 2.250 | 10.060 | -.97810 | 1928.00000 | 166.82000 | 2.71270 | 2.34070 | 1.49280 | 1.39340 | 4.0590 | 3.8480 | 3.7560 |
| 2.250 | 12.090 | -.97720 | 1929.39999 | 166.94000 | 2.68820 | 2.31450 | 1.49390 | 1.39560 | 4.0220 | 3.9460 | 3.6440 |
| 2.250 | 14.167 | -.98110 | 1933.70000 | 167.31000 | 2.67380 | 2.30450 | 1.50560 | 1.39130 | 3.8900 | 3.3940 | 3.5880 |
| 2.250 | 16.292 | -.97820 | 1938.60001 | 167.74000 | 2.62860 | 2.27410 | 1.5160 | 1.39620 | 3.7460 | 3.2730 | 3.4780 |
| 2.250 | 18.356 | -.97630 | 1937.20000 | 167.61000 | 2.59080 | 2.23390 | 1.49730 | 1.38610 | 3.6520 | 3.0930 | 3.6020 |
| 2.250 | 20.377 | -.97500 | 1938.60001 | 167.74000 | 2.55880 | 2.19480 | 1.48830 | 1.40050 | 3.5740 | 3.0260 | 3.4240 |
| 2.250 | 22.448 | -.97700 | 1942.99999 | 168.10000 | 2.58390 | 2.16220 | 1.48910 | 1.39580 | 3.4840 | 3.0510 | 3.3440 |
| 2.250 | 24.497 | -.96800 | 1942.20000 | 168.04000 | 2.45370 | 2.11380 | 1.45930 | 1.37240 | 3.4220 | 2.8860 | 3.0790 |
| 2.250 | 26.543 | -.96410 | 1940.70000 | 167.92000 | -.03390 | -.03390 | -.99980 | -1.12870 | -2.67510 | -2.75290 | -2.7330 |
| 2.250 | GRADIENT | -.09005 | .54058 | .04669 | -.00749 | -.00749 | -.00749 | .00165 | .00076 | -.00204 | .00187 |

RUN NO. 4184 0 RVAL = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | 1.118 | 0.4510 | 1457.70000 | 85.9200 | 3.17940 | 2.81600 | 1.58670 | 1.50150 | 4.7990 | 4.0300 | 3.5530 |
| 2.499 | 2.156 | -.24370 | 1457.70000 | 85.49200 | 3.17320 | 2.81810 | 1.59500 | 1.53270 | 4.7360 | 4.2170 | 3.4280 |
| 2.499 | 4.185 | -.04340 | 1457.70000 | 85.49200 | 3.15280 | 2.80740 | 1.60280 | 1.52580 | 4.4190 | 3.7320 | 3.1080 |
| 2.499 | 6.219 | -.04220 | 1457.70000 | 85.49200 | 3.14030 | 2.79870 | 1.61110 | 1.53410 | 4.6060 | 3.5240 | 3.4110 |
| 2.499 | 8.253 | -.04020 | 1457.70000 | 85.49200 | 3.12960 | 2.77790 | 1.62070 | 1.53540 | 4.4980 | 3.4290 | 3.5980 |
| 2.499 | 10.292 | -.03900 | 1458.39999 | 86.53300 | 3.11530 | 2.76150 | 1.62590 | 1.54430 | 4.3520 | 3.2910 | 3.4570 |
| 2.499 | 12.332 | -.03830 | 1457.70000 | 85.49200 | 3.08500 | 2.72750 | 1.62590 | 1.54690 | 4.2030 | 3.1640 | 3.3100 |
| 2.499 | 14.377 | -.03670 | 1457.70000 | 85.49200 | 3.04760 | 2.69840 | 1.63010 | 1.54490 | 4.0580 | 2.9980 | 3.1640 |
| 2.499 | 16.416 | -.03500 | 1457.70000 | 85.49200 | 3.06620 | 2.67690 | 1.63460 | 1.54950 | 3.9220 | 2.9530 | 3.0990 |
| 2.499 | 18.459 | -.03230 | 1458.39999 | 85.53300 | 2.98820 | 2.63340 | 1.62860 | 1.54790 | 3.6130 | 2.7950 | 3.0440 |
| 2.499 | 20.502 | -.03180 | 1457.00000 | 85.45000 | 2.91700 | 2.58730 | 1.58730 | 1.53070 | 3.6710 | 2.6520 | 2.9640 |
| 2.499 | 22.550 | -.02930 | 1458.39999 | 85.53300 | 2.85990 | 2.55510 | 1.57260 | 1.51600 | 3.6120 | 2.6130 | 2.9040 |
| 2.499 | 24.597 | -.02720 | 1457.70000 | 85.49200 | 2.43648 | 2.43648 | 1.54220 | 1.51800 | 3.5210 | 2.5640 | 2.7100 |
| 2.499 | 26.624 | -.02650 | 1457.70000 | 85.49200 | 2.75370 | 2.43648 | 1.54320 | 1.51830 | 3.5570 | 2.5790 | 2.6930 |
| 2.499 | GRADIENT | -.00042 | .00000 | .00000 | -.00211 | -.00211 | .00347 | .00598 | -.00934 | -.00731 | -.01094 |

REFERENCE DATA

SREF = 2630.0800 SQ.FT. XMRP = 1075.6800 IN. XQ
 LREF = 424.8000 IN. YMRP = 0000.0000 IN. YO
 BRER = 956.6800 IN. ZMRP = 375.0000 IN. ZQ
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 4LRON = .000 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .069 | .14410 | 1975.39999 | 50.68300 | 4.04640 | 3.68960 | 1.78750 | 1.69310 | 4.6560 | .32570 | .30120 |
| 3.040 | 2.090 | .14330 | 1975.39999 | 50.68300 | 4.01750 | 3.59310 | 1.76930 | 1.68520 | 4.2610 | .30680 | .25070 |
| 3.040 | 4.116 | .14200 | 1975.39999 | 50.68300 | 4.02020 | 3.57880 | 1.78830 | 1.69720 | 4.1120 | .29910 | .25360 |
| 3.040 | 6.147 | .14250 | 1977.50000 | 50.73700 | 4.01340 | 3.55500 | 1.80560 | 1.70400 | 4.0940 | .29590 | .25540 |
| 3.040 | 8.173 | .13970 | 1976.80000 | 50.71900 | 3.99840 | 3.54650 | 1.83710 | 1.73920 | 4.2480 | .29890 | .27440 |
| 3.040 | 10.204 | .13900 | 1976.80000 | 50.71900 | 3.99840 | 3.54270 | 1.84920 | 1.74780 | 4.2530 | .30100 | .30100 |
| 3.040 | 12.242 | .13900 | 1976.80000 | 50.71900 | 3.94190 | 3.45840 | 1.85630 | 1.75820 | 4.2550 | .29560 | .29860 |
| 3.040 | 14.289 | .13860 | 1976.80000 | 50.71900 | 3.89580 | 3.41270 | 1.86360 | 1.7670 | 4.2560 | .29050 | .22750 |
| 3.040 | 16.366 | .13600 | 1976.80000 | 50.71900 | 3.85430 | 3.37090 | 1.87300 | 1.77470 | 4.2560 | .28060 | .21410 |
| 3.040 | 18.338 | .13070 | 1976.80000 | 50.71900 | 3.79880 | 3.32410 | 1.88300 | 1.78200 | 4.2570 | .27290 | .22190 |
| 3.040 | 20.373 | .13000 | 1976.80000 | 50.71900 | 3.70120 | 3.24940 | 1.89640 | 1.78930 | 4.2570 | .26470 | .21970 |
| 3.040 | 22.417 | .12840 | 1976.80000 | 50.71900 | 3.65630 | 3.21560 | 1.91640 | 1.79690 | 4.2570 | .25740 | .24220 |
| 3.040 | 24.453 | .12570 | 1976.80000 | 50.71900 | 3.55930 | 3.15730 | 1.93630 | 1.79580 | 4.2570 | .25040 | .23040 |
| 3.040 | 25.483 | .12590 | 1976.80000 | 50.71900 | 3.49350 | 3.10110 | 1.73920 | 1.70660 | 4.2580 | .19310 | .18960 |
| GRADIENT | | .00002 | -.00002 | .00000 | -.00657 | -.00761 | .00020 | .00101 | -.01344 | -.00657 | -.01176 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.499 | -1.170 | .10220 | 2669.20001 | 35.05800 | 4.89440 | 4.29390 | 2.03810 | 1.89680 | 5.2920 | .34250 | .30220 |
| 3.499 | 1.851 | .10040 | 2669.89999 | 35.05700 | 4.89840 | 4.31260 | 2.04520 | 1.91890 | 5.0000 | .33830 | .28780 |
| 3.499 | 3.875 | .09980 | 2669.20001 | 35.05800 | 4.89290 | 4.27190 | 2.04070 | 1.90440 | 4.8080 | .33440 | .27890 |
| 3.499 | 5.898 | .09930 | 2669.89999 | 35.06700 | 4.90140 | 4.27620 | 2.07290 | 1.93170 | 4.7960 | .33840 | .26800 |
| 3.499 | 7.920 | .09930 | 2670.70001 | 35.07600 | 4.84900 | 4.20820 | 2.05480 | 1.9630 | 4.2710 | .27550 | .23500 |
| 3.499 | 9.949 | .09920 | 2669.20001 | 35.08800 | 4.79490 | 4.18030 | 2.04630 | 1.90680 | 4.0110 | .25450 | .22930 |
| 3.499 | 11.977 | .09730 | 2670.70001 | 35.07600 | 4.78250 | 4.15170 | 2.07360 | 1.96540 | 4.2710 | .27060 | .24540 |
| 3.499 | 14.005 | .09250 | 2669.20001 | 35.05800 | 4.71780 | 4.07070 | 2.07360 | 1.93700 | 3.6970 | .22810 | .21800 |
| 3.499 | 16.032 | .09120 | 2670.70001 | 35.07600 | 4.64120 | 3.99370 | 2.05980 | 1.93350 | 3.4730 | .22100 | .21050 |
| 3.499 | 18.064 | .09100 | 2669.50000 | 35.04900 | 4.59270 | 3.93140 | 2.09680 | 1.98060 | 3.2890 | .24250 | .23240 |
| 3.499 | 20.103 | .08880 | 2670.70001 | 35.07600 | 4.50820 | 3.89160 | 2.06240 | 1.94610 | 3.3410 | .22300 | .20780 |
| 3.499 | 22.134 | .08650 | 2669.89999 | 35.06700 | 4.44210 | 3.84680 | 2.06030 | 1.97950 | 3.1160 | .24850 | .23650 |
| 3.499 | 24.170 | .08370 | 2669.89999 | 35.06700 | 4.31440 | 3.77930 | 2.02250 | 1.95680 | 3.6440 | .24840 | .23530 |
| 3.499 | 25.188 | .08260 | 2669.89999 | 35.06700 | 4.24830 | 3.74810 | 1.99470 | 1.93910 | 3.2720 | .22110 | .21090 |
| GRADIENT | | .00059 | -.00006 | -.00000 | -.00040 | -.00544 | .00064 | .00188 | -.01197 | -.00200 | -.00576 |

GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALTRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEE = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 32/ 0 RVAL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|------------|---------|---------|--------|--------|--------|---------|--------|
| .594 | .088 | 2.24440 | 2578.00000 | 2030.60001 | 1.03050 | 1.04610 | .97350 | .98410 | .95080 | .94650 | .95350 |
| .597 | 2.138 | 2.28050 | 2593.60001 | 2037.70000 | 1.03290 | 1.04940 | .97700 | .98750 | .95130 | .94700 | .95510 |
| .597 | 4.199 | 2.29800 | 2593.60001 | 2038.39999 | 1.03500 | 1.05180 | .98030 | .99020 | .94990 | .94610 | .95360 |
| .595 | 6.276 | 2.30490 | 2580.10001 | 2030.60001 | 1.03400 | 1.04950 | .98120 | .99180 | .95070 | .94620 | .95510 |
| .594 | 8.359 | 2.31160 | 2590.10001 | 2038.60001 | 1.03220 | 1.04750 | .98230 | .99280 | .95060 | .94760 | .95510 |
| .594 | 10.474 | 2.32090 | 2580.79999 | 2032.00000 | 1.02690 | 1.04280 | .98040 | .99200 | .94860 | .94570 | .95490 |
| .595 | 12.626 | 2.30900 | 2581.50000 | 2038.60001 | 1.02310 | 1.03670 | .97610 | .98190 | .94800 | .94570 | .95490 |
| .597 | 14.753 | 2.29150 | 2582.20001 | 2029.69999 | 1.01500 | 1.02950 | .97660 | .98200 | .94600 | .94280 | .95060 |
| .597 | 16.893 | 2.28250 | 2582.20001 | 2029.20000 | 1.00720 | 1.01870 | .96940 | .98480 | .94230 | .93750 | .94770 |
| .597 | 19.082 | 2.28580 | 2581.50000 | 2029.20000 | .99400 | 1.00860 | .96900 | .98200 | .94010 | .93750 | .94550 |
| .595 | 21.008 | 2.27740 | 2581.50000 | 2032.00000 | .98270 | .99620 | .96710 | .97940 | .93380 | .93180 | .92680 |
| .595 | 23.175 | 2.26550 | 2582.20001 | 2030.60001 | .96860 | .98200 | .94780 | .96750 | .92910 | .92140 | .92100 |
| .586 | 25.247 | 2.31508 | 2582.20001 | 2031.30000 | .94980 | .96750 | .93630 | .95970 | .91960 | .92250 | .91370 |
| .5971 | 26.145 | 2.34230 | 2582.20001 | 2029.20000 | .94060 | .95910 | .93320 | .95960 | .94310 | .91300 | .91440 |
| | GRADIENT | .01304 | 5.79217 | 1.89635 | .00139 | .00165 | .00165 | .00148 | .00022 | -.00010 | .00002 |

RUN NO. 374 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|------------|---------|---------|--------|--------|---------|--------|--------|
| .698 | .081 | 2.26230 | 2356.60001 | 1701.60081 | 1.04780 | 1.07100 | .96480 | .97670 | .93160 | .92480 | .93800 |
| .699 | 2.134 | 2.29360 | 2312.10001 | 1669.30000 | 1.05090 | 1.07430 | .97120 | .98360 | .93170 | .92560 | .93690 |
| .699 | 4.209 | 2.31000 | 2311.39999 | 1667.60001 | 1.05140 | 1.07490 | .97460 | .98790 | .93120 | .92560 | .93800 |
| .697 | 6.295 | 2.31568 | 2310.70001 | 1670.60000 | 1.05100 | 1.07330 | .97820 | .99180 | .93220 | .92740 | .93800 |
| .699 | 8.411 | 2.31650 | 2311.39999 | 1669.70000 | 1.04990 | 1.07030 | .97880 | .99270 | .93210 | .92910 | .94000 |
| .697 | 10.528 | 2.33410 | 2310.70001 | 1659.80000 | 1.04390 | 1.06520 | .97280 | .99520 | .92900 | .92660 | .93710 |
| .698 | 12.671 | 2.30880 | 2310.70001 | 1671.89999 | 1.03930 | 1.05660 | .97620 | .99230 | .92410 | .93380 | .92980 |
| .696 | 14.812 | 2.30250 | 2311.39999 | 1671.89999 | 1.02628 | 1.04330 | .97070 | .98810 | .92170 | .91900 | .92980 |
| .695 | 16.954 | 2.30570 | 2310.70001 | 1671.20000 | 1.01460 | 1.03340 | .96570 | .98620 | .91630 | .90670 | .92880 |
| .683 | 19.083 | 2.29340 | 2310.70001 | 1672.60001 | .99760 | 1.00700 | .95560 | .97780 | .90770 | .89780 | .90250 |
| .684 | 21.188 | 2.28540 | 2310.70001 | 1674.70000 | .98020 | 1.00130 | .94560 | .97030 | .90110 | .89050 | .89130 |
| .684 | 23.283 | 2.30410 | 2310.70001 | 1674.00000 | .96850 | .98870 | .93190 | .96120 | .89650 | .88180 | .88180 |
| .696 | 25.304 | 2.32600 | 2309.89999 | 1671.89999 | .94230 | .96800 | .92090 | .95060 | .87480 | .86090 | .86180 |
| .696 | 25.222 | 2.37240 | 2309.89999 | 1671.20000 | .92960 | .95770 | .91670 | .94460 | .85560 | .84150 | .84570 |
| .6961 | GRADIENT | .01195 | -10.93241 | -8.28354 | .00087 | .00094 | .00257 | .00271 | -.00010 | .00019 | .00000 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELCYON = .000
 ALBRON = .000 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | RVAL | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PS7/P |
|------|----------|---------|------------|------------|-------------------|---------|---------|--------|--------|--------|--------|--------|
| .759 | .046 | 2.27536 | 2198.20001 | 1444.00000 | 4.23 | 1.07320 | 1.10130 | .95160 | .96790 | .90360 | .90110 | .91300 |
| .756 | 2.130 | 2.28420 | 2198.20001 | 1443.30000 | | 1.07650 | 1.10740 | .95810 | .97910 | .90730 | .90360 | .91670 |
| .759 | 4.224 | 2.30660 | 2198.20001 | 1443.00000 | | 1.07770 | 1.10660 | .96950 | .98460 | .90450 | .90450 | .91690 |
| .756 | 6.336 | 2.30950 | 2198.20001 | 1445.39999 | | 1.08190 | 1.10660 | .97670 | .99310 | .90740 | .90450 | .91680 |
| .757 | 8.455 | 2.31030 | 2198.20001 | 1446.10001 | | 1.07610 | 1.10240 | .97890 | .99620 | .90540 | .90360 | .91760 |
| .757 | 10.589 | 2.31590 | 2198.20001 | 1446.10001 | | 1.07050 | 1.09570 | .98000 | .99910 | .90380 | .90360 | .91690 |
| .756 | 12.722 | 2.31660 | 2198.89999 | 1448.30000 | | 1.06300 | 1.08940 | .97540 | .99750 | .89560 | .89560 | .90990 |
| .756 | 14.872 | 2.30930 | 2198.89999 | 1447.60001 | | 1.04890 | 1.07230 | .97440 | .99810 | .89070 | .89070 | .89680 |
| .757 | 17.050 | 2.31460 | 2198.20001 | 1446.70001 | | 1.03430 | 1.05980 | .97030 | .99590 | .88420 | .88420 | .88930 |
| .759 | 19.178 | 2.30770 | 2198.89999 | 1449.70000 | | 1.01740 | 1.04350 | .96360 | .99140 | .87980 | .87980 | .88400 |
| .756 | 21.276 | 2.30770 | 2198.89999 | 1449.70000 | | .99490 | 1.01740 | .94720 | .97740 | .86390 | .86390 | .86860 |
| .756 | 23.367 | 2.31740 | 2198.60001 | 1449.70000 | | .97090 | .99750 | .93240 | .96720 | .84190 | .84190 | .84540 |
| .755 | 25.373 | 2.31870 | 2198.89999 | 1449.70000 | | .93930 | .97040 | .91680 | .94360 | .80320 | .81100 | .81300 |
| .756 | 26.501 | 2.35920 | 2198.89999 | 1445.39999 | | .93360 | .96340 | .91160 | .94880 | .80200 | .79260 | .80870 |
| | GRADIENT | .00747 | .00002 | .00029 | | .00109 | .00127 | .00428 | .00400 | .00648 | .00081 | .00993 |

| MACH | ALPHA | BETA | PT | RVAL | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PSS/P | PS7/P |
|------|----------|---------|------------|------------|-------------------|---------|---------|--------|---------|--------|--------|--------|
| .847 | .058 | 2.25940 | 2155.10001 | 1347.39999 | 4.22 | 1.09100 | 1.12300 | .96060 | .96920 | .88890 | .88680 | .89950 |
| .850 | 2.141 | 2.26200 | 2155.50000 | 1347.30000 | | 1.09740 | 1.13000 | .96320 | .97930 | .89050 | .89050 | .90280 |
| .848 | 4.241 | 2.30630 | 2155.79999 | 1349.50002 | | 1.09600 | 1.12570 | .97010 | .98700 | .89220 | .89220 | .90210 |
| .845 | 6.353 | 2.31230 | 2155.50000 | 1351.00000 | | 1.09720 | 1.12500 | .97780 | .99380 | .89620 | .89620 | .90170 |
| .847 | 8.473 | 2.31270 | 2155.79999 | 1348.80000 | | 1.09320 | 1.12060 | .98480 | 1.00100 | .89870 | .89870 | .90150 |
| .847 | 10.589 | 2.32410 | 2155.50000 | 1349.50000 | | 1.08700 | 1.11560 | .98637 | 1.00760 | .89640 | .89640 | .89980 |
| .846 | 12.750 | 2.31460 | 2157.20001 | 1356.20000 | | 1.07990 | 1.10590 | .98910 | 1.00640 | .89820 | .89820 | .90220 |
| .847 | 14.901 | 2.31980 | 2155.50000 | 1348.80000 | | 1.06500 | 1.09240 | .99210 | 1.00690 | .89730 | .89730 | .89700 |
| .849 | 17.081 | 2.32770 | 2157.20001 | 1348.10001 | | 1.04960 | 1.07690 | .97540 | 1.00260 | .89110 | .89110 | .87250 |
| .845 | 19.219 | 2.32040 | 2157.20001 | 1353.10001 | | 1.02540 | 1.05270 | .96266 | .99210 | .88470 | .88470 | .85700 |
| .846 | 21.320 | 2.31050 | 2157.20001 | 1350.89999 | | 1.00390 | 1.03160 | .95160 | .98860 | .87950 | .87950 | .86050 |
| .844 | 23.400 | 2.31750 | 2157.89999 | 1353.80000 | | .97710 | 1.00360 | .93510 | .97140 | .79660 | .79660 | .80990 |
| .844 | 25.423 | 2.33100 | 2157.20001 | 1353.80000 | | .95310 | .92500 | .92510 | .96520 | .78330 | .78330 | .79230 |
| .847 | 26.384 | 2.36460 | 2160.00000 | 1350.20000 | | .93690 | .91170 | .94330 | .95670 | .76580 | .76580 | .76820 |
| | GRADIENT | .01192 | .16663 | .50416 | | .00119 | .00064 | .00486 | .00449 | .00031 | .00057 | .00062 |

TABULATED DATA - OAI61 ← ARC 11-97-87-094
 ARC 11-97-87-094 OAI61 ORBITER

REFERENCE DATA

SPEF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.9600 IN. YMRP = .0000 IN. YO
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RUN NO. 501 0 RVAL = 4.2% GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .801 | .047 | 2.28350 | 2126.79999 | 1256.60001 | 1.11970 | 1.15540 | .96990 | .97550 | .87180 | .86890 | .88040 |
| .802 | 2.158 | 2.28750 | 2125.79999 | 1254.50000 | 1.12500 | 1.16010 | .97500 | .99090 | .87700 | .87440 | .88520 |
| .803 | 4.260 | 2.30720 | 2125.79999 | 1258.80000 | 1.12490 | 1.15940 | .98500 | .99960 | .87440 | .87460 | .89000 |
| .804 | 6.377 | 2.31210 | 2125.79999 | 1257.30000 | 1.12540 | 1.15930 | .99510 | 1.01000 | .87630 | .87450 | .89890 |
| .805 | 8.494 | 2.31310 | 2125.79999 | 1259.50000 | 1.12070 | 1.15390 | .99940 | 1.01470 | .87820 | .87120 | .89580 |
| .806 | 10.626 | 2.32430 | 2127.50000 | 1259.70000 | 1.14410 | 1.14410 | 1.00260 | 1.02360 | .86790 | .86740 | .88278 |
| .807 | 12.750 | 2.29630 | 2126.79999 | 1260.20000 | 1.10760 | 1.13160 | 1.00080 | 1.02230 | .85590 | .84590 | .86820 |
| .808 | 14.944 | 2.32290 | 2127.98000 | 1261.60001 | 1.08840 | 1.11780 | .99690 | 1.02230 | .84670 | .83780 | .85458 |
| .809 | 17.129 | 2.33330 | 2126.79999 | 1260.99999 | 1.07180 | 1.09870 | .99010 | 1.01890 | .83330 | .82530 | .83630 |
| .810 | 19.271 | 2.31650 | 2126.79999 | 1262.39999 | 1.04930 | 1.07660 | .97960 | 1.01290 | .82330 | .81460 | .82580 |
| .811 | 21.382 | 2.32050 | 2126.79999 | 1263.10001 | 1.02960 | 1.05480 | .96740 | 1.00040 | .78890 | .78040 | .79240 |
| .812 | 23.479 | 2.32050 | 2127.50000 | 1263.50000 | 1.00130 | 1.02790 | .95121 | .99210 | .76890 | .75489 | .77650 |
| .813 | 25.502 | 2.32810 | 2127.50000 | 1263.10001 | .96680 | 1.00120 | .93096 | .97640 | .73670 | .72870 | .74130 |
| .814 | 26.446 | 2.38450 | 2126.10001 | 1262.39999 | .95428 | .95090 | .91980 | .96610 | .72260 | .71770 | .72870 |
| .815 | GRADIENT | .00560 | -.00692 | .52110 | .00124 | .00096 | .00596 | .00570 | .00062 | .00135 | .00228 |

RUN NO. 581 0 RVAL = 4.2% GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .851 | .071 | 2.26340 | 2085.39999 | 1166.30000 | 1.15860 | 1.19560 | .98320 | .99650 | .82790 | .81520 | .83770 |
| .852 | 2.173 | 2.29210 | 2083.60001 | 1167.00000 | 1.15950 | 1.19330 | .99710 | 1.00970 | .84200 | .83470 | .84670 |
| .853 | 4.286 | 2.31060 | 2084.29999 | 1167.00000 | 1.16360 | 1.19970 | 1.01070 | 1.02160 | .83240 | .82500 | .84290 |
| .854 | 6.417 | 2.32440 | 2085.70001 | 1169.39999 | 1.16260 | 1.19560 | 1.01890 | 1.03320 | .82250 | .81810 | .84550 |
| .855 | 8.557 | 2.32730 | 2085.70001 | 1167.70000 | 1.16860 | 1.19020 | 1.02430 | 1.04290 | .83610 | .81970 | .85130 |
| .856 | 10.698 | 2.32550 | 2085.00000 | 1169.10001 | 1.14960 | 1.18170 | 1.02660 | 1.04590 | .82650 | .81450 | .84160 |
| .857 | 12.867 | 2.29530 | 2085.70001 | 1168.39999 | 1.13900 | 1.16710 | 1.02580 | 1.04640 | .79650 | .79450 | .80830 |
| .858 | 15.027 | 2.32490 | 2085.39999 | 1166.30000 | 1.12450 | 1.15360 | 1.02360 | 1.04890 | .79550 | .79470 | .81400 |
| .859 | 17.208 | 2.35760 | 2085.70001 | 1169.10001 | 1.10220 | 1.13340 | 1.01350 | 1.04130 | .77320 | .76260 | .78540 |
| .860 | 19.383 | 2.34290 | 2085.70001 | 1171.63339 | 1.08240 | 1.11040 | 1.00200 | 1.03430 | .75370 | .75680 | .78030 |
| .861 | 21.492 | 2.31320 | 2085.39999 | 1167.00000 | 1.05560 | 1.08510 | .99010 | 1.02630 | .74050 | .73780 | .76930 |
| .862 | 23.595 | 2.32290 | 2085.60001 | 1167.00000 | 1.02790 | 1.06010 | .97240 | 1.01560 | .71350 | .7130 | .74790 |
| .863 | 25.630 | 2.35380 | 2087.89999 | 1169.50000 | .99790 | 1.03620 | .95390 | 1.00220 | .65760 | .65760 | .69250 |
| .864 | 26.557 | 2.41010 | 2085.70001 | 1169.80000 | .97120 | 1.01510 | .93420 | .93010 | .67180 | .64990 | .64450 |
| .865 | GRADIENT | .01120 | -.49749 | .18993 | .00119 | .00097 | .00652 | .00593 | .00105 | .00137 | .00123 |

ORIGINAL PAGE IS
 OF POOR QUALITY

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6817 IN. ZMRP = 375.0000 IN. Z0
SCALE = .03#0

BETA = 2.008 ELEVON = .000
ATLROM = .000 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 61/ 0 RVL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|---------|--------|--------|
| .979 | .050 | 2.28580 | 2073.70801 | 1122.00000 | 1.18450 | 1.22480 | 1.00600 | 1.01900 | .78480 | .77130 | .76620 |
| .979 | 2.172 | 2.28950 | 2073.70901 | 1122.70000 | 1.18950 | 1.22990 | 1.02020 | 1.03290 | .79070 | .77950 | .76650 |
| .930 | 4.291 | 2.29910 | 2077.29999 | 1122.70000 | 1.19230 | 1.23110 | 1.03320 | 1.04600 | .78210 | .77240 | .76710 |
| .979 | 6.424 | 2.30300 | 2075.10001 | 1122.70000 | 1.19150 | 1.22660 | 1.04230 | 1.05670 | .78560 | .77390 | .76880 |
| .979 | 8.576 | 2.30690 | 2074.39999 | 1123.39999 | 1.18540 | 1.21970 | 1.04630 | 1.06340 | .77900 | .76530 | .75860 |
| .979 | 10.733 | 2.30980 | 2077.29999 | 1124.00001 | 1.17750 | 1.20950 | 1.04860 | 1.06860 | .77440 | .75800 | .74740 |
| .951 | 12.907 | 2.29380 | 2075.79999 | 1120.60001 | 1.17060 | 1.20340 | 1.05150 | 1.07030 | .76600 | .75000 | .73860 |
| .979 | 14.709 | 2.18390 | 2074.39999 | 1123.39999 | 1.15140 | 1.17810 | 1.04650 | 1.06900 | .75570 | .73970 | .72770 |
| .900 | 15.058 | 2.34370 | 2076.50009 | 1122.70000 | 1.14940 | 1.17980 | 1.04470 | 1.06830 | .75230 | .74178 | .73290 |
| .979 | 17.274 | 2.33400 | 2076.50000 | 1123.39999 | 1.12990 | 1.16020 | 1.03650 | 1.06440 | .74320 | .72820 | .71420 |
| .979 | 19.426 | 2.32120 | 2075.79999 | 1124.89999 | 1.10600 | 1.13520 | 1.02190 | 1.05330 | .73980 | .72320 | .70850 |
| .979 | 21.580 | 2.31780 | 2076.50000 | 1124.20000 | 1.07890 | 1.10910 | 1.00770 | 1.04830 | .72720 | .70940 | .69220 |
| .980 | 23.642 | 2.32100 | 2078.00000 | 1124.10001 | 1.04930 | 1.08430 | .98400 | 1.03300 | .68780 | .66980 | .65330 |
| .979 | 25.695 | 2.33580 | 2075.79999 | 1124.89999 | 1.02490 | 1.04750 | .96400 | 1.01170 | .66450 | .64660 | .62530 |
| .979 | 26.646 | 2.40580 | 2076.50000 | 1123.39999 | .99430 | 1.03760 | .95130 | 1.00490 | .60950 | .59560 | .57540 |
| | GRADIENT | .00614 | .84874 | .16514 | .07182 | .00149 | .00664 | .00637 | -.00084 | .00028 | .00021 |

RUN NO. 68/ 0 RVL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|---------|
| 1.052 | .079 | 2.28230 | 2041.89999 | 1014.20000 | 1.26050 | 1.32390 | 1.08290 | 1.09660 | .72620 | .70440 | .70650 |
| 1.073 | 2.188 | 2.29280 | 2044.00000 | 1013.50000 | 1.26080 | 1.32390 | 1.09870 | 1.10940 | .72360 | .70780 | .70540 |
| 1.079 | 4.308 | 2.30720 | 2040.50000 | 1014.90000 | 1.26270 | 1.32310 | 1.11160 | 1.12150 | .72620 | .70830 | .70320 |
| 1.049 | 6.442 | 2.32200 | 2039.89999 | 1016.30000 | 1.27970 | 1.31510 | 1.11890 | 1.13180 | .71890 | .70540 | .70150 |
| 1.031 | 8.601 | 2.32110 | 2043.30000 | 1016.60000 | 1.27350 | 1.30950 | 1.12530 | 1.14070 | .72150 | .70750 | .70530 |
| 1.050 | 10.757 | 2.32840 | 2040.50000 | 1015.60000 | 1.26430 | 1.29880 | 1.12620 | 1.14510 | .71080 | .70750 | .70540 |
| 1.051 | 12.959 | 2.29680 | 2041.89999 | 1015.60000 | 1.25100 | 1.28290 | 1.12530 | 1.14660 | .70630 | .67840 | .69100 |
| 1.050 | 15.103 | 2.34180 | 2040.50000 | 1015.50000 | 1.23380 | 1.26700 | 1.10880 | 1.13250 | .68520 | .65430 | .66630 |
| 1.049 | 17.331 | 2.33390 | 2043.30000 | 1015.50000 | 1.20650 | 1.25700 | 1.10880 | 1.12930 | .66900 | .64800 | .64800 |
| 1.049 | 19.532 | 2.33370 | 2041.89999 | 1019.10000 | 1.17830 | 1.20970 | 1.08260 | 1.11710 | .67860 | .64910 | .62320 |
| 1.049 | 21.659 | 2.33370 | 2041.20000 | 1019.10000 | 1.14860 | 1.18610 | 1.06490 | 1.10720 | .65399 | .61470 | .62660 |
| 1.051 | 23.723 | 2.34310 | 2045.39999 | 1019.30000 | 1.12510 | 1.15830 | 1.05170 | 1.10060 | .64460 | .57950 | .58280 |
| 1.067 | 25.786 | 2.35580 | 2042.60001 | 1018.60000 | 1.09490 | 1.13100 | 1.02770 | 1.07630 | .62760 | .58648 | .58390 |
| 1.052 | 26.758 | 2.41540 | 2043.30000 | 1014.20000 | 1.06720 | 1.11190 | 1.01280 | 1.05010 | .61470 | .59630 | .59369 |
| | GRADIENT | .00588 | .33217 | .16595 | .00052 | .00052 | .00679 | .00569 | .00000 | .00092 | -.00129 |

(AE7R16) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = 2.00C ELEVON = .000F
AHLRON = .000F BDFLAP = -7.170

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0380

RUN NO. 71 0 RWL = 4.25 GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.099 | .051 | 2.27180 | 2011.50000 | 943.25000 | 1.32410 | 1.36840 | 1.11760 | 1.13280 | .71740 | .68550 | .71140 |
| 1.100 | 2.177 | 2.30070 | 2015.00000 | 943.28000 | 1.32400 | 1.37140 | 1.13180 | 1.14050 | .71699 | .69700 | .71210 |
| 1.100 | 4.302 | 2.29940 | 2015.00000 | 943.28000 | 1.32600 | 1.36890 | 1.14450 | 1.15240 | .71450 | .69590 | .70840 |
| 1.098 | 6.436 | 2.34950 | 2012.89999 | 944.65000 | 1.32190 | 1.36040 | 1.15530 | 1.16380 | .71170 | .69660 | .70240 |
| 1.097 | 8.597 | 2.31960 | 2019.00000 | 946.77000 | 1.31480 | 1.35000 | 1.15950 | 1.17170 | .70800 | .69500 | .69500 |
| 1.097 | 10.752 | 2.31800 | 2015.00000 | 946.77000 | 1.30000 | 1.34490 | 1.15730 | 1.17530 | .70550 | .69390 | .69390 |
| 1.098 | 12.932 | 2.29330 | 2014.30000 | 946.07000 | 1.29820 | 1.31710 | 1.15370 | 1.17230 | .69750 | .68490 | .67750 |
| 1.100 | 15.118 | 2.34400 | 2016.30000 | 944.68000 | 1.26640 | 1.23780 | 1.14370 | 1.16650 | .68620 | .64190 | .65630 |
| 1.099 | 17.340 | 2.34110 | 2015.00000 | 945.37000 | 1.25940 | 1.26680 | 1.12630 | 1.15050 | .67510 | .62300 | .62600 |
| 1.100 | 19.502 | 2.32930 | 2017.80000 | 945.40000 | 1.21330 | 1.24180 | 1.10110 | 1.12750 | .66810 | .61130 | .6210 |
| 1.101 | 21.665 | 2.32240 | 2017.10001 | 944.08000 | 1.18160 | 1.17820 | 1.04198 | 1.07540 | .66230 | .58810 | .59870 |
| 1.099 | 23.717 | 2.32930 | 2017.80000 | 946.10000 | 1.14770 | 1.17820 | .99970 | 1.05030 | .64640 | .57120 | .59080 |
| 1.098 | 25.801 | 2.35580 | 2017.10001 | 945.34000 | 1.11100 | 1.14930 | .97760 | 1.04530 | .61050 | .54140 | .54780 |
| 1.099 | 26.765 | 2.42250 | 2015.70000 | 945.38000 | 1.09240 | 1.13550 | .96410 | 1.04510 | .61390 | .54120 | .58220 |
| | GRADIENT | .00555 | .82376 | .00766 | .00115 | .00012 | .00633 | .00461 | .00065 | .00009 | .00071 |

RUN NO. 78 0 RWL = 4.25 GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.149 | .071 | 2.27590 | 2004.39999 | 882.60000 | 1.35050 | 1.40300 | 1.14640 | 1.16630 | .68690 | .67450 | .68960 |
| 1.151 | 2.175 | 2.30660 | 2008.30000 | 879.80000 | 1.35430 | 1.40880 | 1.16470 | 1.17430 | .68870 | .67610 | .68940 |
| 1.150 | 4.291 | 2.31090 | 2005.00000 | 881.20000 | 1.35490 | 1.40460 | 1.18150 | 1.18370 | .70250 | .68670 | .69190 |
| 1.147 | 6.426 | 2.31480 | 2005.10001 | 884.70000 | 1.35430 | 1.39820 | 1.18830 | 1.18890 | .70160 | .68170 | .68630 |
| 1.148 | 6.591 | 2.32190 | 2004.39999 | 884.00000 | 1.34430 | 1.37810 | 1.18860 | 1.18960 | .69360 | .66600 | .66860 |
| 1.147 | 10.754 | 2.31430 | 2004.39999 | 884.68000 | 1.33270 | 1.36360 | 1.18860 | 1.19080 | .68610 | .65680 | .66620 |
| 1.148 | 12.932 | 2.29340 | 2004.39999 | 884.00000 | 1.32530 | 1.34940 | 1.18420 | 1.18380 | .67930 | .64000 | .65750 |
| 1.150 | 15.107 | 2.34420 | 2004.39999 | 884.21000 | 1.30390 | 1.3190 | 1.17210 | 1.15790 | .66970 | .62520 | .63110 |
| 1.145 | 17.325 | 2.34460 | 2001.60001 | 884.67000 | 1.28370 | 1.30550 | 1.10410 | 1.12360 | .64310 | .61300 | .62130 |
| 1.149 | 19.493 | 2.33280 | 2003.00000 | 886.50000 | 1.28040 | 1.28040 | 1.07270 | 1.10460 | .63920 | .61300 | .61650 |
| 1.149 | 21.626 | 2.32420 | 2003.00000 | 884.98000 | 1.26070 | 1.24400 | 1.03660 | 1.08560 | .63520 | .54590 | .54590 |
| 1.152 | 23.714 | 2.33050 | 2006.50000 | 880.53000 | 1.18980 | 1.21480 | 1.01070 | 1.07680 | .64020 | .57110 | .57550 |
| 1.146 | 25.801 | 2.35380 | 2003.70000 | 883.30000 | 1.15050 | 1.18480 | .97270 | 1.06820 | .63460 | .53620 | .53620 |
| 1.146 | 26.765 | 2.41590 | 2003.70000 | 883.38000 | 1.13110 | 1.17040 | .96480 | 1.06580 | .61800 | .53390 | .55100 |
| | GRADIENT | .00829 | .33115 | .33083 | .00095 | .00038 | .00832 | .00412 | .00085 | .00289 | .00155 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC.
 LREF = 474.8000 IN. YMRP = .0000 IN. YC.
 BREF = 938.6800 IN. ZMRP = 375.0000 IN. ZC
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RUN NO. 81/ 0 RNL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.201 | .050 | 2.29310 | 2005.10001 | 626.19800 | 1.41780 | 1.86410 | 1.17310 | 1.18460 | .68170 | .65360 | .67200 |
| 1.200 | 2.162 | 2.29310 | 2007.89999 | 828.29000 | 1.40950 | 1.46400 | 1.19120 | 1.18390 | .68500 | .65680 | .66240 |
| 1.199 | 4.274 | 2.29660 | 2005.80100 | 828.27000 | 1.40620 | 1.45660 | 1.20160 | 1.19730 | .67890 | .65650 | .65350 |
| 1.197 | 6.420 | 2.30700 | 2007.89999 | 831.77000 | 1.40250 | 1.44610 | 1.21280 | 1.21070 | .68510 | .66730 | .65350 |
| 1.196 | 8.583 | 2.31680 | 2007.89999 | 830.58000 | 1.39480 | 1.43760 | 1.19720 | 1.18800 | .67860 | .65380 | .64670 |
| 1.195 | 10.748 | 2.32620 | 2006.50000 | 832.45000 | 1.38380 | 1.42310 | 1.18320 | 1.15230 | .66870 | .62700 | .63970 |
| 1.197 | 12.928 | 2.29580 | 2011.50000 | 833.19000 | 1.38130 | 1.40350 | 1.11240 | 1.13440 | .65300 | .60330 | .62040 |
| 1.196 | 15.098 | 2.33360 | 2006.50000 | 831.75000 | 1.36550 | 1.38530 | 1.10900 | 1.14450 | .59210 | .59190 | .59190 |
| 1.195 | 17.320 | 2.33340 | 2007.89999 | 832.47000 | 1.32510 | 1.35610 | 1.08540 | 1.13020 | .63260 | .56660 | .57650 |
| 1.194 | 19.481 | 2.32490 | 2009.39999 | 834.57000 | 1.29570 | 1.32480 | 1.05820 | 1.11270 | .62570 | .54310 | .56430 |
| 1.189 | 21.601 | 2.30580 | 2005.80000 | 838.75000 | 1.26160 | 1.29540 | 1.04140 | 1.10770 | .56430 | .56520 | .56430 |
| 1.191 | 23.709 | 2.32890 | 2010.10001 | 838.75000 | 1.22980 | 1.27210 | 1.00860 | 1.03580 | .61810 | .55300 | .56180 |
| 1.188 | 25.797 | 2.35140 | 2010.10001 | 841.54000 | 1.20180 | 1.24550 | .98050 | 1.08180 | .60320 | .50880 | .50900 |
| 1.194 | 26.822 | 2.35710 | 2007.20000 | 834.55000 | 1.19620 | 1.23260 | .97270 | 1.07170 | .59800 | .49840 | .49910 |
| | GRADIENT | .00085 | .15575 | .48245 | -.00275 | -.00178 | .00675 | -.00301 | -.00059 | .00059 | -.00438 |

RUN NO. 88/ 0 RNL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.297 | .056 | 2.28890 | 2005.10001 | 726.66000 | 1.50980 | 1.54630 | 1.21490 | 1.20900 | .64550 | .60710 | .63660 |
| 1.296 | 2.147 | 2.32100 | 2003.70000 | 724.46000 | 1.49440 | 1.54720 | 1.21060 | 1.19860 | .64840 | .61240 | .62450 |
| 1.295 | 4.258 | 2.32850 | 2003.70000 | 726.68000 | 1.49230 | 1.53840 | 1.16550 | 1.17800 | .64730 | .61630 | .61630 |
| 1.296 | 6.390 | 2.30360 | 2004.39999 | 727.40000 | 1.48670 | 1.52230 | 1.15640 | 1.17910 | .65200 | .61670 | .60730 |
| 1.296 | 8.552 | 2.31400 | 2003.70000 | 727.41000 | 1.47910 | 1.51510 | 1.15280 | 1.18140 | .64470 | .62500 | .60530 |
| 1.294 | 10.717 | 2.31550 | 2004.39999 | 728.85000 | 1.46010 | 1.49450 | 1.14020 | 1.17880 | .64010 | .61760 | .59110 |
| 1.294 | 12.896 | 2.30060 | 2004.39999 | 728.83000 | 1.46180 | 1.47720 | 1.12710 | 1.16930 | .62940 | .58770 | .56850 |
| 1.294 | 15.051 | 2.30930 | 2004.39999 | 728.83000 | 1.44010 | 1.45380 | 1.11010 | 1.15940 | .61730 | .56190 | .54400 |
| 1.294 | 17.276 | 2.35860 | 2004.70000 | 728.82000 | 1.40880 | 1.43280 | 1.09340 | 1.15410 | .61060 | .52590 | .52930 |
| 1.293 | 19.434 | 2.32980 | 2004.39999 | 730.28000 | 1.37730 | 1.40460 | 1.06840 | 1.14960 | .60200 | .50850 | .51660 |
| 1.291 | 21.565 | 2.32000 | 2005.10001 | 733.01000 | 1.34750 | 1.38110 | 1.03980 | 1.14810 | .59580 | .50390 | .50800 |
| 1.293 | 23.673 | 2.32360 | 2005.80000 | 728.84000 | 1.31840 | 1.35820 | 1.01980 | 1.13650 | .59870 | .51140 | .51510 |
| 1.292 | 25.779 | 2.33450 | 2006.50000 | 732.33000 | 1.28440 | 1.32810 | 1.00820 | 1.11850 | .57780 | .47600 | .47140 |
| 1.293 | 26.812 | 2.38020 | 2006.50000 | 731.63000 | 1.26860 | 1.31290 | .98300 | 1.10020 | .45370 | .45370 | .46400 |
| | GRADIENT | .00956 | -.33258 | .00642 | -.00416 | -.00188 | -.01153 | -.00738 | .00043 | .00195 | -.00483 |

TABULATED DATA - OAI161 (ARC 11-97-87-094)

ARC 11-97-87-094 OAI161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XORRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YORRP = .0000 IN. YQ
 SPREF = 936.6800 IN. ZORRP = 375.0000 IN. ZQ
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RUN NO. 917 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|---------|---------|
| 1.401 | .030 | 2.25650 | 2029.89999 | 637.09000 | 1.62060 | 1.64290 | 1.15330 | 1.18370 | .62260 | .57920 | .61230 |
| 1.401 | 2.122 | 2.27530 | 2029.89999 | 637.09000 | 1.60360 | 1.64260 | 1.15530 | 1.19430 | .62370 | .57870 | .61450 |
| 1.400 | 4.236 | 2.34330 | 2029.89999 | 637.82000 | 1.59750 | 1.62950 | 1.17760 | 1.20660 | .62360 | .57690 | .60090 |
| 1.400 | 6.364 | 2.33140 | 2029.89999 | 637.82000 | 1.59420 | 1.61880 | 1.18330 | 1.21400 | .62930 | .57870 | .58290 |
| 1.399 | 8.519 | 2.31730 | 2030.60000 | 639.28000 | 1.58030 | 1.60090 | 1.17060 | 1.21450 | .62870 | .58930 | .57310 |
| 1.397 | 10.672 | 2.31590 | 2031.30000 | 641.48000 | 1.56020 | 1.57300 | 1.15640 | 1.20710 | .61350 | .58510 | .55510 |
| 1.399 | 12.843 | 2.30140 | 2032.60000 | 639.28000 | 1.55610 | 1.56390 | 1.15150 | 1.20490 | .60400 | .61240 | .53940 |
| 1.398 | 15.006 | 2.32310 | 2031.30000 | 640.01000 | 1.54940 | 1.53630 | 1.13490 | 1.20490 | .60130 | .56720 | .52590 |
| 1.399 | 17.225 | 2.34430 | 2029.89999 | 638.58000 | 1.50010 | 1.51830 | 1.11030 | 1.20290 | .59080 | .54630 | .51610 |
| 1.401 | 19.383 | 2.31560 | 2050.39999 | 643.33000 | 1.47780 | 1.48710 | 1.09050 | 1.19300 | .58998 | .50570 | .49850 |
| 1.397 | 21.520 | 2.29020 | 2091.79999 | 646.99000 | 1.44260 | 1.47090 | 1.06780 | 1.17510 | .59040 | .48710 | .49810 |
| 1.399 | 23.636 | 2.33630 | 2049.00000 | 644.83000 | 1.41650 | 1.44570 | 1.05970 | 1.16320 | .58980 | .51120 | .47360 |
| 1.399 | 25.743 | 2.33880 | 2049.00000 | 644.83000 | 1.37840 | 1.42110 | 1.03360 | 1.15280 | .56220 | .45610 | .44640 |
| 1.395 | | 2.31700 | 2043.30000 | 646.41000 | 1.36020 | 1.40260 | 1.01940 | 1.14360 | .55300 | .43040 | .43690 |
| | GRADIENT | .02066 | .00000 | .17386 | -.00548 | -.00324 | .00578 | -.00549 | .00076 | -.00053 | -.00264 |

RUN NO. 3247 0 RNAL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|---------|--------|
| 1.556 | .034 | 1.52120 | 1536.20000 | 385.67000 | 1.76010 | 1.81190 | 1.18320 | 1.22670 | .58200 | .55900 | .57230 |
| 1.556 | 2.023 | 1.53170 | 1536.20000 | 385.67000 | 1.75220 | 1.80180 | 1.18880 | 1.23650 | .57950 | .55798 | .58890 |
| 1.565 | 4.100 | 1.52240 | 1536.20000 | 385.67000 | 1.75300 | 1.79010 | 1.19420 | 1.23950 | .58330 | .55930 | .58630 |
| 1.556 | 6.172 | 1.52130 | 1536.89999 | 385.85000 | 1.74370 | 1.77320 | 1.20090 | 1.25000 | .58850 | .56140 | .56970 |
| 1.556 | 8.243 | 1.52190 | 1536.89999 | 385.85000 | 1.74070 | 1.75630 | 1.19730 | 1.25190 | .57560 | .57380 | .56550 |
| 1.556 | 10.308 | 1.52840 | 1536.20000 | 385.67000 | 1.72340 | 1.73980 | 1.19510 | 1.25250 | .59200 | .57400 | .52220 |
| 1.556 | 12.355 | 1.52950 | 1536.89999 | 385.85000 | 1.70010 | 1.72390 | 1.19690 | 1.25610 | .54790 | .50330 | .50880 |
| 1.556 | 14.431 | 1.52840 | 1536.89999 | 385.85000 | 1.67770 | 1.70650 | 1.17820 | 1.25880 | .53870 | .49270 | .47690 |
| 1.556 | 16.574 | 1.53150 | 1536.89999 | 385.85000 | 1.65420 | 1.69130 | 1.17200 | 1.25400 | .53498 | .49270 | .46940 |
| 1.556 | 18.659 | 1.53340 | 1536.89999 | 385.85000 | 1.63670 | 1.67200 | 1.15060 | 1.25000 | .52460 | .48560 | .46560 |
| 1.556 | 20.700 | 1.54050 | 1537.60000 | 386.03000 | 1.61380 | 1.65690 | 1.12760 | 1.23880 | .52080 | .53460 | .44908 |
| 1.556 | 22.789 | 1.54370 | 1542.60000 | 387.27000 | 1.57620 | 1.63190 | 1.11700 | 1.22120 | .49340 | .50030 | .44908 |
| 1.556 | 24.854 | 1.54930 | 1544.70000 | 387.81000 | 1.55130 | 1.61900 | 1.10010 | 1.19850 | .46710 | .42780 | .43650 |
| 1.556 | 26.982 | 1.55150 | 1543.30000 | 387.45000 | 1.53530 | 1.58830 | 1.09060 | 1.19280 | .41720 | .40398 | .43058 |
| | GRADIENT | .00626 | -.00000 | -.00173 | -.00278 | -.00536 | .00278 | -.00316 | .00033 | -.00014 | .00393 |

(AETR161 (02 AUG 76)

TABULATED DATA - QAI61 (ARC 11-97-87-094)

ARC 11-97-87-094 QAI61 ORBITER

PARAMETRIC DATA

REFERENCE DATA

SREF = 2699.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 AYLRON = .000 BOFLAP = -7.170

RUN NO. 3271 0 RVL = 3.06 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.750 | -.019 | 1.70660 | 1647.89999 | 309.32000 | 1.98150 | 2.05840 | 1.22440 | 1.32550 | 55310 | 53620 | 51930 |
| 1.750 | 1.984 | 1.69880 | 1643.32999 | 309.58000 | 1.98730 | 2.04330 | 1.25760 | 1.32600 | 55050 | 53040 | 52130 |
| 1.750 | 4.028 | 1.70770 | 1649.39999 | 309.58000 | 1.98930 | 2.03830 | 1.24620 | 1.33200 | 55200 | 52830 | 53080 |
| 1.750 | 6.082 | 1.70350 | 1643.39999 | 309.58000 | 1.97960 | 2.02250 | 1.25420 | 1.34210 | 55780 | 52230 | 53660 |
| 1.750 | 8.114 | 1.71830 | 1643.39999 | 309.58000 | 1.96870 | 2.00750 | 1.25640 | 1.34210 | 54460 | 51570 | 53260 |
| 1.750 | 10.153 | 1.70540 | 1650.10001 | 309.72000 | 1.94350 | 1.98350 | 1.25890 | 1.34610 | 53730 | 50920 | 53100 |
| 1.750 | 12.175 | 1.70820 | 1649.39999 | 309.58000 | 1.93010 | 1.96430 | 1.24620 | 1.35750 | 52760 | 49520 | 52780 |
| 1.750 | 16.357 | 1.71230 | 1649.39999 | 309.58000 | 1.86900 | 1.91580 | 1.20050 | 1.35950 | 48530 | 46530 | 45780 |
| 1.750 | 18.461 | 1.71570 | 1650.10001 | 309.72000 | 1.84600 | 1.89330 | 1.18290 | 1.35150 | 46740 | 44960 | 44300 |
| 1.750 | 20.482 | 1.71980 | 1650.10001 | 309.72000 | 1.80180 | 1.87300 | 1.17090 | 1.34420 | 45120 | 43780 | 42850 |
| 1.750 | 22.560 | 1.72550 | 1650.10001 | 309.72000 | 1.77400 | 1.83950 | 1.17090 | 1.32700 | 42850 | 41830 | 41750 |
| 1.750 | 24.622 | 1.72910 | 1649.39999 | 309.58000 | 1.72330 | 1.80710 | 1.17090 | 1.32700 | 40500 | 40500 | 40500 |
| 1.750 | 25.647 | 1.73320 | 1648.62001 | 309.45000 | 1.59820 | 1.79070 | 1.17080 | 1.32430 | 38850 | 38850 | 40340 |
| | GRADIENT | .00330 | .36810 | .05380 | .00197 | -.00694 | .00539 | .00241 | -.00027 | -.00393 | .00285 |

RUN NO. 3347 0 RVL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.997 | .014 | 1.20880 | 1816.30000 | 233.33000 | 2.26530 | 2.29630 | 1.28370 | 1.40530 | 47820 | 47020 | 43148 |
| 1.997 | 2.037 | 1.20840 | 1816.30000 | 233.33000 | 2.26070 | 2.28720 | 1.29050 | 1.41290 | 46940 | 45420 | 43290 |
| 1.997 | 4.103 | 1.20720 | 1816.30000 | 233.33000 | 2.26858 | 2.26320 | 1.29730 | 1.41820 | 47450 | 43190 | 43800 |
| 1.997 | 5.146 | 1.20710 | 1817.00000 | 233.42000 | 2.26310 | 2.25860 | 1.29990 | 1.42000 | 47730 | 43400 | 45000 |
| 1.997 | 8.228 | 1.20850 | 1817.00000 | 233.51000 | 2.24010 | 2.23860 | 1.30320 | 1.42480 | 45840 | 41280 | 43330 |
| 1.997 | 10.267 | 1.20960 | 1816.30000 | 233.33000 | 2.22930 | 2.20870 | 1.29580 | 1.4270 | 44940 | 41360 | 42200 |
| 1.997 | 12.322 | 1.21140 | 1817.00000 | 233.51000 | 2.21850 | 2.19900 | 1.28810 | 1.42780 | 42530 | 37970 | 40480 |
| 1.997 | 14.336 | 1.21420 | 1817.00000 | 233.42000 | 2.21580 | 2.16980 | 1.28320 | 1.42150 | 41600 | 37570 | 41680 |
| 1.997 | 15.541 | 1.22150 | 1817.00000 | 233.42000 | 2.12150 | 2.14870 | 1.27780 | 1.41980 | 41880 | 36860 | 39370 |
| 1.997 | 18.628 | 1.40080 | 1817.00000 | 233.42000 | 2.08350 | 2.11070 | 1.26950 | 1.41090 | 40540 | 35670 | 37880 |
| 1.997 | 20.647 | 1.40560 | 1816.30000 | 233.33000 | 2.08410 | 2.08410 | 1.25300 | 1.42120 | 39380 | 35670 | 34200 |
| 1.997 | 22.734 | 1.41030 | 1816.30000 | 233.33000 | 2.05230 | 2.04410 | 1.22710 | 1.42650 | 37710 | 32760 | 34740 |
| 1.997 | 24.790 | 1.41460 | 1816.30000 | 233.33000 | 1.98560 | 2.05450 | 1.20460 | 1.40460 | 37290 | 31890 | 32880 |
| 1.997 | 26.025 | 1.41520 | 1816.30000 | 233.33000 | 1.91740 | 2.00330 | 1.20460 | 1.40310 | 37520 | 32880 | 33560 |
| | GRADIENT | -.00039 | .00002 | .00000 | .00079 | -.00881 | .00333 | .00315 | -.00106 | -.00937 | .00162 |

TABULATED DATA - 0A161 (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER

(AETRI8) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AULRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2693.0000 SQ. FT. XMRP = 1076.6800 IN. X0
LREF = 473.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 346/ 0 RNV/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00.

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 2.249 | .102 | 1.07220 | 2070.20001 | 179.27000 | 2.57240 | 2.60300 | 1.34980 | 1.45160 | 4.3110 | 4.2620 | 37080 |
| 2.249 | 1.873 | 1.07130 | 2070.20001 | 179.27000 | 2.56678 | 2.60620 | 1.35550 | 1.47130 | 4.2380 | 4.2780 | 37140 |
| 2.249 | 3.927 | 1.07630 | 2070.89999 | 179.33000 | 2.55130 | 2.58380 | 1.36860 | 1.43140 | 4.1900 | 4.1280 | 36650 |
| 2.249 | 5.986 | 1.07910 | 2070.89999 | 179.33000 | 2.54310 | 2.54880 | 1.38280 | 1.48960 | 4.3360 | 3.8220 | 38710 |
| 2.249 | 8.039 | 1.08380 | 2070.20001 | 179.27000 | 2.53700 | 2.54880 | 1.39230 | 1.50300 | 4.4100 | 3.8270 | 38170 |
| 2.249 | 10.091 | 1.07160 | 2070.20001 | 179.27000 | 2.51660 | 2.53430 | 1.39790 | 1.50380 | 4.0660 | 3.5320 | 36800 |
| 2.249 | 12.128 | 1.03260 | 2070.89999 | 179.33000 | 2.49680 | 2.50280 | 1.40160 | 1.49650 | 3.8810 | 3.4260 | 35250 |
| 2.249 | 14.207 | 1.09580 | 2070.20001 | 179.27000 | 2.47260 | 2.48480 | 1.40220 | 1.49810 | 3.7970 | 3.2730 | 35820 |
| 2.249 | 16.335 | 1.07460 | 2070.20001 | 179.27000 | 2.45550 | 2.47360 | 1.40390 | 1.49980 | 3.6410 | 3.1460 | 35020 |
| 2.249 | 18.429 | 1.08210 | 2070.20001 | 179.27000 | 2.43760 | 2.43760 | 1.39320 | 1.49700 | 2.9720 | 2.8720 | 31800 |
| 2.249 | 20.501 | 1.02700 | 2070.20001 | 179.27000 | 2.41830 | 2.33510 | 1.36060 | 1.49810 | 3.4610 | 2.8770 | 30850 |
| 2.249 | 22.559 | 1.02700 | 2070.20001 | 179.27000 | 2.39710 | 2.28290 | 1.35170 | 1.48920 | 3.3920 | 2.7790 | 30120 |
| 2.249 | 24.577 | 1.09100 | 2070.20001 | 179.27000 | 2.27450 | 2.25730 | 1.31930 | 1.49110 | 3.3380 | 2.7350 | 30120 |
| GRADIENT | | .00103 | .17485 | .01499 | -.00525 | -.00479 | .00468 | .00738 | -.00300 | -.00356 | -.00108 |

RUN NO. 419/ 0 RNV/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00.

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|----------|---------|---------|---------|---------|---------|---------|--------|
| 2.499 | .118 | 2.10010 | 1461.89999 | 85.74000 | 2.90990 | 3.07570 | 1.42130 | 1.63280 | 4.8430 | 3.8480 | 34740 |
| 2.499 | 2.152 | 2.08650 | 1464.00060 | 85.86500 | 2.91740 | 3.10350 | 1.44330 | 1.66660 | 4.9010 | 4.0330 | 35370 |
| 2.499 | 4.186 | 2.08010 | 1463.30000 | 85.82300 | 2.91170 | 3.07290 | 1.45260 | 1.68000 | 4.8130 | 3.6970 | 35320 |
| 2.499 | 6.220 | 2.07150 | 1463.30000 | 85.82300 | 2.89030 | 3.04330 | 1.45720 | 1.68670 | 4.8120 | 3.6330 | 36120 |
| 2.499 | 8.256 | 2.06930 | 1463.30000 | 85.82300 | 2.86200 | 3.02470 | 1.46750 | 1.70540 | 4.8740 | 3.6350 | 36540 |
| 2.499 | 10.295 | 2.06410 | 1463.30000 | 85.82300 | 2.85400 | 2.99060 | 1.45060 | 1.69070 | 4.4050 | 3.2460 | 33290 |
| 2.499 | 12.339 | 2.05630 | 1463.30000 | 85.82300 | 2.83690 | 2.97540 | 1.45800 | 1.72260 | 4.3680 | 3.2930 | 33340 |
| 2.499 | 14.379 | 2.05650 | 1463.30000 | 85.82300 | 2.79890 | 2.94370 | 1.44600 | 1.70980 | 4.0970 | 2.9800 | 30550 |
| 2.499 | 16.426 | 2.05690 | 1463.30000 | 85.94800 | 2.76100 | 2.90980 | 1.44020 | 1.70270 | 3.9650 | 2.8690 | 28690 |
| 2.499 | 18.468 | 2.05760 | 1464.00000 | 85.86500 | 2.72890 | 2.88190 | 1.44660 | 1.71340 | 4.0010 | 2.8630 | 28640 |
| 2.499 | 20.509 | 2.06200 | 1465.50000 | 85.94800 | 2.66940 | 2.81560 | 1.42740 | 1.70460 | 3.8890 | 2.7510 | 29580 |
| 2.499 | 22.558 | 2.06500 | 1464.80000 | 85.90600 | 2.59270 | 2.73950 | 1.40370 | 1.69730 | 3.5900 | 2.5900 | 27670 |
| 2.499 | 24.605 | 2.07120 | 1464.80000 | 85.94500 | 2.52560 | 2.67870 | 1.37310 | 1.68550 | 3.5710 | 2.3920 | 25370 |
| 2.499 | 25.626 | 2.07780 | 1465.50000 | 85.94900 | 2.46870 | 2.56870 | 1.35500 | 1.66600 | 3.5990 | 2.3780 | 23370 |
| GRADIENT | | -.00491 | .34413 | .02040 | .00844 | -.00869 | .00769 | .01160 | -.00074 | -.00371 | .00143 |

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OF POOR QUALITY

(AE7R16) (02 AUG 76)

TAGULATED DATA - 0A16I (ARC 11-97-87-094)

ARC 11-97-87-094 0A16I ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0800 IN. YO
 BRFF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVOM = .000
 AILRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|---------|------------|---------|----------|---------|---------|---------|---------|---------|---------|--------|
| 3.499 | 2.2290 | 1971.20000 | 3.64260 | 50.57400 | 1.57790 | 1.90800 | 1.90800 | 1.90800 | 4.7880 | 3.2430 | .28220 |
| 3.499 | 2.1920 | 1972.60001 | 3.61900 | 50.61000 | 1.57330 | 1.90660 | 1.90660 | 1.90660 | 4.4690 | 3.1010 | .27500 |
| 3.499 | 2.20930 | 1972.60001 | 3.64180 | 50.61000 | 1.62030 | 1.95660 | 1.95660 | 1.95660 | 4.7470 | 3.3910 | .29950 |
| 3.499 | 4.132 | 1974.70000 | 3.91340 | 50.66500 | 1.60990 | 1.95650 | 1.95650 | 1.95650 | 4.5120 | 3.1910 | .29010 |
| 3.499 | 6.164 | 1974.70000 | 3.80870 | 50.64700 | 1.61930 | 1.95260 | 1.95260 | 1.95260 | 4.3690 | 3.1960 | .28110 |
| 3.499 | 8.197 | 1974.70000 | 3.80870 | 50.64700 | 1.62800 | 1.97470 | 1.97470 | 1.97470 | 4.2330 | 2.8678 | .27270 |
| 3.499 | 10.228 | 1974.70000 | 3.80820 | 50.64700 | 1.62800 | 1.97470 | 1.97470 | 1.97470 | 3.6950 | 2.3270 | .26920 |
| 3.499 | 12.264 | 1974.70000 | 3.53570 | 50.64700 | 1.62800 | 1.97470 | 1.97470 | 1.97470 | 3.6950 | 2.3270 | .26920 |
| 3.499 | 14.295 | 1974.70000 | 3.49260 | 50.64700 | 1.59150 | 1.96330 | 1.96330 | 1.96330 | 3.4980 | 2.0740 | .15590 |
| 3.499 | 16.325 | 1974.70000 | 3.73070 | 50.64700 | 1.62730 | 1.98620 | 1.98620 | 1.98620 | 3.5480 | 2.3270 | .23270 |
| 3.499 | 18.355 | 1974.70000 | 3.40250 | 50.64700 | 1.62730 | 1.98620 | 1.98620 | 1.98620 | 3.5480 | 2.3270 | .23270 |
| 3.499 | 20.401 | 1974.70000 | 3.33120 | 50.64700 | 1.57408 | 1.97730 | 1.97730 | 1.97730 | 3.4630 | 2.2570 | .24110 |
| 3.499 | 22.442 | 1974.70000 | 3.52200 | 50.64700 | 1.54600 | 1.97070 | 1.97070 | 1.97070 | 3.2460 | 2.180 | .20180 |
| 3.499 | 24.478 | 1974.70000 | 3.47390 | 50.64700 | 1.53720 | 1.96980 | 1.96980 | 1.96980 | 3.2770 | 2.1790 | .20040 |
| 3.499 | 26.497 | 1974.70000 | 3.15700 | 50.64700 | 1.50900 | 1.96840 | 1.96840 | 1.96840 | 1.9760 | 1.9760 | .19860 |
| 3.499 | -.00509 | 1974.70000 | -.00020 | .00890 | -.01048 | -.00039 | -.01201 | -.01201 | -.00341 | -.00341 | .00421 |

GRADIENT

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|---------|------------|---------|----------|---------|---------|---------|---------|---------|---------|--------|
| 3.499 | 2.25340 | 2682.70001 | 4.39440 | 35.23400 | 1.75560 | 2.13950 | 2.13950 | 2.13950 | 5.2060 | 3.1970 | .28450 |
| 3.499 | 1.853 | 2.24290 | 4.37060 | 35.26200 | 1.74750 | 2.12430 | 2.12430 | 2.12430 | 4.7110 | 3.0020 | .25000 |
| 3.499 | 3.873 | 2.23110 | 4.38140 | 35.21600 | 1.78000 | 2.15730 | 2.15730 | 2.15730 | 4.6160 | 2.9550 | .25030 |
| 3.499 | 5.901 | 2.23100 | 4.36610 | 35.27100 | 1.76970 | 2.14630 | 2.14630 | 2.14630 | 4.3980 | 2.8610 | .25300 |
| 3.499 | 7.929 | 2.21690 | 4.35370 | 35.25300 | 1.79940 | 2.19000 | 2.19000 | 2.19000 | 4.4800 | 2.9240 | .27230 |
| 3.499 | 9.947 | 2.21220 | 4.34980 | 35.24400 | 1.81400 | 2.21570 | 2.21570 | 2.21570 | 4.4310 | 2.7740 | .26240 |
| 3.499 | 11.976 | 2.20900 | 4.28240 | 35.24500 | 1.79690 | 2.22890 | 2.22890 | 2.22890 | 4.0610 | 2.5940 | .23030 |
| 3.499 | 14.010 | 2.20510 | 4.55980 | 35.22500 | 1.79240 | 2.22430 | 2.22430 | 2.22430 | 3.7500 | 2.2540 | .21050 |
| 3.499 | 16.043 | 2.20500 | 4.47810 | 35.23400 | 1.78420 | 2.22140 | 2.22140 | 2.22140 | 3.5160 | 2.0500 | .20100 |
| 3.499 | 18.075 | 2.20730 | 4.38850 | 35.23400 | 1.76060 | 2.22790 | 2.22790 | 2.22790 | 3.4360 | 2.1290 | .20790 |
| 3.499 | 20.108 | 2.21360 | 4.08710 | 35.23400 | 1.76060 | 2.22790 | 2.22790 | 2.22790 | 3.7490 | 2.5430 | .23950 |
| 3.499 | 22.139 | 2.21600 | 3.93000 | 35.23400 | 1.76140 | 2.25910 | 2.25910 | 2.25910 | 3.6590 | 2.3530 | .22530 |
| 3.499 | 24.178 | 2.22300 | 3.87650 | 35.23400 | 1.74450 | 2.26120 | 2.26120 | 2.26120 | 3.7000 | 2.3450 | .21450 |
| 3.499 | 26.195 | 2.22590 | 3.81750 | 35.24400 | 1.72360 | 2.26590 | 2.26590 | 2.26590 | 3.7290 | 2.3730 | .21210 |
| 3.499 | -.00591 | 1974.70000 | -.00322 | .00444 | -.00578 | -.00464 | -.00464 | -.00464 | -.01459 | -.00696 | .00846 |

GRADIENT

(AE7R17) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = 0.360

RUN NO. 26/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PSI/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .595 | 10.710 | 5.34110 | 2578.70001 | 2029.89999 | 1.00890 | 1.06900 | .96440 | .98580 | .94970 | .94290 | .94290 |
| .596 | 2.152 | 5.36570 | 2573.39999 | 2029.20000 | 1.01160 | 1.07170 | .96720 | 1.00070 | .95620 | .94260 | .95160 |
| .596 | 4.218 | 5.37430 | 2580.10001 | 2029.20000 | 1.01250 | 1.07420 | .97050 | 1.00300 | .95010 | .94430 | .95270 |
| .596 | 6.303 | 5.37840 | 2579.39999 | 2029.20000 | 1.01300 | 1.07290 | .97130 | 1.00610 | .94870 | .94110 | .95240 |
| .596 | 8.393 | 5.38360 | 2580.10001 | 2029.20000 | 1.01170 | 1.07080 | .97140 | 1.00930 | .95020 | .94440 | .95370 |
| .596 | 10.516 | 5.37830 | 2580.10001 | 2029.20000 | 1.00670 | 1.06800 | .97080 | 1.00910 | .95070 | .94510 | .95330 |
| .596 | 12.637 | 5.37290 | 2580.79999 | 2029.20000 | 1.00290 | 1.06200 | .96860 | 1.00780 | .94860 | .94340 | .96210 |
| .594 | 14.748 | 5.36440 | 2580.79999 | 2032.00000 | .98440 | 1.05310 | .96030 | 1.00290 | .94360 | .94360 | .94928 |
| .596 | 16.862 | 5.36820 | 2580.79999 | 2029.89999 | .98490 | 1.04400 | .95680 | 1.00190 | .94150 | .94840 | .94840 |
| .595 | 18.967 | 5.37110 | 2580.10001 | 2029.20000 | .97190 | 1.03270 | .94970 | .98900 | .93750 | .94250 | .94250 |
| .594 | 21.059 | 5.37890 | 2580.10001 | 2032.00000 | .95770 | 1.01980 | .94120 | .98290 | .93370 | .93710 | .93710 |
| .595 | 23.147 | 5.38900 | 2580.79999 | 2031.00000 | .94480 | 1.00660 | .93150 | .98460 | .93120 | .91540 | .92660 |
| .595 | 25.192 | 5.40730 | 2581.50000 | 2032.00000 | .92780 | .98060 | .92200 | .97780 | .92510 | .90660 | .91690 |
| .595 | 26.088 | 5.43040 | 2580.79999 | 2031.30000 | .91750 | .96380 | .91660 | .97380 | .91340 | .90580 | .90640 |
| .595 | GRADIENT | .00807 | .34076 | -.17005 | .80075 | .00127 | .00148 | .00151 | .00010 | .00034 | .00010 |

RUN NO. 38/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PSI/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .697 | .100 | 5.35310 | 2309.20001 | 1669.70800 | 1.01780 | 1.10150 | .95130 | .99460 | .95130 | .92220 | .93278 |
| .698 | 2.144 | 5.33920 | 2310.70001 | 1669.00000 | 1.02010 | 1.10450 | .95520 | 1.00010 | .93020 | .92220 | .93360 |
| .698 | 4.233 | 5.38400 | 2310.70001 | 1669.00000 | 1.02060 | 1.10630 | .96120 | 1.00610 | .93050 | .92400 | .93450 |
| .697 | 6.329 | 5.38540 | 2310.70001 | 1669.80000 | 1.02820 | 1.10630 | .96140 | 1.01100 | .93070 | .92070 | .93980 |
| .698 | 8.437 | 5.38730 | 2310.70001 | 1669.00000 | 1.01890 | 1.10210 | .96280 | 1.01380 | .92970 | .92320 | .93270 |
| .696 | 10.566 | 5.39130 | 2309.89999 | 1671.89999 | 1.01350 | 1.09600 | .96130 | 1.01470 | .93180 | .92740 | .93780 |
| .695 | 12.664 | 5.37570 | 2309.89999 | 1671.89999 | 1.00940 | 1.09740 | .96880 | 1.01580 | .92580 | .91980 | .93470 |
| .697 | 14.788 | 5.37410 | 2332.60001 | 1665.00000 | .99698 | 1.07930 | .95300 | 1.01210 | .91990 | .91110 | .92730 |
| .697 | 16.936 | 5.38490 | 2332.60001 | 1665.30000 | .98420 | 1.06760 | .94630 | 1.00960 | .90560 | .90560 | .92820 |
| .697 | 19.067 | 5.39510 | 2333.29999 | 1665.80000 | .96930 | 1.05370 | .93880 | 1.00620 | .89750 | .89750 | .92320 |
| .695 | 21.174 | 5.40830 | 2331.89999 | 1665.20000 | .95970 | 1.03780 | .92970 | .99810 | .90740 | .89750 | .92200 |
| .696 | 23.264 | 5.41950 | 2332.60001 | 1665.20000 | .93060 | 1.01580 | .91270 | .98670 | .90180 | .89650 | .90250 |
| .696 | 25.273 | 5.41950 | 2332.60001 | 1665.20000 | .91060 | 1.00000 | .90310 | .97890 | .87400 | .86640 | .87910 |
| .695 | 26.158 | 5.46400 | 2332.60001 | 1665.89999 | .89840 | .98970 | .89270 | .96300 | .86300 | .85570 | .86980 |
| .695 | GRADIENT | .00753 | .36169 | -.16878 | .80068 | .00116 | .00240 | .00278 | .00014 | .00044 | .00044 |

TABLATED DATA - 0A161 (ARC 11-97-87-08A)
ARC 11-97-87-08A 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AHLRON = .000 BDELAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1078.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | P | RV/L | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|------|-------------------|---------|---------|--------|---------|--------|--------|--------|
| .800 | .077 | 5.35340 | 2177.70001 | 1429.10001 | 4.23 | -5.00 | 1.03400 | 1.14640 | 93480 | 99330 | 90380 | 90380 | 91010 |
| .801 | 2.151 | 5.39270 | 2177.70001 | 1427.70000 | 4.23 | -5.00 | 1.03780 | 1.15670 | 94470 | 1.00440 | 90650 | 90650 | 91400 |
| .799 | 4.249 | 5.39300 | 2177.70001 | 1429.80000 | 4.23 | -5.00 | 1.03980 | 1.15150 | 95100 | 1.01160 | 90450 | 90450 | 91400 |
| .797 | 6.363 | 5.40020 | 2178.39999 | 1431.20000 | 4.23 | -5.00 | 1.03860 | 1.14850 | 95570 | 1.01910 | 90320 | 90320 | 91260 |
| .799 | 8.478 | 5.40290 | 2178.39999 | 1433.39999 | 4.23 | -5.00 | 1.03570 | 1.14440 | 96020 | 1.02420 | 90520 | 90520 | 91330 |
| .798 | 10.608 | 5.39490 | 2179.10001 | 1432.00000 | 4.23 | -5.00 | 1.03000 | 1.13910 | 95830 | 1.02480 | 90980 | 90980 | 90580 |
| .801 | 12.741 | 5.39810 | 2193.60001 | 1441.89999 | 4.23 | -5.00 | 1.02800 | 1.13310 | 96160 | 1.03000 | 90120 | 90120 | 91000 |
| .798 | 14.863 | 5.40560 | 2201.00000 | 1446.60000 | 4.23 | -5.00 | 1.00810 | 1.11660 | 95150 | 1.02560 | 88930 | 88930 | 90060 |
| .800 | 16.988 | 5.42250 | 2201.70001 | 1444.00000 | 4.23 | -5.00 | 99540 | 1.10180 | 94450 | 1.02400 | 88740 | 88740 | 89460 |
| .799 | 19.138 | 5.43560 | 2201.00000 | 1445.39999 | 4.23 | -5.00 | 96710 | 1.08180 | 92990 | 1.01510 | 86520 | 86520 | 88860 |
| .794 | 21.246 | 5.44370 | 2198.20001 | 1445.39999 | 4.23 | -5.00 | 94940 | 1.06130 | 92070 | 1.00900 | 86740 | 86740 | 88120 |
| .792 | 23.331 | 5.44250 | 2198.89999 | 1445.39999 | 4.23 | -5.00 | 92650 | 1.04290 | 90610 | 1.00030 | 83980 | 83980 | 85720 |
| .799 | 25.341 | 5.44830 | 2198.89999 | 1449.78000 | 4.23 | -5.00 | 89920 | 1.01620 | 88900 | 98720 | 82400 | 82400 | 82850 |
| .797 | 26.266 | 5.50540 | 2198.89999 | 1446.80000 | 4.23 | -5.00 | 89410 | 1.01000 | 88490 | 98680 | 81930 | 81930 | 81770 |
| | GRADIENT | .00948 | .02000 | .16849 | | | .00095 | .00122 | .00368 | .00439 | .00017 | .00017 | .00093 |

| MACH | ALPHA | BETA | PT | P | RV/L | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|------|-------------------|---------|---------|--------|---------|--------|--------|--------|
| .851 | .077 | 5.37230 | 2167.10001 | 1350.29000 | 4.23 | -5.00 | 1.04910 | 1.17300 | 93030 | 99710 | 86780 | 86780 | 89810 |
| .850 | 2.197 | 5.39110 | 2167.10001 | 1350.89999 | 4.23 | -5.00 | 1.05210 | 1.17750 | 94180 | 1.00680 | 86700 | 86700 | 89820 |
| .850 | 4.266 | 5.40020 | 2167.10001 | 1350.89999 | 4.23 | -5.00 | 1.05360 | 1.17970 | 95410 | 1.01770 | 86520 | 86520 | 89980 |
| .849 | 6.384 | 5.39770 | 2166.39999 | 1352.39999 | 4.23 | -5.00 | 1.05250 | 1.17730 | 95850 | 1.02580 | 86240 | 86240 | 89780 |
| .848 | 8.502 | 5.40220 | 2167.10001 | 1353.80000 | 4.23 | -5.00 | 1.04970 | 1.17310 | 96110 | 1.03060 | 86490 | 86490 | 89220 |
| .846 | 10.633 | 5.39680 | 2166.39999 | 1353.80000 | 4.23 | -5.00 | 1.03620 | 1.16270 | 96320 | 1.03780 | 86200 | 86200 | 89500 |
| .845 | 12.758 | 5.40220 | 2166.39999 | 1353.00000 | 4.23 | -5.00 | 1.03300 | 1.15300 | 96300 | 1.03820 | 86300 | 86300 | 88830 |
| .846 | 14.892 | 5.41680 | 2166.39999 | 1353.89999 | 4.23 | -5.00 | 1.02050 | 1.14390 | 95790 | 1.03990 | 86090 | 86090 | 87830 |
| .848 | 17.029 | 5.43460 | 2166.70001 | 1354.10001 | 4.23 | -5.00 | 98290 | 1.12760 | 94780 | 1.03650 | 85640 | 85640 | 87930 |
| .846 | 19.177 | 5.44950 | 2167.10001 | 1357.30000 | 4.23 | -5.00 | 98290 | 1.10400 | 93540 | 1.02610 | 85150 | 85150 | 88110 |
| .848 | 21.307 | 5.45790 | 2166.39999 | 1353.80000 | 4.23 | -5.00 | 95770 | 1.08740 | 92680 | 1.02440 | 84010 | 84010 | 86230 |
| .844 | 23.369 | 5.45090 | 2167.79999 | 1359.50000 | 4.23 | -5.00 | 92890 | 1.06000 | 90840 | 1.01000 | 80060 | 80060 | 81650 |
| .847 | 25.408 | 5.46340 | 2167.79999 | 1355.89999 | 4.23 | -5.00 | 90210 | 1.03690 | 89150 | 1.00290 | 78820 | 78820 | 78200 |
| .851 | 26.333 | 5.49520 | 2167.10001 | 1348.50000 | 4.23 | -5.00 | 88570 | 1.02660 | 88050 | 99750 | 76350 | 76350 | 77720 |
| | GRADIENT | .00666 | .02000 | .16674 | | | .00107 | .00160 | .00568 | .00492 | .00120 | .00120 | .00041 |

TABULATED DATA - 0A161 (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A161 ORBITER

(AETR17) (02 AUG 78)

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6900 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVOM = .000
 AIRLON = .000 BOFLAP = -7.170

RUN NO. 49* 0 RWAL = 4.2* GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .899 | .077 | 5.36790 | 2126.10001 | 1256.00000 | 1.06920 | 1.20920 | 9.3730 | 1.00500 | .86790 | .85480 | .87460 |
| .901 | 2.173 | 5.33030 | 2126.79999 | 1256.89999 | 1.07300 | 1.21310 | 9.4980 | 1.01530 | .86610 | .85620 | .87560 |
| .899 | 4.282 | 5.40590 | 2126.10001 | 1258.00000 | 1.07640 | 1.21260 | 9.6290 | 1.02990 | .86970 | .86110 | .88060 |
| .900 | 6.405 | 5.41170 | 2126.79999 | 1258.00000 | 1.07570 | 1.21110 | 9.6870 | 1.03840 | .87300 | .86830 | .88060 |
| .899 | 8.522 | 5.43660 | 2126.10001 | 1260.00000 | 1.06880 | 1.20550 | 9.7380 | 1.04790 | .86920 | .86540 | .87780 |
| .937 | 10.698 | 5.40500 | 2126.79999 | 1261.50001 | 1.06200 | 1.19590 | 9.7670 | 1.05310 | .86900 | .85100 | .87360 |
| .896 | 12.791 | 5.39880 | 2126.79999 | 1261.60001 | 1.05580 | 1.18496 | 9.7380 | 1.05650 | .86940 | .84940 | .86540 |
| .896 | 14.929 | 5.42120 | 2126.79999 | 1263.10001 | 1.03810 | 1.17110 | 9.6850 | 1.05530 | .84730 | .83700 | .86430 |
| .899 | 17.082 | 5.43940 | 2126.79999 | 1263.89999 | 1.02320 | 1.15830 | 9.6530 | 1.05520 | .84500 | .83670 | .85660 |
| .898 | 19.254 | 5.44940 | 2127.50000 | 1260.89999 | .99800 | 1.13700 | 9.5000 | 1.04770 | .81160 | .8160 | .84500 |
| .894 | 21.349 | 5.46250 | 2126.79999 | 1266.00000 | .97840 | 1.10950 | 9.3280 | 1.03450 | .79290 | .79290 | .83930 |
| .895 | 23.409 | 5.45240 | 2126.79999 | 1263.80000 | .94430 | 1.08770 | 9.1610 | 1.02840 | .76100 | .73070 | .78260 |
| .896 | 25.482 | 5.44410 | 2128.20001 | 1263.10001 | .91350 | 1.06030 | .89760 | 1.01990 | .73000 | .72150 | .73000 |
| .898 | 26.485 | 5.51560 | 2127.50000 | 1260.20000 | .89550 | 1.05440 | .89310 | 1.01710 | .74110 | .72150 | .71240 |
| | GRADIENT | .00903 | -.00053 | .19441 | .00171 | .00881 | .00599 | .00592 | .00299 | .00150 | .00143 |

RUN NO. 59* 0 RWAL = 4.2* GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .949 | .083 | 5.36950 | 2085.70001 | 1168.39999 | 1.10080 | 1.25320 | 9.6030 | 1.02940 | .82500 | .81220 | .83080 |
| .951 | 2.189 | 5.39320 | 2085.70001 | 1165.60001 | 1.10850 | 1.25820 | 9.7570 | 1.04490 | .83120 | .82190 | .84040 |
| .956 | 4.307 | 5.39450 | 2085.00000 | 1167.00000 | 1.10710 | 1.25840 | 9.8520 | 1.05560 | .82590 | .81900 | .83510 |
| .948 | 6.440 | 5.39950 | 2085.70001 | 1169.10001 | 1.10860 | 1.25520 | 9.9350 | 1.06700 | .83170 | .83000 | .84920 |
| .948 | 8.574 | 5.41640 | 2085.70001 | 1169.10001 | 1.10160 | 1.24790 | 9.9730 | 1.07430 | .82390 | .81360 | .83210 |
| .950 | 10.730 | 5.40050 | 2086.39999 | 1167.00000 | 1.09490 | 1.24140 | 1.00240 | 1.08400 | .82130 | .81740 | .82510 |
| .949 | 12.862 | 5.37930 | 2085.70001 | 1168.39999 | 1.08580 | 1.22740 | .99970 | 1.08540 | .81310 | .80980 | .83950 |
| .948 | 15.016 | 5.40030 | 2085.70001 | 1169.10001 | 1.06480 | 1.20970 | .99130 | 1.08100 | .80000 | .79200 | .82300 |
| .948 | 17.167 | 5.41650 | 2085.00000 | 1169.10001 | 1.04990 | 1.19610 | .98450 | 1.07990 | .78330 | .77020 | .83710 |
| .942 | 19.342 | 5.42230 | 2087.20001 | 1165.50000 | 1.02710 | 1.17860 | .97450 | 1.07930 | .77230 | .76030 | .80220 |
| .943 | 21.495 | 5.43630 | 2085.39999 | 1168.39999 | .99820 | 1.15160 | .96760 | 1.06790 | .74910 | .73630 | .77030 |
| .948 | 23.631 | 5.45030 | 2085.70001 | 1169.10001 | .96680 | 1.12400 | .95160 | 1.05630 | .70670 | .70670 | .69800 |
| .941 | 25.574 | 5.44200 | 2168.60001 | 1167.00000 | .93640 | 1.09960 | .91640 | 1.04680 | .69450 | .66810 | .66810 |
| .947 | 26.481 | 5.52280 | 2085.00000 | 1170.50000 | .91320 | 1.08530 | .89970 | 1.03260 | .68000 | .65960 | .65170 |
| | GRADIENT | .00991 | -.16591 | -.33035 | .00149 | .00123 | .00589 | .00620 | .00021 | .00161 | .00125 |

ORIGINAL PAGE IS OF POOR QUALITY

(AETRI77) (02 AUG 76)

TABULATED DATA - 04M61 (ARC 11-97-87-094)

ARC 11-97-87-094 04M61 ORBITER

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6900 IN. X0.
 LREF = 474.8000 IN. YMRP = 0000. IN. Y0.
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0.
 SCALE = .0300

BETA = 5.000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | RVAL | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|-----------|-----------|-------------------|--------|--------|--------|--------|--------|--------|--------|
| .981 | .085 | 5.3560 | 2076.5000 | 1122.0000 | 4.26 | 1.1308 | 1.2880 | .9833 | 1.0539 | .7837 | .7700 | .7678 |
| .980 | 2.188 | 5.3879 | 2075.7999 | 1122.0000 | | 1.1340 | 1.2920 | .9879 | 1.0597 | .7861 | .7744 | .7940 |
| .981 | 4.317 | 5.4016 | 2076.5000 | 1121.3000 | | 1.1361 | 1.2940 | 1.0100 | 1.0818 | .7850 | .7750 | .7950 |
| .979 | 6.453 | 5.3995 | 2075.7999 | 1123.5999 | | 1.1341 | 1.2897 | 1.0157 | 1.0918 | .7818 | .7715 | .7890 |
| .981 | 8.602 | 5.4013 | 2078.0000 | 1122.7000 | | 1.1285 | 1.2839 | 1.0209 | 1.1050 | .7639 | .7653 | .7930 |
| .982 | 10.766 | 5.3940 | 2078.0000 | 1123.3999 | | 1.1203 | 1.2720 | 1.0280 | 1.1056 | .7640 | .7530 | .7843 |
| .977 | 12.899 | 5.3921 | 2073.7000 | 1124.8999 | | 1.1089 | 1.2575 | 1.0202 | 1.1070 | .7470 | .7593 | .7878 |
| .977 | 15.056 | 5.3937 | 2075.1000 | 1125.8999 | | 1.0909 | 1.2405 | 1.0115 | 1.1030 | .7450 | .7537 | .7870 |
| .980 | 17.218 | 5.4338 | 2077.2999 | 1122.7000 | | 1.0690 | 1.2236 | 1.0027 | 1.1029 | .7400 | .7215 | .7740 |
| .979 | 19.381 | 5.4379 | 2076.5000 | 1124.2000 | | 1.0455 | 1.2021 | .9900 | 1.0966 | .7260 | .7000 | .7537 |
| .979 | 21.523 | 5.4463 | 2076.5000 | 1124.2000 | | 1.0161 | 1.1769 | .9750 | 1.0881 | .6928 | .6530 | .7126 |
| .980 | 23.604 | 5.4460 | 2077.2999 | 1123.3999 | | .9877 | 1.1506 | .9528 | 1.0720 | .6828 | .6530 | .6879 |
| .983 | 25.650 | 5.4656 | 2076.5000 | 1122.7000 | | .9540 | 1.1232 | .9306 | 1.0640 | .6750 | .6439 | .6488 |
| .977 | 28.553 | 5.5028 | 2075.7999 | 1125.6000 | | .9314 | 1.1099 | .9161 | 1.0520 | .6750 | .6439 | .6278 |
| GRADIENT | | .01057 | .00667 | -.16576 | | .00125 | .00144 | .00631 | .00662 | .00842 | .00118 | .00205 |

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | RVAL | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|-----------|-----------|-------------------|--------|--------|--------|--------|--------|---------|---------|
| 1.050 | .095 | 5.3690 | 2040.5000 | 1015.6000 | 4.25 | 1.2136 | 1.3873 | 1.0541 | 1.1297 | .7251 | .7035 | .7242 |
| 1.052 | 2.205 | 5.4130 | 2042.6999 | 1014.2000 | | 1.2169 | 1.3910 | 1.0713 | 1.1451 | .7190 | .6975 | .7235 |
| 1.050 | 4.330 | 5.3979 | 2040.5000 | 1016.3000 | | 1.2162 | 1.3895 | 1.0809 | 1.1530 | .7180 | .7013 | .7197 |
| 1.048 | 6.470 | 5.4030 | 2039.8000 | 1017.7000 | | 1.2143 | 1.3827 | 1.0897 | 1.1664 | .7167 | .6982 | .7141 |
| 1.052 | 8.620 | 5.4090 | 2044.0000 | 1015.6000 | | 1.2099 | 1.3798 | 1.0947 | 1.1772 | .7077 | .6867 | .7056 |
| 1.050 | 10.785 | 5.3810 | 2042.0000 | 1011.3000 | | 1.1985 | 1.3655 | 1.0959 | 1.1818 | .7012 | .6794 | .7012 |
| 1.048 | 12.932 | 5.3826 | 2028.5000 | 1012.7000 | | 1.1850 | 1.3458 | 1.0800 | 1.1778 | .6938 | .6746 | .6820 |
| 1.050 | 15.093 | 5.4020 | 2031.3000 | 1011.3000 | | 1.1606 | 1.3270 | 1.0645 | 1.1780 | .6880 | .6660 | .6815 |
| 1.049 | 17.232 | 5.4380 | 2029.2000 | 1012.7000 | | 1.1394 | 1.3077 | 1.0495 | 1.1740 | .6860 | .6567 | .6728 |
| 1.048 | 19.426 | 5.4540 | 2028.5000 | 1010.6000 | | 1.1143 | 1.2833 | 1.0325 | 1.1654 | .6880 | .6368 | .6559 |
| 1.051 | 21.574 | 5.4581 | 2032.0000 | 1010.6000 | | 1.0850 | 1.2619 | 1.0260 | 1.1557 | .6820 | .6482 | .6329 |
| 1.048 | 23.671 | 5.4740 | 2030.6000 | 1013.4000 | | 1.0470 | 1.2281 | 1.0069 | 1.1390 | .6408 | .5949 | .6062 |
| 1.050 | 25.729 | 5.4719 | 2033.3999 | 1012.7000 | | 1.0120 | 1.1942 | .9984 | 1.1191 | .6161 | .5758 | .5852 |
| 1.048 | 26.650 | 5.5327 | 2030.6000 | 1013.4000 | | .9860 | 1.1655 | 1.0080 | 1.1099 | .6220 | .5758 | .5652 |
| GRADIENT | | .00294 | -.00116 | .16629 | | .00061 | .00052 | .00633 | .00628 | .00148 | -.00052 | -.06106 |

GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-084 0A161 ORBITTER

(AETR17) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.6000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 373.0000 IN. ZO
SCALE = .0300

BETA = 5.000
ALTRON = .000

ELEVON = .000
BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 70/ 0 RNV/E = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.100 | .086 | 5.35020 | 2015.00000 | 943.98000 | 1.25060 | 1.44260 | 1.08330 | 1.16628 | 70470 | 68100 | 69870 |
| 1.100 | 2.195 | 5.39310 | 2013.60001 | 942.57000 | 1.25200 | 1.44450 | 1.09970 | 1.18010 | 70450 | 68100 | 69870 |
| 1.099 | 4.329 | 5.39820 | 2013.60001 | 944.66000 | 1.25130 | 1.44840 | 1.11060 | 1.19040 | 70450 | 68140 | 69870 |
| 1.099 | 6.470 | 5.39650 | 2015.70000 | 944.38000 | 1.24760 | 1.43380 | 1.12450 | 1.20560 | 69670 | 67370 | 68560 |
| 1.099 | 8.622 | 5.40440 | 2015.00000 | 944.67000 | 1.24210 | 1.42480 | 1.12860 | 1.21290 | 68848 | 66140 | 67050 |
| 1.099 | 10.790 | 5.38210 | 2015.70000 | 946.08000 | 1.22730 | 1.40920 | 1.12860 | 1.21700 | 68090 | 66190 | 68030 |
| 1.099 | 12.940 | 5.38480 | 2015.39999 | 946.39000 | 1.21586 | 1.39160 | 1.11930 | 1.21510 | 68770 | 65940 | 68030 |
| 1.100 | 15.106 | 5.40530 | 2015.00000 | 943.98000 | 1.19420 | 1.37640 | 1.11040 | 1.21300 | 68800 | 65880 | 67920 |
| 1.098 | 17.264 | 5.44490 | 2014.30000 | 946.07000 | 1.16750 | 1.35030 | 1.09200 | 1.19790 | 65000 | 64460 | 65000 |
| 1.098 | 19.442 | 5.45590 | 2017.10001 | 946.09000 | 1.13990 | 1.32330 | 1.08340 | 1.18290 | 67100 | 62530 | 64620 |
| 1.097 | 21.576 | 5.46320 | 2015.00000 | 946.77000 | 1.10810 | 1.29980 | 1.08700 | 1.16620 | 62880 | 62880 | 60930 |
| 1.099 | 23.679 | 5.47750 | 2017.10001 | 946.09000 | 1.07060 | 1.27300 | .95570 | 1.13500 | 59450 | 57010 | 59450 |
| 1.101 | 25.755 | 5.48800 | 2017.10001 | 944.00000 | 1.04000 | 1.24010 | .91720 | 1.12530 | 58200 | 58200 | 58580 |
| 1.098 | 28.713 | 5.48810 | 2012.89999 | 944.66000 | 1.01700 | 1.2110 | .91940 | 1.12930 | 54860 | 54860 | 60250 |
| | GRADIENT | .01130 | -.32937 | .16184 | .00016 | -.00052 | .00643 | .00570 | -.00094 | .00005 | -.00189 |

RUN NO. 79/ 0 RNV/E = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.149 | .088 | 5.37900 | 2013.60001 | 886.86000 | 1.30740 | 1.51280 | 1.11210 | 1.20630 | 69280 | 68340 | 68500 |
| 1.149 | 2.192 | 5.39930 | 2013.60001 | 886.16000 | 1.30380 | 1.51260 | 1.13110 | 1.20720 | 69880 | 67630 | 68910 |
| 1.148 | 4.314 | 5.41620 | 2013.60001 | 887.56000 | 1.29670 | 1.50750 | 1.14410 | 1.23580 | 68620 | 66620 | 68330 |
| 1.147 | 6.459 | 5.40910 | 2013.60001 | 889.95000 | 1.29350 | 1.49700 | 1.15270 | 1.23520 | 69260 | 66250 | 68580 |
| 1.147 | 8.620 | 5.41600 | 2013.60001 | 889.65000 | 1.29050 | 1.49430 | 1.16180 | 1.24000 | 68560 | 65080 | 67560 |
| 1.143 | 10.792 | 5.39460 | 2013.60001 | 893.13000 | 1.27530 | 1.47140 | 1.16580 | 1.23630 | 68100 | 64630 | 67360 |
| 1.143 | 12.940 | 5.39340 | 2015.70000 | 892.45000 | 1.27030 | 1.45010 | 1.16530 | 1.23030 | 67190 | 64190 | 65750 |
| 1.142 | 15.103 | 5.41930 | 2013.60001 | 894.52000 | 1.23350 | 1.42740 | 1.09810 | 1.20930 | 67150 | 62770 | 65120 |
| 1.142 | 17.263 | 5.44340 | 2014.30000 | 888.26000 | 1.21860 | 1.41490 | 1.03930 | 1.18480 | 67930 | 62910 | 64470 |
| 1.141 | 19.440 | 5.45920 | 2015.00000 | 895.93000 | 1.18770 | 1.38530 | 1.01620 | 1.1770 | 66466 | 61220 | 64470 |
| 1.141 | 21.581 | 5.46790 | 2017.80000 | 895.95000 | 1.15196 | 1.35610 | .97350 | 1.14870 | 64990 | 57810 | 60500 |
| 1.141 | 23.683 | 5.47080 | 2010.80000 | 894.56000 | 1.11830 | 1.33010 | .94630 | 1.14020 | 63870 | 56550 | 60440 |
| 1.149 | 25.770 | 5.47750 | 2015.00000 | 886.87000 | 1.10350 | 1.30940 | .91220 | 1.13800 | 62430 | 54320 | 60140 |
| 1.144 | 28.789 | 5.48670 | 2010.80000 | 893.02000 | 1.07810 | 1.28920 | .89350 | 1.13910 | 62300 | 53640 | 58970 |
| | GRADIENT | .01881 | .00002 | .16637 | -.00253 | -.00126 | .00757 | .00462 | -.00056 | .00018 | -.00056 |

(AETRI77 (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.008 ELEVON = .000
A1LIRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2697.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LRFZ = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. : 804 0 RVL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.198 | .084 | 5.39570 | 2010.10001 | 831.09000 | 1.33760 | 1.30320 | 1.13450 | 1.24230 | .67230 | .64200 | .65350 |
| 1.199 | 2.183 | 5.40760 | 2003.70000 | 826.87000 | 1.33060 | 1.29820 | 1.16000 | 1.23420 | .66170 | .65300 | .66730 |
| 1.197 | 4.303 | 5.41060 | 2005.10001 | 830.36000 | 1.32570 | 1.54750 | 1.16680 | 1.25370 | .67380 | .64580 | .66110 |
| 1.195 | 6.449 | 5.42648 | 2011.50000 | 833.88000 | 1.31900 | 1.53360 | 1.18860 | 1.26170 | .67450 | .63960 | .65520 |
| 1.195 | 8.608 | 5.41510 | 2005.80000 | 832.45000 | 1.31400 | 1.52630 | 1.15660 | 1.25590 | .66400 | .62780 | .63940 |
| 1.197 | 10.782 | 5.39200 | 2004.39999 | 833.84000 | 1.30170 | 1.50790 | 1.09610 | 1.22700 | .65870 | .61690 | .62510 |
| 1.193 | 12.934 | 5.40450 | 2010.90000 | 836.65000 | 1.30220 | 1.49640 | 1.06950 | 1.20280 | .65520 | .61440 | .63110 |
| 1.197 | 15.094 | 5.41820 | 2009.39999 | 831.78000 | 1.27370 | 1.47880 | 1.04810 | 1.20550 | .65850 | .60468 | .62590 |
| 1.196 | 17.251 | 5.44530 | 2009.10001 | 831.75000 | 1.24330 | 1.45490 | 1.02800 | 1.19350 | .64670 | .58900 | .60840 |
| 1.196 | 19.423 | 5.46050 | 2006.50000 | 838.03000 | 1.21700 | 1.42320 | 1.00270 | 1.18070 | .64270 | .58180 | .61180 |
| 1.192 | 21.566 | 5.46340 | 2012.20000 | 838.77000 | 1.17770 | 1.39670 | .97290 | 1.17070 | .63250 | .55680 | .58850 |
| 1.190 | 23.687 | 5.46700 | 2008.60001 | 839.44000 | 1.14530 | 1.36600 | .96600 | 1.16450 | .62450 | .56410 | .57600 |
| 1.194 | 25.763 | 5.48790 | 2010.10001 | 839.78000 | 1.12140 | 1.34140 | .90140 | 1.15680 | .61820 | .52200 | .57370 |
| 1.196 | 26.783 | 5.49970 | 2008.60001 | 832.47000 | 1.11900 | 1.33120 | .89360 | 1.15640 | .61340 | .51130 | .55440 |
| | GRADIENT | .03353 | -1.18005 | -1.17009 | -.08282 | -.00136 | .00765 | .00271 | .00035 | .00883 | .00179 |

RUN NO. : 897 0 RVL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.294 | .072 | 5.39590 | 2004.39999 | 729.53000 | 1.41650 | 1.64780 | 1.16040 | 1.26660 | .63590 | .59550 | .61510 |
| 1.293 | 2.164 | 5.41390 | 2003.70000 | 729.91000 | 1.41010 | 1.64470 | 1.14110 | 1.26880 | .63480 | .59370 | .62280 |
| 1.299 | 4.284 | 5.42690 | 2003.70000 | 724.46000 | 1.40760 | 1.65110 | 1.10840 | 1.26030 | .64020 | .59650 | .62140 |
| 1.297 | 6.422 | 5.42450 | 2004.39999 | 725.93000 | 1.40170 | 1.64060 | 1.09570 | 1.24930 | .63550 | .59880 | .61360 |
| 1.295 | 8.577 | 5.43780 | 2013.70000 | 728.13000 | 1.38840 | 1.62040 | 1.08980 | 1.24960 | .62920 | .58040 | .59780 |
| 1.293 | 10.749 | 5.39200 | 2004.39999 | 730.25000 | 1.37310 | 1.60370 | 1.07890 | 1.24980 | .62120 | .56270 | .58200 |
| 1.295 | 12.884 | 5.40740 | 2004.39999 | 728.13000 | 1.38070 | 1.58970 | 1.06520 | 1.24700 | .62560 | .56198 | .57340 |
| 1.294 | 15.033 | 5.42930 | 2004.39999 | 729.53000 | 1.34800 | 1.56430 | 1.04300 | 1.24190 | .61840 | .53930 | .55720 |
| 1.293 | 17.213 | 5.44970 | 2004.39999 | 730.25000 | 1.34320 | 1.53960 | 1.01470 | 1.23360 | .61260 | .52731 | .54950 |
| 1.292 | 19.380 | 5.46280 | 2004.39999 | 731.61000 | 1.27810 | 1.51940 | .99550 | 1.24240 | .60950 | .52870 | .54270 |
| 1.289 | 21.524 | 5.48930 | 2015.10001 | 735.10000 | 1.24940 | 1.48350 | .96500 | 1.2510 | .61160 | .52580 | .53140 |
| 1.292 | 23.632 | 5.47100 | 2005.80000 | 732.32000 | 1.22260 | 1.46650 | .93660 | 1.21830 | .58960 | .50700 | .51030 |
| 1.293 | 25.737 | 5.49650 | 2005.80000 | 736.50000 | 1.18370 | 1.43700 | .91360 | 1.20600 | .57680 | .46150 | .50030 |
| 1.293 | 26.766 | 5.51380 | 2005.10001 | 727.40000 | 1.18590 | 1.43630 | .90500 | 1.20500 | .57990 | .46280 | .48380 |
| | GRADIENT | .00710 | -.16885 | -1.20271 | -.08211 | .00678 | -.01235 | -.00149 | .00102 | .00024 | .00149 |

(AETRI7) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AHLRON = .000 BDFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161A ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
SREF = 935.8800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 90/ 0 RVL = 4.22 GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.393 | .055 | 5.3850 | 2030.6000 | 638.54000 | 1.52270 | 1.76530 | 1.09680 | 1.26020 | 1.61070 | 1.55940 | 1.57840 |
| 1.403 | 2.139 | 5.42510 | 2029.89399 | 634.88000 | 1.51390 | 1.77280 | 1.11340 | 1.27410 | 1.61620 | 1.56690 | 1.59900 |
| 1.393 | 4.288 | 5.42190 | 2030.60001 | 638.54000 | 1.50000 | 1.75680 | 1.11160 | 1.26570 | 1.61450 | 1.56500 | 1.60198 |
| 1.399 | 6.394 | 5.44210 | 2032.60001 | 639.28000 | 1.49180 | 1.74640 | 1.09200 | 1.26120 | 1.61460 | 1.56370 | 1.59342 |
| 1.397 | 8.538 | 5.44390 | 2030.60001 | 640.75000 | 1.47890 | 1.72590 | 1.08820 | 1.25090 | 1.61010 | 1.56240 | 1.57240 |
| 1.399 | 10.705 | 5.44280 | 2030.60001 | 640.02000 | 1.46690 | 1.71160 | 1.09310 | 1.25630 | 1.60800 | 1.56300 | 1.56300 |
| 1.394 | 12.846 | 5.43890 | 2031.30000 | 641.48000 | 1.47680 | 1.69400 | 1.07640 | 1.25120 | 1.60910 | 1.56360 | 1.54360 |
| 1.394 | 15.003 | 5.44560 | 2031.30000 | 643.69000 | 1.43840 | 1.66520 | 1.07330 | 1.24970 | 1.60180 | 1.56280 | 1.53280 |
| 1.385 | 17.160 | 5.44870 | 2030.60001 | 642.95000 | 1.39630 | 1.63590 | 1.03260 | 1.24720 | 1.59460 | 1.56260 | 1.5170 |
| 1.399 | 19.330 | 5.45930 | 2030.60001 | 642.95000 | 1.36190 | 1.62110 | 1.00260 | 1.24720 | 1.59350 | 1.56350 | 1.5193 |
| 1.398 | 21.470 | 5.47640 | 2032.70000 | 639.93000 | 1.33990 | 1.58670 | 1.00390 | 1.25940 | 1.59630 | 1.57190 | 1.48989 |
| 1.388 | 23.586 | 5.47810 | 2032.70000 | 641.44000 | 1.28820 | 1.54670 | 1.00500 | 1.26760 | 1.57800 | 1.57350 | 1.47720 |
| 1.397 | 25.688 | 5.51260 | 2032.70000 | 639.24000 | 1.28440 | 1.53390 | 1.02700 | 1.26640 | 1.55970 | 1.57440 | 1.45170 |
| 1.399 | 26.728 | 5.51260 | 2032.70000 | 639.24000 | 1.00590 | 1.00228 | 1.00351 | 1.00607 | 1.00993 | 1.00133 | 1.00558 |

RUN NO. 325/ 0 RVL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | F | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.556 | .073 | 4.56680 | 1544.00000 | 387.63000 | 1.64400 | 1.95960 | 1.09840 | 1.31870 | 1.58880 | 1.55640 | 1.54960 |
| 1.566 | 2.066 | 4.58280 | 1544.00000 | 387.63000 | 1.64800 | 1.98940 | 1.11330 | 1.32440 | 1.57130 | 1.54650 | 1.56170 |
| 1.566 | 4.135 | 4.55450 | 1542.60001 | 387.27000 | 1.64290 | 1.94900 | 1.12620 | 1.32690 | 1.57200 | 1.54720 | 1.56740 |
| 1.568 | 6.173 | 4.56570 | 1541.80000 | 387.09000 | 1.63940 | 1.92670 | 1.12950 | 1.33400 | 1.56800 | 1.54320 | 1.57570 |
| 1.568 | 8.241 | 4.56460 | 1541.10001 | 386.92000 | 1.63100 | 1.91540 | 1.12990 | 1.34398 | 1.56570 | 1.54900 | 1.54480 |
| 1.566 | 10.305 | 4.56330 | 1541.80000 | 387.09000 | 1.61400 | 1.89870 | 1.11470 | 1.34770 | 1.57700 | 1.54700 | 1.55740 |
| 1.556 | 12.345 | 4.56930 | 1541.80000 | 387.09000 | 1.58660 | 1.89450 | 1.10600 | 1.35460 | 1.56000 | 1.53800 | 1.53800 |
| 1.556 | 14.426 | 4.57900 | 1542.60001 | 387.27000 | 1.56510 | 1.86460 | 1.08960 | 1.35080 | 1.54420 | 1.5430 | 1.51990 |
| 1.565 | 16.587 | 4.56150 | 1543.30000 | 387.45000 | 1.53990 | 1.82130 | 1.06370 | 1.34660 | 1.54200 | 1.5430 | 1.47930 |
| 1.565 | 18.683 | 4.58890 | 1543.30000 | 387.45000 | 1.50110 | 1.78490 | 1.04450 | 1.36570 | 1.53300 | 1.56300 | 1.47930 |
| 1.565 | 20.777 | 4.59330 | 1544.00000 | 387.63000 | 1.46740 | 1.76670 | 1.02860 | 1.36570 | 1.5210 | 1.48450 | 1.46220 |
| 1.556 | 22.777 | 4.58260 | 1543.30000 | 387.63000 | 1.44080 | 1.76670 | 1.01670 | 1.36440 | 1.50420 | 1.45930 | 1.47930 |
| 1.556 | 24.837 | 4.62200 | 1542.60001 | 387.27000 | 1.41900 | 1.73000 | 1.00700 | 1.35110 | 1.47760 | 1.43780 | 1.45020 |
| 1.556 | 25.963 | 4.62200 | 1542.60001 | 387.27000 | 1.40040 | 1.73000 | 1.00290 | 1.34390 | 1.47200 | 1.43030 | 1.44180 |
| 1.556 | GRADIENT | 1.00135 | 1.00572 | 1.00816 | 1.00828 | 1.00262 | 1.00684 | 1.00177 | 1.00078 | 1.00325 | 1.00437 |

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OF FOUR QUALITY

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SPEF = 2690.0000 SO.FT. XTRP = 1075.6800 IN. X0
LPEF = 474.6080 IN. YTRP = .0000 IN. Y0
BRSF = 935.6800 IN. ZTRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AIRON = .000 BREFAP = -7.170

| MACH | ALPHA | BETA | PT | RN/L | 3.05 | GRADIENT INTERVAL = -5.00/ 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------------------------------|---------|---------|---------|---------|---------|--------|-------|
| 1.750 | -0.038 | 4.74660 | 1651.50000 | 309.98000 | 1.83610 | 2.23530 | 1.12190 | 1.45170 | 1.12190 | 1.45170 | .53940 | .49760 | |
| 1.750 | 1.946 | 4.75010 | 1653.60000 | 310.38000 | 1.83810 | 2.22510 | 1.13420 | 1.46310 | 1.13420 | 1.46310 | .53270 | .50070 | |
| 1.750 | 3.984 | 4.75090 | 1652.20000 | 310.11000 | 1.82550 | 2.22210 | 1.14430 | 1.46070 | 1.14430 | 1.46070 | .51750 | .50500 | |
| 1.750 | 6.031 | 4.74900 | 1649.39999 | 308.58000 | 1.81580 | 2.20310 | 1.14910 | 1.45610 | 1.14910 | 1.45610 | .50700 | .51470 | |
| 1.750 | 8.093 | 4.74820 | 1647.88999 | 308.32000 | 1.80070 | 2.18930 | 1.14440 | 1.47710 | 1.14440 | 1.47710 | .50380 | .52360 | |
| 1.750 | 10.191 | 4.74790 | 1648.60000 | 309.45000 | 1.79000 | 2.17610 | 1.13980 | 1.48210 | 1.13980 | 1.48210 | .51180 | .51350 | |
| 1.750 | 12.197 | 4.75020 | 1648.60000 | 306.45000 | 1.78200 | 2.15460 | 1.12850 | 1.47410 | 1.12850 | 1.47410 | .49470 | .47510 | |
| 1.750 | 14.251 | 4.75770 | 1649.39999 | 309.58000 | 1.73500 | 2.13450 | 1.11480 | 1.48540 | 1.11480 | 1.48540 | .49360 | .48290 | |
| 1.750 | 16.409 | 4.76170 | 1660.60000 | 309.85000 | 1.70300 | 2.10180 | 1.09100 | 1.47740 | 1.09100 | 1.47740 | .48560 | .43390 | |
| 1.750 | 20.520 | 4.77248 | 1652.20000 | 310.11000 | 1.63290 | 2.04180 | 1.06370 | 1.46950 | 1.06370 | 1.46950 | .42600 | .43170 | |
| 1.750 | 22.583 | 4.77730 | 1661.50000 | 309.98000 | 1.99880 | 2.01000 | 1.04990 | 1.48200 | 1.04990 | 1.48200 | .40360 | .41800 | |
| 1.750 | 24.654 | 4.78130 | 1692.20000 | 310.11000 | 1.95970 | 1.98420 | 1.02750 | 1.47950 | 1.02750 | 1.47950 | .38950 | .40440 | |
| 1.750 | 25.675 | 4.78400 | 1650.00000 | 309.72000 | 1.93530 | 1.97030 | 1.00930 | 1.48450 | 1.00930 | 1.48450 | .38950 | .40184 | |
| | GRADIENT | .00107 | .17018 | .03198 | -.00265 | -.00328 | .00557 | .00222 | .00557 | .00222 | -.00542 | .00184 | |

| MACH | ALPHA | BETA | PT | RN/L | 3.05 | GRADIENT INTERVAL = -5.00/ 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------------------------------|---------|---------|---------|---------|---------|---------|-------|
| 1.997 | -0.010 | 4.41340 | 1815.30000 | 233.33000 | 2.04640 | 2.53490 | 1.15670 | 1.54440 | 1.15670 | 1.54440 | .46260 | .41850 | |
| 1.997 | 2.040 | 4.41126 | 1815.60000 | 233.24000 | 2.03710 | 2.52700 | 1.15880 | 1.54650 | 1.15880 | 1.54650 | .45580 | .40920 | |
| 1.997 | 6.158 | 4.41040 | 1816.30000 | 233.33000 | 2.01850 | 2.49870 | 1.17490 | 1.56560 | 1.17490 | 1.56560 | .40370 | .42200 | |
| 1.997 | 8.222 | 4.41140 | 1816.30000 | 233.33000 | 1.99330 | 2.46420 | 1.16050 | 1.56860 | 1.16050 | 1.56860 | .45140 | .41040 | |
| 1.997 | 10.282 | 4.41040 | 1815.60000 | 233.24000 | 1.97710 | 2.43800 | 1.15950 | 1.57230 | 1.15950 | 1.57230 | .42390 | .39240 | |
| 1.997 | 12.323 | 4.41336 | 1815.60000 | 233.24000 | 1.95330 | 2.42150 | 1.15790 | 1.57000 | 1.15790 | 1.57000 | .40390 | .40390 | |
| 1.997 | 14.339 | 4.41570 | 1816.30000 | 233.33000 | 1.92750 | 2.38850 | 1.15380 | 1.56940 | 1.15380 | 1.56940 | .39760 | .37560 | |
| 1.997 | 16.537 | 4.41796 | 1816.30000 | 233.33000 | 1.89960 | 2.36910 | 1.12850 | 1.56710 | 1.12850 | 1.56710 | .36270 | .37560 | |
| 1.997 | 20.645 | 4.42750 | 1815.60000 | 233.24000 | 1.81400 | 2.30120 | 1.10000 | 1.57950 | 1.10000 | 1.57950 | .35050 | .38430 | |
| 1.997 | 22.718 | 4.43420 | 1815.60000 | 233.24000 | 1.76180 | 2.25080 | 1.05640 | 1.57150 | 1.05640 | 1.57150 | .32340 | .33030 | |
| 1.997 | 24.788 | 4.43970 | 1816.30000 | 233.33000 | 1.70500 | 2.20940 | 1.02050 | 1.57700 | 1.02050 | 1.57700 | .30840 | .32350 | |
| | GRADIENT | -.00094 | -.34492 | -.04435 | -.08458 | -.00889 | .00153 | .00403 | .00153 | .00403 | -.00345 | -.01173 | |

(AE7R77) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

TABULATED DATA - OAM61 (ARC 11-97-87-094)

ARC 11-97-87-094 OAM61 ORBITER

REFERENCE DATA

SREF = 2899.0000 SQ.FT. XMRP = 1076.6809 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0360

RUN NO. 3454 0 RWL = 3.05 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 2.249 | -1.096 | 4.11650 | 2651.70001 | 179.53000 | 2.32810 | 2.93350 | 1.22490 | 1.66500 | -4.3810 | .40230 | .39240 |
| 2.249 | 1.690 | 4.11420 | 2066.20001 | 178.84000 | 2.32870 | 2.94900 | 1.24810 | 1.67820 | 4.2950 | 4.0580 | 3.7930 |
| 2.249 | 3.931 | 4.11260 | 2070.89939 | 179.33000 | 2.31940 | 2.90900 | 1.25750 | 1.68740 | 4.2440 | 3.7830 | 3.7500 |
| 2.249 | 5.987 | 4.11170 | 2070.20001 | 179.27000 | 2.30360 | 2.89450 | 1.25480 | 1.68990 | 4.2520 | 3.7180 | 3.7470 |
| 2.249 | 10.090 | 4.11160 | 2070.26631 | 179.27000 | 2.27700 | 2.81950 | 1.25980 | 1.68870 | 39450 | 3.7520 | 3.8100 |
| 2.249 | 12.125 | 4.11300 | 2070.82999 | 179.33000 | 2.26340 | 2.81100 | 1.25940 | 1.72000 | 3.7170 | 3.7240 | 3.8110 |
| 2.249 | 14.203 | 4.11280 | 2070.20001 | 179.27000 | 2.24840 | 2.77430 | 1.24790 | 1.72160 | 3.6390 | 3.6160 | 3.6650 |
| 2.249 | 16.304 | 4.11570 | 2070.85999 | 179.33000 | 2.22490 | 2.73770 | 1.25260 | 1.72100 | 3.5820 | 3.5770 | 3.6170 |
| 2.249 | 18.407 | 4.12000 | 2071.60001 | 179.33000 | 2.18680 | 2.70510 | 1.24830 | 1.73130 | 3.5970 | 3.5740 | 3.6230 |
| 2.249 | 20.420 | 4.12300 | 2070.89939 | 179.33000 | 2.16790 | 2.67120 | 1.24980 | 1.73180 | 3.4950 | 2.8720 | 2.9560 |
| 2.249 | 22.499 | 4.12960 | 2070.89939 | 179.33000 | 2.10190 | 2.63850 | 1.19110 | 1.73280 | 3.4780 | 2.8470 | 2.9560 |
| 2.249 | 24.551 | 4.13110 | 2070.89939 | 179.33000 | 2.09370 | 2.58320 | 1.14290 | 1.73190 | 3.4140 | 2.7420 | 2.7320 |
| 2.249 | 25.571 | 4.13390 | 2070.89939 | 179.33000 | 2.03600 | 2.55510 | 1.09980 | 1.71890 | 3.4120 | 2.6810 | 2.6610 |
| GRADIENT | | | | .19950 | -.00218 | -.00640 | .00608 | .00556 | -.00340 | -.00608 | -.00431 |

RUN NO. 4207 0 RWL = 2.00 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 2.499 | 1.106 | 5.18470 | 1471.80000 | 86.32100 | 2.56990 | 3.45480 | 1.26110 | 1.82470 | 5.1820 | .39980 | .37620 |
| 2.499 | 2.137 | 5.15770 | 1473.20000 | 86.40400 | 2.55620 | 3.43680 | 1.25610 | 1.87740 | 4.9080 | 3.6940 | 3.4470 |
| 2.499 | 4.180 | 5.13550 | 1472.50000 | 86.35300 | 2.55680 | 3.42250 | 1.26960 | 1.89580 | 4.8200 | 3.5490 | 3.3910 |
| 2.499 | 6.215 | 5.11650 | 1472.50000 | 86.36300 | 2.55370 | 3.42290 | 1.28190 | 1.93170 | 4.8870 | 3.7130 | 3.5070 |
| 2.499 | 8.260 | 5.10230 | 1473.20000 | 86.40400 | 2.52840 | 3.39960 | 1.28670 | 1.93420 | 4.7560 | 3.5320 | 3.6650 |
| 2.499 | 10.293 | 5.09320 | 1473.20000 | 86.40400 | 2.51660 | 3.39350 | 1.27930 | 1.94110 | 4.4690 | 3.3180 | 3.0820 |
| 2.499 | 12.350 | 5.08760 | 1473.20000 | 86.46400 | 2.48320 | 3.34050 | 1.26400 | 1.94450 | 4.1690 | 2.8130 | 2.8930 |
| 2.499 | 14.366 | 5.08510 | 1473.20000 | 86.40400 | 2.45670 | 3.30870 | 1.25430 | 1.95010 | 4.0820 | 2.7440 | 2.8470 |
| 2.499 | 16.431 | 5.08530 | 1473.20000 | 86.40400 | 2.42300 | 3.25850 | 1.24640 | 1.94930 | 4.0370 | 2.7110 | 2.7830 |
| 2.499 | 18.469 | 5.09260 | 1473.20000 | 86.40400 | 2.38900 | 3.21280 | 1.26610 | 1.95410 | 3.8910 | 2.5740 | 2.6930 |
| 2.499 | 20.509 | 5.10370 | 1473.20000 | 86.40400 | 2.35900 | 3.15750 | 1.20230 | 1.97330 | 3.6820 | 2.5660 | 2.4640 |
| 2.499 | 22.559 | 5.11660 | 1473.20000 | 86.40400 | 2.27650 | 3.10550 | 1.17790 | 1.97200 | 3.7970 | 2.5420 | 2.4600 |
| 2.499 | 24.602 | 5.13520 | 1473.20000 | 86.40400 | 2.25730 | 3.09430 | 1.14930 | 1.98270 | 3.9960 | 2.7280 | 2.6670 |
| 2.499 | 25.622 | 5.14500 | 1473.20000 | 86.40400 | 2.20520 | 3.03240 | 1.13330 | 1.92270 | 3.9550 | 2.6390 | 2.6390 |
| GRADIENT | | | | .01028 | -.00321 | -.00795 | .00209 | .00298 | -.00868 | -.00868 | -.00954 |

TABULATED DATA - OAT161 (ARC 11-97-87-094)
ARC 11-97-87-094* OAT161 ORBITER

REFERENCE DATA

SFEF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.000 IN. ZQ
SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALTRON = .008 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.040 | .103 | 5.34720 | 1971.20000 | 50.57400 | 3.10680 | 4.50960 | 1.33580 | 2.25810 | .52560 | .34330 | .32570 |
| 3.040 | 2.135 | 5.32150 | 1971.20000 | 50.57400 | 3.11030 | 4.49210 | 1.34980 | 2.26540 | 50480 | 33280 | 29070 |
| 3.040 | 4.159 | 5.29880 | 1971.20000 | 50.57400 | 3.08900 | 4.46630 | 1.33210 | 2.26540 | 45730 | 29210 | 25350 |
| 3.040 | 6.187 | 5.26020 | 1971.89999 | 50.59200 | 3.08566 | 4.44790 | 1.34750 | 2.27800 | 46270 | 28710 | 26250 |
| 3.040 | 8.269 | 5.22440 | 1971.20000 | 50.57400 | 3.06890 | 4.42610 | 1.34970 | 2.29190 | 43200 | 29140 | 23870 |
| 3.040 | 10.259 | 5.25570 | 1971.20000 | 50.57400 | 3.06170 | 4.37820 | 1.34630 | 2.31480 | 41980 | 24090 | 22680 |
| 3.040 | 12.238 | 5.24790 | 1971.89999 | 50.57400 | 3.02576 | 4.35040 | 1.33920 | 2.33760 | 40100 | 22990 | 21480 |
| 3.040 | 14.329 | 5.24580 | 1971.20000 | 50.57400 | 2.99080 | 4.29320 | 1.32690 | 2.34140 | 39320 | 22820 | 21420 |
| 3.040 | 15.362 | 5.25010 | 1971.20000 | 50.57400 | 2.94248 | 4.23970 | 1.31100 | 2.33760 | 20350 | 20260 | 19650 |
| 3.040 | 18.399 | 5.25370 | 1971.20000 | 50.57400 | 2.89830 | 4.17290 | 1.29710 | 2.35400 | 36520 | 20260 | 19520 |
| 3.040 | 20.433 | 5.26360 | 1971.20000 | 50.57400 | 2.84120 | 4.11150 | 1.28660 | 2.37450 | 36720 | 21630 | 19520 |
| 3.040 | 22.466 | 5.27650 | 1971.29000 | 50.57400 | 2.77710 | 4.03580 | 1.25120 | 2.37280 | 35120 | 20008 | 17540 |
| 3.040 | 24.498 | 5.29440 | 1971.20000 | 50.57400 | 2.73028 | 3.95800 | 1.22520 | 2.37590 | 35220 | 21490 | 19030 |
| 3.040 | 25.517 | 5.30350 | 1971.20000 | 50.57400 | 2.68810 | 3.92290 | 1.21120 | 2.37230 | 36220 | 22540 | 19030 |
| GRADIENT | | -.01193 | .00000 | .06000 | -.00438 | -.01057 | -.00094 | .00126 | -.01683 | -.01262 | -.01780 |

GRADIENT INTERVAL = 1.95 RUN NO. 421/ 0 RWL = 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| 3.499 | 1.182 | 5.47470 | 2682.00000 | 35.22500 | 3.69090 | 5.56930 | 1.43580 | 2.62110 | .56690 | .32580 | .30070 |
| 3.499 | 1.836 | 5.45060 | 2684.10001 | 35.25300 | 3.67200 | 5.50550 | 1.42660 | 2.59700 | 49730 | 28130 | 25110 |
| 3.499 | 3.868 | 5.42680 | 2682.00000 | 35.22500 | 3.66380 | 5.49250 | 1.43310 | 2.62880 | 48860 | 29260 | 24240 |
| 3.499 | 5.892 | 5.40760 | 2682.70001 | 35.23400 | 3.67190 | 5.49190 | 1.46490 | 2.66640 | 48450 | 29350 | 24820 |
| 3.499 | 7.919 | 5.39100 | 2684.10001 | 35.25300 | 3.65590 | 5.43800 | 1.44700 | 2.65690 | 46310 | 27330 | 24220 |
| 3.499 | 11.986 | 5.37660 | 2683.39999 | 35.24400 | 3.61570 | 5.37710 | 1.47290 | 2.65690 | 45410 | 26350 | 22830 |
| 3.499 | 14.004 | 5.37600 | 2683.39999 | 35.24400 | 3.55330 | 5.29290 | 1.44170 | 2.71870 | 40600 | 21490 | 18980 |
| 3.499 | 18.062 | 5.37590 | 2682.70001 | 35.23400 | 3.50210 | 5.17970 | 1.42270 | 2.72360 | 38800 | 21720 | 20220 |
| 3.499 | 18.068 | 5.38310 | 2683.39999 | 35.24400 | 3.47720 | 5.14780 | 1.43540 | 2.77490 | 42200 | 24640 | 23140 |
| 3.499 | 20.102 | 5.39120 | 2682.00000 | 35.22500 | 3.37620 | 5.04070 | 1.36970 | 2.73750 | 36890 | 18790 | 18290 |
| 3.499 | 22.135 | 5.40650 | 2683.39999 | 35.24400 | 3.31830 | 4.95080 | 1.36440 | 2.74570 | 35980 | 20400 | 16890 |
| 3.499 | 24.165 | 5.42170 | 2681.29999 | 35.21600 | 3.23410 | 4.85430 | 1.32710 | 2.76110 | 36100 | 21070 | 16480 |
| 3.499 | 25.182 | 5.43390 | 2684.10001 | 35.25300 | 3.19690 | 4.81390 | 1.30880 | 2.75600 | 36470 | 21400 | 16880 |
| GRADIENT | | -.01180 | -.00123 | -.00002 | -.00669 | -.01892 | -.00066 | .00192 | -.01931 | -.00818 | -.01436 |

GRADIENT INTERVAL = 2.00 RUN NO. 430/ 0 RWL = 5.00

TABULATED DATA - 0A161 (ARC 11-97-87-084)
 ARC 11-97-87-084 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AIRLON = 2.500 BOFLAP = -7.170

RUN NO. 1607 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|--------|---------|--------|
| .597 | .137 | -4.98820 | 2617.60001 | 2056.79999 | 1.08620 | 1.00190 | 1.00290 | .95660 | .95400 | .94590 | .95540 |
| .597 | 2.147 | -4.96780 | 2617.60001 | 2056.79999 | 1.08760 | 1.00390 | 1.00640 | .95970 | .95480 | .94520 | .96600 |
| .598 | 4.194 | -4.93470 | 2617.60001 | 2056.10001 | 1.08000 | 1.00460 | 1.01060 | .96240 | .95500 | .94580 | .95650 |
| .597 | 6.270 | -4.92660 | 2618.29999 | 2056.79999 | 1.08970 | 1.00780 | 1.01330 | .96290 | .95350 | .94640 | .96650 |
| .597 | 8.363 | -4.91650 | 2618.29999 | 2057.60001 | 1.08740 | 1.00100 | 1.01405 | .96210 | .95320 | .94758 | .96900 |
| .597 | 10.474 | -4.90530 | 2619.00000 | 2057.60001 | 1.08340 | .98650 | 1.01280 | .96180 | .95490 | .94870 | .96890 |
| .597 | 12.585 | -4.87930 | 2619.00000 | 2057.60001 | 1.07780 | .99180 | 1.01140 | .95980 | .95330 | .94780 | .97200 |
| .597 | 14.691 | -4.87678 | 2619.00000 | 2057.60001 | 1.07040 | .98350 | 1.00900 | .95650 | .95030 | .94550 | .97590 |
| .597 | 16.791 | -4.87678 | 2619.00000 | 2057.60001 | 1.06190 | .97430 | 1.00530 | .95120 | .94780 | .94060 | .95190 |
| .597 | 18.909 | -4.90030 | 2619.00000 | 2057.60001 | 1.05140 | .96370 | .99950 | .94620 | .94490 | .93610 | .94380 |
| .597 | 21.013 | -4.90120 | 2619.00000 | 2058.29999 | 1.03730 | .95120 | .99340 | .93680 | .94180 | .93050 | .93490 |
| .597 | 23.117 | -4.89310 | 2619.00000 | 2058.29999 | 1.02320 | .93560 | .98430 | .92890 | .93850 | .92900 | .93190 |
| .597 | 25.204 | -4.88300 | 2619.70001 | 2059.00000 | 1.00890 | .92000 | .97690 | .91850 | .93100 | .92840 | .92560 |
| .598 | 26.286 | -4.87030 | 2619.70001 | 2057.60001 | 1.00410 | .91180 | .97180 | .91620 | .92190 | .92630 | .91540 |
| | GRADIENT | -.00159 | .00002 | -.17306 | .00084 | .00066 | .00190 | .00143 | .00025 | -.00025 | .00027 |

RUN NO. 1617 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .900 | .110 | -4.96780 | 2106.20001 | 1245.30000 | 1.24810 | 1.04780 | 1.02650 | .90700 | .88690 | .86810 | .87680 |
| .901 | 2.177 | -4.96670 | 2106.20001 | 1243.89999 | 1.25040 | 1.05480 | 1.04140 | .92430 | .88790 | .86900 | .88220 |
| .901 | 4.238 | -4.97330 | 2106.00000 | 1243.89999 | 1.25420 | 1.05520 | 1.05280 | .93420 | .88750 | .86920 | .88620 |
| .899 | 6.368 | -4.96170 | 2106.20001 | 1246.70000 | 1.25250 | 1.05280 | 1.06300 | .94320 | .89210 | .87340 | .88850 |
| .899 | 8.485 | -4.94890 | 2107.00000 | 1246.70000 | 1.24880 | 1.04350 | 1.06930 | .94990 | .88520 | .87160 | .89050 |
| .899 | 10.612 | -4.94230 | 2107.00000 | 1247.39999 | 1.24230 | 1.03740 | 1.07300 | .95250 | .88330 | .87160 | .89050 |
| .899 | 12.739 | -4.93200 | 2107.00000 | 1246.70000 | 1.23300 | 1.02700 | 1.07460 | .95490 | .87400 | .86550 | .87960 |
| .903 | 14.863 | -4.93200 | 2125.29999 | 1255.89999 | 1.22170 | 1.01300 | 1.07360 | .95300 | .86060 | .84750 | .86580 |
| .901 | 17.025 | -4.94330 | 2127.50000 | 1255.89999 | 1.20350 | .99460 | 1.05700 | .94400 | .84940 | .83650 | .85340 |
| .908 | 19.172 | -4.96970 | 2127.50000 | 1258.70000 | 1.18340 | .96820 | 1.05820 | .93280 | .83330 | .82020 | .83920 |
| .908 | 21.310 | -4.96800 | 2128.20001 | 1258.70000 | 1.16230 | .94570 | 1.05090 | .92420 | .81750 | .80540 | .82460 |
| .902 | 23.425 | -4.95460 | 2125.29999 | 1256.60001 | 1.13400 | .91350 | 1.03550 | .90510 | .77810 | .76820 | .78510 |
| .902 | 25.498 | -4.94530 | 2125.29999 | 1253.80000 | 1.10840 | .88170 | 1.02190 | .88960 | .74360 | .73460 | .75260 |
| .899 | 26.506 | -4.91220 | 2124.60001 | 1257.36000 | 1.09320 | .86280 | 1.01060 | .87890 | .73390 | .72460 | .74690 |
| | GRADIENT | -.00153 | .19305 | -.33717 | .00123 | .00178 | .00534 | .00556 | .00614 | .00041 | .00231 |

(1AETR1B* (02 AUG 75)

ARC 11-97-87-094 0A1.1 ORBITER

REFERENCE DATA

SREF = 2699.0000 SQ. FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRPF = 938.2808 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -5.090 ELEVON = .000
 APLRON = 2.580 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | RV/L | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|------|-------------------|---------|---------|---------|---------|--------|--------|--------|
| 1.198 | .102 | -4.97120 | 1988.80000 | 821.89000 | 4.22 | 5.00 | 1.60410 | 1.28430 | 1.05630 | 1.07850 | .67560 | .64920 | .65240 |
| 1.200 | 2.178 | -4.96650 | 1988.80000 | 820.50000 | | | 1.60740 | 1.29680 | 1.07850 | .67900 | .65070 | .65070 | .65220 |
| 1.199 | 4.278 | -4.96650 | 1988.80000 | 821.20000 | | | 1.60480 | 1.24940 | 1.08950 | .67900 | .65600 | .65600 | .65560 |
| 1.198 | 8.545 | -4.94420 | 1988.80000 | 824.68000 | | | 1.58870 | 1.23020 | 1.09750 | .66990 | .63680 | .63680 | .62750 |
| 1.195 | 10.698 | -4.93260 | 1988.80000 | 825.37000 | | | 1.57580 | 1.21070 | 1.01480 | .65800 | .62220 | .62220 | 6.1040 |
| 1.196 | 12.856 | -4.94070 | 1991.00000 | 825.39000 | | | 1.56420 | 1.19290 | 1.00030 | .65870 | .61950 | .61950 | .60520 |
| 1.197 | 15.028 | -4.95710 | 1990.50000 | 823.99000 | | | 1.54890 | 1.16880 | 1.25500 | .65170 | .60810 | .60810 | .58700 |
| 1.198 | 17.189 | -4.95200 | 1999.60000 | 825.09000 | | | 1.52890 | 1.14720 | 1.25630 | .63840 | .57930 | .57930 | .57650 |
| 1.196 | 21.589 | -4.95860 | 1992.39000 | 825.09000 | | | 1.47760 | 1.09080 | 1.19440 | .62980 | .59880 | .59880 | .59990 |
| 1.195 | GRADIENT | .00113 | .00000 | -.16422 | | | .00016 | -.00237 | .00498 | .00795 | .00081 | .00163 | .00077 |

| MACH | ALPHA | BETA | PT | P | RV/L | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|------|-------------------|---------|---------|---------|---------|--------|--------|--------|
| 1.404 | .078 | -4.97920 | 2039.80000 | 636.90000 | 4.21 | 5.00 | 1.86476 | 1.41000 | 1.33990 | 1.02990 | .59660 | .56790 | .57200 |
| 1.402 | 4.234 | -4.97250 | 2038.39999 | 639.13000 | | | 1.85950 | 1.38990 | 1.34890 | 1.03870 | .60530 | .57800 | .57640 |
| 1.400 | 8.490 | -4.93810 | 2039.80000 | 641.32000 | | | 1.84190 | 1.34950 | 1.33790 | 1.03100 | .60490 | .58070 | .54600 |
| 1.399 | 10.633 | -4.94760 | 2039.80000 | 642.06000 | | | 1.82710 | 1.32680 | 1.33460 | 1.03420 | .60190 | .57420 | .53510 |
| 1.400 | 12.779 | -4.95450 | 2039.80000 | 641.32000 | | | 1.81650 | 1.31110 | 1.33260 | 1.03120 | .59130 | .54330 | .51640 |
| 1.398 | 14.946 | -4.97770 | 2040.50000 | 642.78000 | | | 1.79010 | 1.28390 | 1.33140 | 1.01570 | .58340 | .53580 | .48510 |
| 1.397 | 17.102 | -4.95930 | 2041.20000 | 644.24000 | | | 1.76778 | 1.25970 | 1.32270 | 1.00180 | .57610 | .46600 | .46600 |
| 1.396 | 21.449 | -4.97150 | 2040.50000 | 649.41000 | | | 1.70080 | 1.20140 | 1.29790 | .96970 | .48180 | .48180 | .50230 |
| 1.396 | GRADIENT | .00161 | -.33691 | .53665 | | | -.00116 | -.00484 | .00217 | .00214 | .00209 | .00200 | .00106 |

(AETR19) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
A1LRON = 2.500 BDFLAP = -7.170

TABULATED DATA - 0A16L (ARC 11-97-87-08*)

ARC 11-97-87-08* 0A16L ORBITER

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 159 0 RML = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | P56/P | P57/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|--------|---------|--------|
| .597 | .104 | -1.87680 | 2616.89999 | 2056.79999 | 1.06490 | 1.02420 | .98990 | .96540 | .93450 | .94780 | .95610 |
| .597 | 2.124 | -1.85230 | 2616.89999 | 2056.79999 | 1.06570 | 1.02480 | .99340 | .96960 | .93470 | .94570 | .95550 |
| .597 | 4.172 | -1.84450 | 2616.89999 | 2056.79999 | 1.06770 | 1.02720 | .99710 | .97280 | .93630 | .94760 | .95810 |
| .596 | 6.250 | -1.83580 | 2616.89999 | 2057.60001 | 1.06770 | 1.02560 | .99970 | .97490 | .93570 | .94850 | .95870 |
| .596 | 8.337 | -1.82540 | 2616.89999 | 2057.60001 | 1.06570 | 1.02300 | 1.00040 | .97460 | .93480 | .94920 | .95950 |
| .596 | 10.446 | -1.81580 | 2616.89999 | 2057.60001 | 1.06190 | 1.01810 | .99930 | .97430 | .93400 | .94700 | .95840 |
| .596 | 12.572 | -1.80620 | 2616.89999 | 2057.60001 | 1.05530 | 1.01390 | .99770 | .97250 | .93380 | .94730 | .95760 |
| .597 | 14.869 | -1.79660 | 2616.89999 | 2057.60001 | 1.04850 | 1.00900 | .99360 | .96930 | .93130 | .94680 | .95380 |
| .597 | 16.803 | -1.78690 | 2616.89999 | 2057.60001 | 1.03990 | .99520 | .98930 | .96430 | .92870 | .94440 | .94910 |
| .597 | 18.935 | -1.77730 | 2616.89999 | 2057.60001 | 1.02910 | .98180 | .98590 | .96010 | .92330 | .94190 | .94490 |
| .597 | 21.050 | -1.76770 | 2616.89999 | 2057.60001 | 1.01700 | .96720 | .97620 | .95140 | .91630 | .93750 | .93330 |
| .597 | 23.139 | -1.75810 | 2616.89999 | 2057.60001 | .99960 | .95740 | .96800 | .94350 | .91100 | .93660 | .93350 |
| .598 | 25.211 | -1.74850 | 2616.89999 | 2057.60001 | .98820 | .94800 | .95890 | .93510 | .90560 | .93560 | .93300 |
| .597 | 26.209 | -1.73890 | 2616.89999 | 2057.60001 | .97690 | .93440 | .95610 | .92960 | .89860 | .93430 | .93260 |
| | GRADIENT | .00793 | -.00002 | -.00002 | .00074 | .00177 | .00182 | .00182 | .00049 | -.00005 | .00049 |

RUN NO. 162 0 RML = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | P56/P | P57/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|---------|--------|--------|
| .900 | .076 | -1.87970 | 2124.60001 | 1256.60001 | 1.19950 | 1.09970 | .99730 | .93080 | .88600 | .85850 | .86720 |
| .902 | 2.149 | -1.87200 | 2126.79999 | 1255.20000 | 1.20210 | 1.10420 | 1.01230 | .94460 | .89240 | .87360 | .89030 |
| .903 | 4.235 | -1.86680 | 2128.20001 | 1254.50000 | 1.20530 | 1.10520 | 1.02310 | .95720 | .88690 | .87260 | .89000 |
| .901 | 6.349 | -1.86190 | 2128.20001 | 1257.30003 | 1.20280 | 1.10200 | .98660 | .96860 | .89380 | .87730 | .89250 |
| .902 | 8.464 | -1.85530 | 2126.79999 | 1255.20000 | 1.20110 | 1.09720 | 1.03810 | .97560 | .89100 | .87190 | .89170 |
| .899 | 10.662 | -1.84370 | 2126.79999 | 1256.80000 | 1.19020 | 1.08790 | 1.04020 | .97850 | .88530 | .86940 | .88910 |
| .903 | 12.742 | -1.84190 | 2127.50000 | 1254.50000 | 1.18560 | 1.07850 | 1.04420 | .98200 | .88750 | .86970 | .88770 |
| .900 | 14.860 | -1.83140 | 2127.50000 | 1257.30000 | 1.16930 | 1.06120 | 1.03790 | .97440 | .88570 | .84300 | .89910 |
| .899 | 17.024 | -1.82100 | 2126.79999 | 1257.30000 | 1.15310 | 1.04460 | 1.03600 | .97410 | .88780 | .83240 | .89870 |
| .899 | 19.200 | -1.80910 | 2127.50000 | 1259.50000 | 1.13170 | 1.01970 | 1.02560 | .96490 | .86300 | .81499 | .89500 |
| .899 | 21.341 | -1.79610 | 2126.79999 | 1259.50000 | 1.10530 | .99490 | 1.01220 | .95280 | .86760 | .78520 | .89210 |
| .899 | 23.442 | -1.78190 | 2127.50000 | 1257.30000 | 1.08460 | .97070 | .99990 | .93960 | .87590 | .76420 | .89420 |
| .899 | 25.490 | -1.76590 | 2127.50000 | 1256.70000 | 1.05660 | .93710 | .98220 | .91890 | .85330 | .71070 | .89890 |
| .903 | 26.503 | -1.73300 | 2124.60001 | 1255.89999 | 1.04110 | .92200 | .97490 | .91560 | .84340 | .73078 | .89620 |
| | GRADIENT | .00277 | .86587 | -.50503 | .00140 | .00147 | .00621 | .00635 | -.00027 | .00098 | .00067 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

1AE7R19* (02 AUG 75)

REFERENCE DATA

SREF = 2627.0000 SQ.FT. XMRP = 1076.6800 IN. X0'
 LREF = 474.8000 IN. YMRP = 0000.0000 IN. Y0'
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0'
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 APERON = 2.500 BDFLAP = -7.170

RUN NO. 1697 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|-------|-----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.200 | .080 | -1.88630 | 1992.39999 | 821.92000 | 1.52120 | 1.34240 | 1.23690 | 1.08650 | .68270 | .63620 | .66010 |
| 1.198 | 4.248 | -1.87220 | 1990.30000 | 821.90000 | 1.52040 | 1.34060 | 1.23570 | 1.11690 | .68060 | .65760 | .65970 |
| 1.197 | 8.536 | -1.84220 | 1991.70000 | 824.69000 | 1.50870 | 1.31450 | 1.24820 | 1.09660 | .67400 | .65090 | .63820 |
| 1.199 | 10.700 | -1.83130 | 1991.70000 | 823.30000 | 1.49790 | 1.30070 | 1.23060 | 1.05320 | .67110 | .64860 | .62930 |
| 1.196 | 12.850 | -1.83700 | 1991.70000 | 825.39000 | 1.49530 | 1.28100 | 1.20620 | 1.05180 | .66220 | .67490 | .61690 |
| 1.197 | 15.004 | -1.87320 | 1993.60001 | 823.29000 | 1.46680 | 1.25760 | 1.19170 | 1.03740 | .64870 | .64160 | .59250 |
| 1.196 | 17.219 | -1.91640 | 1990.30000 | 824.68000 | 1.44450 | 1.22540 | 1.17280 | 1.02570 | .63550 | .62240 | .56900 |
| 1.198 | 21.550 | -1.87850 | 1992.39999 | 823.31000 | 1.39130 | 1.17610 | 1.13080 | 1.00700 | .62730 | .61720 | .53060 |
| | GRADIENT: | .00338 | -.50388 | -.80480 | -.00019 | -.00187 | .00475 | .09727 | -.00050 | .00034 | -.00034 |

RUN NO. 1727 0 RV/L = 4.19 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|-------|-----------|----------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.401 | .049 | -1.88950 | 2039.10001 | 639.86000 | 1.74340 | 1.49770 | 1.25150 | 1.08350 | .61000 | .57910 | .59610 |
| 1.401 | 4.264 | -1.89080 | 2039.80000 | 639.85000 | 1.74510 | 1.47710 | 1.26970 | 1.09390 | .61270 | .58820 | .58070 |
| 1.387 | 8.569 | -1.87690 | 2039.10001 | 643.54000 | 1.71710 | 1.43800 | 1.25450 | 1.08640 | .60920 | .56940 | .55610 |
| 1.395 | 10.750 | -1.85890 | 2039.80000 | 644.27000 | 1.70580 | 1.41550 | 1.24530 | 1.08850 | .60350 | .56130 | .53750 |
| 1.397 | 12.878 | -1.84320 | 2039.80000 | 643.53000 | 1.68990 | 1.39910 | 1.24990 | 1.08730 | .59440 | .61240 | .52320 |
| 1.398 | 14.971 | -1.84360 | 2040.50000 | 642.78000 | 1.67960 | 1.37960 | 1.24430 | 1.08000 | .59190 | .61490 | .51050 |
| 1.398 | 17.101 | -1.82320 | 2039.10001 | 642.81000 | 1.64740 | 1.36130 | 1.22680 | 1.07580 | .58070 | .63670 | .49590 |
| 1.396 | 21.408 | -1.84740 | 2041.20000 | 644.98000 | 1.58660 | 1.31830 | 1.19890 | 1.05318 | .58210 | .57100 | .46330 |
| | GRADIENT: | .00211 | .16610 | -.80237 | .00040 | -.00489 | .00432 | .00197 | .00064 | .00216 | -.00128 |

(AE7R28) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-67-094)

ARC 11-97-67-094 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .008
ATLIRON = 2.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0390

RUN NO. 158/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|--------|--------|--------|--------|--------|
| .597 | .094 | .16180 | 2616.20001 | 2056.10001 | 1.05040 | 1.03690 | .98170 | .97310 | .95920 | .94570 | .95970 |
| .597 | 2.118 | .20970 | 2615.20001 | 2056.10001 | 1.05190 | 1.04000 | .98650 | .97900 | .95920 | .94740 | .95820 |
| .597 | 4.175 | .20940 | 2616.89999 | 2056.10001 | 1.05200 | 1.04130 | .98930 | .97900 | .95560 | .94870 | .95650 |
| .596 | 6.242 | .21410 | 2616.89999 | 2057.60001 | 1.05130 | 1.03950 | .99060 | .98200 | .95620 | .94760 | .95760 |
| .597 | 8.335 | .22150 | 2617.60001 | 2057.60001 | 1.05020 | 1.03820 | .99160 | .98300 | .95490 | .94720 | .95710 |
| .597 | 10.433 | .22190 | 2616.89999 | 2056.79999 | 1.04710 | 1.03430 | .99050 | .98310 | .95590 | .94720 | .95730 |
| .598 | 12.526 | .21770 | 2617.60001 | 2058.29999 | 1.04180 | 1.02840 | .98770 | .98090 | .95330 | .94830 | .95730 |
| .596 | 14.643 | .23280 | 2617.60001 | 2058.29999 | 1.04420 | 1.02060 | .98500 | .97810 | .95100 | .94760 | .95370 |
| .597 | 16.768 | .22720 | 2618.29999 | 2058.29999 | 1.02410 | 1.01090 | .97890 | .97390 | .94710 | .94850 | .94760 |
| .597 | 18.883 | .22660 | 2619.00000 | 2057.60001 | 1.01280 | 1.00140 | .97480 | .97070 | .94300 | .94030 | .94030 |
| .597 | 21.001 | .21590 | 2619.00000 | 2058.29999 | 1.00950 | .98790 | .96780 | .96300 | .93680 | .93370 | .93330 |
| .597 | 23.094 | .21080 | 2619.00000 | 2059.00000 | .98790 | .96790 | .95780 | .95350 | .92740 | .92580 | .92580 |
| .598 | 25.174 | .21920 | 2619.70001 | 2057.60001 | .96990 | .95760 | .94800 | .94600 | .91940 | .91940 | .91940 |
| .597 | 26.187 | .20850 | 2619.00000 | 2058.29999 | .96060 | .94760 | .94110 | .94030 | .91940 | .91940 | .91940 |
| GRADIENT | | .01163 | .17197 | .80002 | .00039 | .00108 | .00161 | .00144 | .00010 | .00049 | .00019 |

RUN NO. 163/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .900 | .066 | .17790 | 2125.29999 | 1255.89999 | 1.14990 | 1.13090 | .97590 | .94690 | .88260 | .86620 | .88130 |
| .901 | 2.145 | .21950 | 2125.29999 | 1255.20000 | 1.13740 | 1.13740 | .99140 | .96100 | .88000 | .87220 | .86590 |
| .900 | 4.245 | .22010 | 2126.10001 | 1257.30000 | 1.16800 | 1.13680 | 1.00270 | .97360 | .89010 | .87570 | .86880 |
| .903 | 6.352 | .21270 | 2126.10001 | 1256.60001 | 1.17020 | 1.13760 | 1.01800 | .98000 | .89690 | .88040 | .89580 |
| .899 | 8.471 | .22330 | 2126.10001 | 1258.80000 | 1.16320 | 1.13070 | 1.01800 | .99270 | .89650 | .87410 | .89400 |
| .900 | 10.606 | .22370 | 2126.79999 | 1258.00000 | 1.15690 | 1.12370 | 1.02120 | .98890 | .88260 | .86680 | .88510 |
| .897 | 12.727 | .21760 | 2126.10001 | 1258.00000 | 1.15160 | 1.11240 | 1.02250 | 1.00030 | .87520 | .86070 | .87830 |
| .899 | 14.861 | .22330 | 2126.10001 | 1257.70000 | 1.14170 | 1.09580 | 1.01680 | .99680 | .85970 | .84590 | .85160 |
| .899 | 17.007 | .22330 | 2126.10001 | 1258.80000 | 1.13170 | 1.08050 | 1.01190 | .99480 | .85040 | .83390 | .84750 |
| .899 | 19.199 | .22360 | 2126.79999 | 1259.50000 | 1.09510 | 1.06370 | 1.00150 | .98730 | .82880 | .81870 | .83280 |
| .901 | 21.293 | .20810 | 2127.50000 | 1256.60001 | 1.07350 | 1.04490 | .99330 | .97660 | .80760 | .79250 | .81440 |
| .895 | 23.381 | .20310 | 2126.79999 | 1256.20000 | 1.04710 | 1.02900 | .97320 | .96140 | .77480 | .76020 | .76840 |
| .906 | 25.460 | .19730 | 2126.79999 | 1256.00000 | 1.02030 | .98250 | .95970 | .94890 | .75080 | .73380 | .73080 |
| .901 | 26.483 | .21230 | 2126.79999 | 1255.89999 | 1.00170 | .96240 | .93980 | .93980 | .73950 | .71360 | .72370 |
| GRADIENT | | .01008 | .19173 | .33611 | .00026 | .00141 | .00461 | .00639 | .00179 | .00227 | .00179 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2898.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8060 IN. YMRP = 0000 IN. YO
BREF = 936.8508 IN. ZMRP = 375.0800 IN. ZO
SCALE = .0300

BETA = .000 ELEVON = .000
AILRON = 2.509 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.200 | .044 | .20070 | 1997.00000 | 821.21000 | 1.48990 | 1.39900 | 1.20240 | 1.11830 | .68660 | .65670 | .67400 |
| 1.199 | 4.266 | .17440 | 1989.50000 | 823.20000 | 1.46170 | 1.39030 | 1.25460 | 1.13920 | .68780 | .66098 | .66310 |
| 1.198 | 6.395 | .19230 | 1980.30000 | 823.20000 | 1.46840 | 1.38280 | 1.23330 | 1.14360 | .68660 | .65220 | .65580 |
| 1.195 | 8.547 | .17296 | 1992.39999 | 826.75000 | 1.44360 | 1.36790 | 1.21390 | 1.11950 | .68000 | .64060 | .64600 |
| 1.194 | 10.714 | .17940 | 1981.00000 | 827.48000 | 1.43360 | 1.35600 | 1.19950 | 1.09680 | .67190 | .62740 | .63720 |
| 1.192 | 12.826 | .17820 | 1991.70000 | 827.00000 | 1.42580 | 1.34050 | 1.18700 | 1.08050 | .66480 | .62420 | .62420 |
| 1.190 | 15.026 | .16060 | 1991.00000 | 823.30000 | 1.40560 | 1.32040 | 1.14570 | 1.07430 | .64760 | .60760 | .59880 |
| 1.188 | 17.194 | .17900 | 1991.00000 | 823.99000 | 1.38520 | 1.29580 | 1.12720 | 1.06560 | .63280 | .59280 | .57530 |
| 1.188 | 21.495 | .20580 | 1994.50000 | 824.72000 | 1.32690 | 1.23700 | 1.08000 | 1.04580 | .61960 | .56830 | .54460 |
| 1.199 | 25.723 | .21760 | 1995.20000 | 824.02000 | 1.26310 | 1.18510 | 1.03120 | 1.02810 | .60150 | .50720 | .52080 |
| | GRADIENT | | | | .00043 | -.00206 | .08526 | .00495 | -.00019 | .00100 | -.00258 |

RUN NO. 168/ 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 173/ 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.403 | .034 | .20070 | 2070.20001 | 648.10800 | 1.67470 | 1.56790 | 1.20280 | 1.12580 | .62180 | .59540 | .60450 |
| 1.402 | 4.266 | .17440 | 2069.50000 | 648.85000 | 1.67520 | 1.55110 | 1.21910 | 1.13680 | .62500 | .59550 | .59610 |
| 1.400 | 6.416 | .19230 | 2070.20001 | 650.32000 | 1.68040 | 1.53420 | 1.22340 | 1.13650 | .62490 | .58610 | .58410 |
| 1.399 | 8.586 | .17296 | 2070.20001 | 652.53000 | 1.64920 | 1.51210 | 1.20900 | 1.13000 | .61690 | .57510 | .56850 |
| 1.398 | 10.764 | .17940 | 2070.20001 | 652.53000 | 1.63450 | 1.49350 | 1.19890 | 1.12710 | .61580 | .57840 | .55910 |
| 1.398 | 12.927 | .17820 | 2070.89999 | 652.52000 | 1.61900 | 1.47610 | 1.20320 | 1.13340 | .60740 | .58650 | .54000 |
| 1.399 | 15.089 | .16060 | 2070.89999 | 651.78000 | 1.59910 | 1.45200 | 1.18830 | 1.12860 | .59580 | .50400 | .51600 |
| 1.399 | 17.254 | .17900 | 2070.20001 | 652.53000 | 1.57040 | 1.42990 | 1.16980 | 1.12490 | .58890 | .50400 | .50260 |
| 1.393 | 21.551 | .20580 | 2070.20001 | 656.96000 | 1.51010 | 1.38420 | 1.12930 | 1.10500 | .58560 | .49470 | .47080 |
| 1.384 | 25.777 | .21760 | 2070.89999 | 665.07000 | 1.43170 | 1.32480 | 1.09200 | 1.06320 | .56240 | .49470 | .44460 |
| | GRADIENT | | | | .00012 | -.00387 | .00385 | .00292 | -.00099 | .00002 | -.00199 |

TABLATED DATA - OAN61 (ARC 11-97-87-09*)

ARC 11-97-87-08* OAN161 ORIGINER

PARAMETRIC DATA

BETA = 2.000 ELEVOM = .000
AILRON = 2.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 157/ 0. R/V/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | Pf | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| .596 | .081 | 2.25050 | 2616.89999 | 2058.29999 | 1.05290 | 1.05290 | 1.05290 | 1.05290 | 1.05290 | 1.05290 | 1.05290 |
| .596 | 2.124 | 2.28130 | 2617.60001 | 2058.29999 | 1.03810 | 1.05550 | 1.03810 | 1.03810 | 1.03810 | 1.03810 | 1.03810 |
| .596 | 4.184 | 2.29490 | 2617.60001 | 2058.29999 | 1.03620 | 1.05560 | 1.03620 | 1.03620 | 1.03620 | 1.03620 | 1.03620 |
| .596 | 6.268 | 2.30590 | 2617.60001 | 2059.00000 | 1.03450 | 1.05300 | 1.03450 | 1.03450 | 1.03450 | 1.03450 | 1.03450 |
| .596 | 8.356 | 2.31260 | 2618.29999 | 2059.00000 | 1.03050 | 1.04890 | 1.03050 | 1.03050 | 1.03050 | 1.03050 | 1.03050 |
| .597 | 10.455 | 2.32710 | 2618.29999 | 2059.00000 | 1.02850 | 1.04420 | 1.02850 | 1.02850 | 1.02850 | 1.02850 | 1.02850 |
| .597 | 12.521 | 2.31880 | 2619.00000 | 2059.00000 | 1.01830 | 1.03580 | 1.01830 | 1.01830 | 1.01830 | 1.01830 | 1.01830 |
| .597 | 14.760 | 2.29970 | 2619.00000 | 2058.29999 | 1.00840 | 1.02480 | 1.00840 | 1.00840 | 1.00840 | 1.00840 | 1.00840 |
| .597 | 16.900 | 2.29780 | 2619.00000 | 2059.00000 | .99810 | 1.01170 | .99810 | .99810 | .99810 | .99810 | .99810 |
| .597 | 19.010 | 2.29000 | 2619.00000 | 2059.70001 | .98580 | .98990 | .98580 | .98580 | .98580 | .98580 | .98580 |
| .596 | 21.099 | 2.27910 | 2618.00000 | 2059.70001 | .97180 | .96990 | .97180 | .97180 | .97180 | .97180 | .97180 |
| .596 | 23.181 | 2.28970 | 2618.00000 | 2059.70001 | .95380 | .95330 | .95380 | .95380 | .95380 | .95380 | .95380 |
| .596 | 25.229 | 2.31070 | 2619.70001 | 2058.70001 | .94470 | .96600 | .94470 | .94470 | .94470 | .94470 | .94470 |
| .597 | 26.228 | 2.31370 | 2619.00000 | 2057.60001 | .00024 | .00075 | .00024 | .00024 | .00024 | .00024 | .00024 |
| .597 | GRADIENT | .01081 | .17037 | .00000 | | | | | | | |

RUN NO. 161/ 0. R/V/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | Pf | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| .900 | .058 | 2.20440 | 2125.29999 | 1256.66001 | 1.13040 | 1.16880 | 1.13040 | 1.13040 | 1.13040 | 1.13040 | 1.13040 |
| .900 | 2.147 | 2.30800 | 2126.10001 | 1255.89999 | 1.13390 | 1.17140 | 1.13390 | 1.13390 | 1.13390 | 1.13390 | 1.13390 |
| .900 | 4.257 | 2.31500 | 2126.10001 | 1256.66001 | 1.13360 | 1.16930 | 1.13360 | 1.13360 | 1.13360 | 1.13360 | 1.13360 |
| .899 | 6.371 | 2.32650 | 2126.10001 | 1257.30000 | 1.12910 | 1.16730 | 1.12910 | 1.12910 | 1.12910 | 1.12910 | 1.12910 |
| .900 | 8.500 | 2.32670 | 2126.10001 | 1257.30000 | 1.12290 | 1.15970 | 1.12290 | 1.12290 | 1.12290 | 1.12290 | 1.12290 |
| .900 | 10.633 | 2.32690 | 2126.10001 | 1256.60001 | 1.11540 | 1.15100 | 1.11540 | 1.11540 | 1.11540 | 1.11540 | 1.11540 |
| .899 | 12.793 | 2.31530 | 2126.10001 | 1258.00000 | 1.10050 | 1.13530 | 1.10050 | 1.10050 | 1.10050 | 1.10050 | 1.10050 |
| .901 | 14.961 | 2.34110 | 2126.79999 | 1255.89999 | 1.08240 | 1.11640 | 1.08240 | 1.08240 | 1.08240 | 1.08240 | 1.08240 |
| .899 | 17.132 | 2.34810 | 2126.10001 | 1258.00000 | 1.05980 | 1.09910 | 1.05980 | 1.05980 | 1.05980 | 1.05980 | 1.05980 |
| .900 | 19.275 | 2.33550 | 2126.79999 | 1258.00000 | 1.03380 | 1.07280 | 1.03380 | 1.03380 | 1.03380 | 1.03380 | 1.03380 |
| .900 | 21.391 | 2.31630 | 2127.50000 | 1256.60001 | 1.00610 | 1.04390 | 1.00610 | 1.00610 | 1.00610 | 1.00610 | 1.00610 |
| .900 | 23.443 | 2.31920 | 2127.50000 | 1258.00000 | .99320 | .99320 | .99320 | .99320 | .99320 | .99320 | .99320 |
| .900 | 25.503 | 2.33210 | 2127.50000 | 1257.30000 | .95960 | .95960 | .95960 | .95960 | .95960 | .95960 | .95960 |
| .900 | 26.516 | 2.32590 | 2126.79999 | 1257.30000 | .00752 | .00752 | .00752 | .00752 | .00752 | .00752 | .00752 |
| .900 | GRADIENT | | .19022 | .00000 | | | | | | | |

(AETR211) (02 AUG 76)

ARC 11-97-87-084 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT XMRP = 1076.6800 IN. XC
 LREF = 474.8000 IN. YMRP = 0000 IN. YC
 SREF = 936.6900 IN. ZMRP = 375.0800 IN. ZC
 SCALE = .0300

BETA = 2.008 ELEVON = .000
 ALLRON = 2.500 BOFLAP = -7.170

RUN NO. 167/ 0 RWL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.199 | .044 | 2.28870 | 1993.10001 | 822.62000 | 1.40150 | 1.45920 | 1.17850 | 1.14950 | .67750 | .65090 | .66890 |
| 1.200 | 4.270 | 2.29620 | 1983.10981 | 819.80000 | 1.40810 | 1.45640 | 1.20278 | 1.18230 | .68560 | .65290 | .68460 |
| 1.198 | 8.574 | 2.31460 | 1991.02000 | 823.30000 | 1.39560 | 1.43810 | 1.18950 | 1.16940 | .68050 | .64340 | .64340 |
| 1.197 | 10.736 | 2.32230 | 1991.70000 | 824.69000 | 1.38140 | 1.42170 | 1.14120 | 1.11820 | .66610 | .64700 | .63900 |
| 1.195 | 12.917 | 2.34050 | 1991.00000 | 826.08000 | 1.36660 | 1.40120 | 1.12020 | 1.11520 | .65300 | .63730 | .62070 |
| 1.192 | 15.090 | 2.34800 | 1991.00000 | 822.60000 | 1.35300 | 1.38650 | 1.10560 | 1.12370 | .64170 | .62120 | .59970 |
| 1.197 | 17.307 | 2.34940 | 1991.70000 | 824.69000 | 1.32460 | 1.35650 | 1.08520 | 1.11820 | .63930 | .59280 | .58130 |
| 1.200 | 21.592 | 2.32530 | 1994.50000 | 822.63000 | 1.26840 | 1.30290 | 1.03830 | 1.09968 | .63400 | .57570 | .56760 |
| GRADIENT | | .00035 | -1.18316 | -.66730 | .00156 | -.00066 | .04762 | -.00776 | .00189 | .00047 | -.00102 |

RUN NO. 174/ 0 RWL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|--------|---------|---------|
| 1.462 | .066 | 2.32070 | 2070.20001 | 648.84000 | 1.60230 | 1.64270 | 1.15180 | 1.17780 | .61360 | .58230 | .61080 |
| 1.401 | 4.277 | 2.31840 | 2070.88999 | 649.57000 | 1.60390 | 1.62770 | 1.17790 | 1.19130 | .61530 | .57970 | .60760 |
| 1.398 | 6.574 | 2.29500 | 2068.79999 | 651.82000 | 1.57970 | 1.59490 | 1.15940 | 1.18470 | .62220 | .57470 | .57140 |
| 1.397 | 10.709 | 2.24200 | 2068.50000 | 652.94000 | 1.56350 | 1.57310 | 1.15780 | 1.18250 | .60950 | .56970 | .56630 |
| 1.397 | 12.814 | 2.25640 | 2068.79999 | 653.30000 | 1.54640 | 1.55240 | 1.15020 | 1.18410 | .59720 | .60130 | .54340 |
| 1.400 | 14.957 | 2.29730 | 2069.50000 | 650.33000 | 1.53040 | 1.54100 | 1.13940 | 1.19810 | .60100 | .57860 | .53230 |
| 1.399 | 17.138 | 2.33230 | 2068.50000 | 651.07000 | 1.50050 | 1.51900 | 1.10990 | 1.18870 | .59090 | .59090 | .51750 |
| 1.397 | 21.449 | 2.31799 | 2070.88999 | 653.99000 | 1.43990 | 1.46360 | 1.06340 | 1.16430 | .58660 | .48800 | .49340 |
| GRADIENT | | -.00055 | .16619 | .17331 | .00038 | -.00356 | .00620 | -.00320 | .00040 | -.00157 | -.00076 |

(AETRE2) (02 AUG 78)

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
AILRON = 2.500 BDFLAP = -7.170

TABULATED DATA - CASE1 (ARC 11-97-87-08*)

ARC 11-97-87-08* 0A161 ORBITER

REFERENCE DATA

SEEF = 2690.0000 SQ.FT. XMRP = 1076.6600 IN. XQ.
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0680 IN. ZO
SCALE = .0300

RUN NO. 156# 0 RV/L = 4.2% GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .597 | .110 | 5.35980 | 2616.29999 | 2058.29999 | 1.01350 | 1.07460 | .96220 | .99210 | .95310 | .94300 | .96330 |
| .596 | 2.143 | 5.37790 | 2617.60000 | 2058.29999 | 1.01630 | 1.07710 | .96830 | .99820 | .96360 | .94320 | .95426 |
| .595 | 4.210 | 5.39340 | 2616.89999 | 2058.29999 | 1.01490 | 1.07850 | .97060 | 1.00060 | .96380 | .94350 | .95480 |
| .595 | 6.286 | 5.39590 | 2617.60001 | 2058.29999 | 1.01550 | 1.07830 | .97130 | 1.00300 | .96420 | .94380 | .95230 |
| .595 | 8.387 | 5.39440 | 2617.60001 | 2059.70001 | 1.01250 | 1.07490 | .96990 | 1.00500 | .96410 | .94290 | .96130 |
| .592 | 10.511 | 5.38890 | 2618.29999 | 2060.39999 | 1.00960 | 1.07120 | .96960 | 1.00470 | .96410 | .94290 | .96430 |
| .596 | 12.639 | 5.38840 | 2619.00000 | 2061.39999 | 1.00540 | 1.06420 | .96360 | 1.00570 | .96390 | .94390 | .95230 |
| .595 | 14.755 | 5.38100 | 2618.29999 | 2061.10001 | .99570 | 1.05800 | .96110 | 1.00350 | .96070 | .94350 | .95100 |
| .595 | 16.860 | 5.37850 | 2618.29999 | 2060.39999 | .98510 | 1.04920 | .95420 | .99770 | .94780 | .94740 | .94740 |
| .597 | 18.977 | 5.38290 | 2618.29999 | 2058.29999 | .97610 | 1.03970 | .94970 | .98530 | .94410 | .94300 | .94300 |
| .596 | 21.076 | 5.38930 | 2618.29999 | 2058.70001 | .96210 | 1.02740 | .94230 | .98100 | .94330 | .92190 | .93520 |
| .597 | 23.166 | 5.39610 | 2619.00000 | 2058.29999 | .94726 | 1.01320 | .93230 | .96310 | .93690 | .91780 | .92750 |
| .597 | 25.221 | 5.41450 | 2619.00000 | 2059.00000 | .93020 | .99940 | .92330 | .97680 | .93110 | .92080 | .92080 |
| .597 | 26.176 | 5.39380 | 2619.00000 | 2058.29999 | .92980 | .99270 | .91730 | .97230 | .91960 | .91488 | .90860 |
| | GRADIENT | .00575 | -.34142 | -.00004 | .00034 | .00095 | .00205 | .00207 | .00015 | .00015 | .00037 |

RUN NO. 165# 0 RV/L = 4.2% GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .899 | .069 | 5.38660 | 2125.29999 | 1257.30000 | 1.08050 | 1.20060 | .93940 | .99560 | .88360 | .86260 | .87500 |
| .900 | 2.160 | 5.40230 | 2127.50000 | 1257.30000 | 1.08180 | 1.22370 | .95200 | 1.01110 | .88440 | .86200 | .87640 |
| .900 | 4.271 | 5.41240 | 2126.79999 | 1257.30000 | 1.08390 | 1.22510 | .96280 | 1.02320 | .88560 | .86540 | .88120 |
| .901 | 6.389 | 5.41300 | 2126.79999 | 1255.20000 | 1.08400 | 1.22460 | .97320 | 1.03420 | .89080 | .86970 | .88140 |
| .901 | 8.518 | 5.41510 | 2126.79999 | 1255.89999 | 1.08440 | 1.22050 | .97760 | 1.04730 | .89090 | .86890 | .89440 |
| .899 | 10.659 | 5.40990 | 2127.50000 | 1255.70000 | 1.07510 | 1.21180 | .97710 | 1.05040 | .89100 | .86020 | .87780 |
| .901 | 12.795 | 5.41050 | 2126.79999 | 1255.89999 | 1.06770 | 1.20200 | .97710 | 1.05410 | .89500 | .85500 | .87380 |
| .901 | 14.945 | 5.43020 | 2128.20001 | 1256.60001 | 1.04340 | 1.18740 | .96210 | 1.05510 | .89840 | .83840 | .85950 |
| .899 | 17.076 | 5.45140 | 2128.20001 | 1250.20000 | 1.02400 | 1.16650 | .95040 | 1.04950 | .84820 | .83030 | .85130 |
| .901 | 19.234 | 5.45150 | 2128.20001 | 1259.00000 | 1.00590 | 1.15230 | .95640 | 1.04670 | .84110 | .82600 | .86330 |
| .899 | 21.337 | 5.46930 | 2126.79999 | 1259.00000 | .97990 | 1.12880 | .93560 | 1.03710 | .81820 | .79330 | .83500 |
| .890 | 23.433 | 5.45320 | 2126.79999 | 1257.30000 | .96700 | 1.10600 | .91960 | 1.02800 | .78140 | .76700 | .77690 |
| .901 | 25.479 | 5.45436 | 2126.79999 | 1256.60001 | .93660 | .98270 | .88270 | 1.01890 | .74640 | .74310 | .74640 |
| .901 | 26.493 | 5.46250 | 2124.60001 | 1255.20000 | .90700 | .90567 | .89010 | 1.01130 | .75440 | .71660 | .72420 |
| | GRADIENT | .00614 | .35584 | .00081 | .00081 | .00107 | .00557 | .00633 | .00143 | .00304 | .00148 |

ORIGINAL PAGE IS
OF POOR QUALITY

(AET7227) (02 AUG 76)

TABULATED DATA - OAI6L (ARC 11-97-87-084)

ARC 11-97-87-084 OAI6L ORBITER

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 5.000 ELEVON = .000
 AILRON = 2.500 BDFLAP = -7.170

PARAMETRIC DATA

RUN. NO. 1664 01 RVAL = 4.22 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.290 | .074 | 5.40040 | 1990.30000 | 820.51000 | 1.32720 | 1.55820 | 1.14320 | 1.21070 | .67910 | .64930 | .65840 |
| 1.198 | 4.297 | 5.42110 | 1985.00000 | 821.18000 | 1.32450 | 1.54480 | 1.17040 | 1.23640 | .68630 | .65050 | .66810 |
| 1.199 | 8.598 | 5.41080 | 1985.89999 | 824.73000 | 1.31480 | 1.53150 | 1.12980 | 1.22050 | .68410 | .62940 | .63710 |
| 1.198 | 10.767 | 5.39550 | 1990.30000 | 826.60000 | 1.30680 | 1.51720 | 1.10830 | 1.19460 | .68510 | .61850 | .63080 |
| 1.195 | 12.921 | 5.41080 | 1990.30000 | 826.08000 | 1.29310 | 1.49070 | 1.05770 | 1.17630 | .68590 | .61240 | .62430 |
| 1.197 | 15.083 | 5.42650 | 1993.80000 | 825.41000 | 1.26750 | 1.47650 | 1.03680 | 1.17540 | .68660 | .59380 | .61660 |
| 1.197 | 17.241 | 5.45790 | 1990.30000 | 823.99000 | 1.24040 | 1.45450 | 1.01730 | 1.17710 | .68600 | .57320 | .59380 |
| 1.194 | 21.591 | 5.46620 | 1995.20000 | 828.90000 | 1.17800 | 1.39780 | .96480 | 1.16080 | .62520 | .55380 | .59650 |
| | GRADIENT | .03496 | -1.01820 | .19865 | -.00062 | -.03317 | .00644 | .00609 | .00147 | .00128 | .00230 |

RUN. NO. 175 0 RVAL = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|----------|--------|
| 1.393 | .085 | 5.43150 | 2068.10001 | 654.10000 | 1.59010 | 1.78580 | 1.09360 | 1.25530 | .60310 | .56830 | .57650 |
| 1.393 | 4.292 | 5.42220 | 2068.10001 | 650.36000 | 1.51360 | 1.75310 | 1.10680 | 1.26380 | .60870 | .56690 | .60020 |
| 1.398 | 8.555 | 5.38160 | 2068.10001 | 651.83000 | 1.48520 | 1.72770 | 1.09190 | 1.26390 | .60270 | .55510 | .57120 |
| 1.398 | 10.684 | 5.38860 | 2068.79999 | 651.62000 | 1.46500 | 1.70400 | 1.09850 | 1.26450 | .60220 | .55220 | .59900 |
| 1.397 | 12.806 | 5.40500 | 2068.79999 | 653.30000 | 1.44580 | 1.68130 | 1.08190 | 1.26040 | .59810 | .52250 | .53900 |
| 1.397 | 14.957 | 5.41740 | 2068.79999 | 662.56000 | 1.42120 | 1.67090 | 1.09658 | 1.27160 | .58930 | .50240 | .52320 |
| 1.396 | 17.123 | 5.42500 | 2068.10001 | 653.31000 | 1.39890 | 1.64880 | 1.09370 | 1.27760 | .58780 | .49060 | .51460 |
| 1.397 | 21.438 | 5.44700 | 2070.89999 | 653.26000 | 1.33270 | 1.59890 | .98360 | 1.26350 | .58920 | .57230 | .49770 |
| | GRADIENT | -.00221 | .00000 | -.17580 | .00319 | -.00302 | .00314 | .00262 | .08133 | -.001033 | .00516 |

(AE7R23) (02 AUG 76)

TABLATED DATA - DATA1 (ARC 11-97-87-09*)

ARC 11-97-87-09* OAH61 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
ALPION = 5.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0400 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | P | RML | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|-----------|-----------|------|-------------------|---------|---------|---------|--------|--------|--------|--------|
| .597 | .144 | -4.92550 | 2631.0000 | 2668.2000 | 4.20 | -5.00 | 1.08500 | 1.00260 | .99980 | .96720 | .95950 | .94610 | .93680 |
| .595 | 4.207 | -4.92540 | 2629.6000 | 2668.2000 | 4.20 | -5.00 | 1.08800 | 1.00410 | 1.00970 | .96350 | .95500 | .94730 | .93860 |
| .593 | 8.370 | -4.91020 | 2629.6000 | 2669.6000 | 4.20 | -5.00 | 1.08620 | 1.00250 | 1.01090 | .96180 | .95330 | .94700 | .93840 |
| .596 | 10.478 | -4.89320 | 2630.2999 | 2668.8999 | 4.20 | -5.00 | 1.08240 | 1.00750 | 1.01140 | .95400 | .94550 | .94980 | .94120 |
| .598 | 12.589 | -4.87710 | 2630.2999 | 2668.2000 | 4.20 | -5.00 | 1.07750 | .99150 | 1.00960 | .95150 | .94300 | .94720 | .93860 |
| .595 | 14.689 | -4.86390 | 2630.2999 | 2670.2999 | 4.20 | -5.00 | 1.06940 | .98430 | 1.00830 | .94500 | .93650 | .94070 | .93210 |
| .593 | 16.786 | -4.85330 | 2630.2999 | 2659.6000 | 4.20 | -5.00 | 1.06400 | .97560 | 1.00430 | .94780 | .93930 | .94350 | .93490 |
| .594 | 21.028 | -4.83980 | 2631.0000 | 2672.3999 | 4.20 | -5.00 | 1.03620 | .95060 | .98220 | .94090 | .93240 | .93660 | .92800 |
| GRADIENT | | .00047 | .34452 | .00000 | | | .00074 | .00037 | .00241 | .00155 | .00012 | .00030 | .00044 |

| MACH | ALPHA | BETA | PT | P | RML | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|-----------|-----------|------|-------------------|---------|---------|---------|--------|--------|--------|--------|
| .900 | .112 | -4.94600 | 2407.0000 | 1245.3000 | 4.21 | -5.00 | 1.24540 | 1.05070 | 1.02300 | .90910 | .89000 | .85750 | .83330 |
| .898 | 4.266 | -4.94410 | 2107.0000 | 1245.3000 | 4.21 | -5.00 | 1.25310 | 1.05660 | 1.05390 | .93690 | .89140 | .87340 | .82170 |
| .899 | 6.377 | -4.93360 | 2104.7999 | 1246.0000 | 4.21 | -5.00 | 1.25730 | 1.05310 | 1.05210 | .94640 | .89290 | .87340 | .82170 |
| .901 | 8.491 | -4.92620 | 2107.7000 | 1245.3000 | 4.21 | -5.00 | 1.24880 | 1.04730 | 1.06220 | .94420 | .89140 | .87340 | .82170 |
| .902 | 10.619 | -4.93140 | 2104.7999 | 1244.6000 | 4.21 | -5.00 | 1.24140 | 1.04110 | 1.06690 | .93580 | .88380 | .86570 | .81400 |
| .899 | 12.739 | -4.91670 | 2106.2000 | 1246.0000 | 4.21 | -5.00 | 1.23700 | 1.03740 | 1.06550 | .93470 | .88310 | .86570 | .81400 |
| .900 | 14.879 | -4.92380 | 2107.0000 | 1246.0000 | 4.21 | -5.00 | 1.21520 | 1.01170 | 1.07700 | .95120 | .86320 | .84750 | .79580 |
| .899 | 17.005 | -4.92660 | 2105.5000 | 1246.0000 | 4.21 | -5.00 | 1.20140 | 1.05710 | 1.06710 | .94590 | .85260 | .84040 | .78870 |
| .900 | 21.308 | -4.95570 | 2107.0000 | 1246.0000 | 4.21 | -5.00 | 1.19820 | 1.04300 | 1.04800 | .92950 | .82000 | .79540 | .74370 |
| GRADIENT | | .00155 | .00001 | .00000 | | | .00142 | .00069 | .00744 | .00669 | .00258 | .00142 | .00202 |

| MACH | ALPHA | BETA | PT | P | RML | GRADIENT INTERVAL | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|-----------|-----------|------|-------------------|---------|---------|---------|--------|--------|--------|--------|
| .580 | .121 | -4.95340 | 2064.5000 | 1116.3999 | 4.26 | -5.00 | 1.33210 | 1.10220 | 1.07580 | .93240 | .80160 | .77550 | .61090 |
| .581 | 4.290 | -4.95330 | 2064.5000 | 1116.3999 | 4.26 | -5.00 | 1.34000 | 1.10790 | 1.10790 | .93400 | .80280 | .78090 | .61330 |
| .579 | 8.536 | -4.92330 | 2064.5000 | 1116.5000 | 4.26 | -5.00 | 1.32900 | 1.09580 | 1.11650 | .91850 | .79150 | .76560 | .61210 |
| .580 | 10.761 | -4.91890 | 2063.7999 | 1116.3999 | 4.26 | -5.00 | 1.32560 | 1.08890 | 1.12000 | .93130 | .79210 | .76560 | .61210 |
| .578 | 12.849 | -4.91330 | 2065.2000 | 1119.2000 | 4.26 | -5.00 | 1.30830 | 1.07410 | 1.11950 | .91900 | .78550 | .76770 | .61210 |
| .573 | 15.002 | -4.92750 | 2065.8999 | 1119.8999 | 4.26 | -5.00 | 1.29380 | 1.06110 | 1.12500 | .91570 | .78100 | .75340 | .61210 |
| .577 | 17.150 | -4.93310 | 2065.2000 | 1119.8999 | 4.26 | -5.00 | 1.27700 | 1.04310 | 1.11980 | .90900 | .75400 | .73930 | .61210 |
| .580 | 21.473 | -4.94270 | 2067.3999 | 1117.1000 | 4.26 | -5.00 | 1.27100 | 1.03170 | 1.09780 | .90570 | .72800 | .71240 | .61210 |
| GRADIENT | | .00567 | .58374 | .02398 | | | .00137 | .00189 | .00784 | .00934 | .00629 | .00558 | .00132 |

(AETR23) (02 AUG 76)

TABULATED DATA - 04161 (ARC 11-97-87-094)

ARC 11-97-87-094 04161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
ALLRON = 5.000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 190/ 0 RV/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|--------|
| 1.103 | .111 | -4.94150 | 2019.30000 | 942.63000 | 1.49610 | 1.21700 | 1.20670 | 1.07440 | .71590 | .68740 | .69780 |
| 1.102 | 4.300 | -4.96070 | 2019.50000 | 943.32000 | 1.24050 | 1.24250 | 1.23420 | 1.04990 | .71440 | .68860 | .70030 |
| 1.102 | 8.588 | -4.93290 | 2020.70000 | 944.04000 | 1.48820 | 1.19450 | 1.24000 | 1.06640 | .70300 | .67750 | .67080 |
| 1.099 | 10.723 | -4.91710 | .020.00000 | 946.81000 | 1.47860 | 1.17940 | 1.23800 | 1.07550 | .69430 | .67660 | .65970 |
| 1.098 | 12.874 | -4.90350 | 2018.50000 | 946.11000 | 1.46020 | 1.16250 | 1.23000 | 1.07670 | .68560 | .66560 | .65360 |
| 1.102 | 15.052 | -4.93140 | 2018.50000 | 942.62000 | 1.44280 | 1.14050 | 1.24160 | 1.06730 | .68720 | .66280 | .65690 |
| 1.100 | 17.217 | -4.94200 | 2019.30000 | 945.42000 | 1.41950 | 1.11020 | 1.22330 | 1.07000 | .68380 | .64030 | .63940 |
| 1.100 | 21.538 | -4.95300 | 2015.70000 | 943.99000 | 1.37180 | 1.04640 | 1.17970 | 1.03640 | .66350 | .64470 | .64420 |
| 1.100 | GRADIENT | -.00220 | -.19089 | .15472 | .00174 | -.00660 | .00556 | .00847 | -.00036 | .00029 | .00053 |

RUN NO. 181/ 0 RV/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.198 | .112 | -4.98250 | 2017.10000 | 833.92000 | 1.80660 | 1.26310 | 1.28520 | 1.02730 | .87950 | .84900 | .87750 |
| 1.199 | 4.283 | -4.95110 | 2017.80000 | 833.23000 | 1.60550 | 1.24980 | 1.30540 | 1.09160 | .88230 | .85500 | .88010 |
| 1.201 | 8.561 | -4.92890 | 2017.80000 | 831.15000 | 1.59430 | 1.23270 | 1.30850 | 1.05370 | .87170 | .86270 | .82440 |
| 1.195 | 10.718 | -4.94000 | 2019.30000 | 836.72000 | 1.58150 | 1.21170 | 1.28150 | 1.01870 | .86840 | .84700 | .80340 |
| 1.195 | 12.875 | -4.92690 | 2018.50000 | 837.40000 | 1.56290 | 1.19530 | 1.28220 | 1.00050 | .85440 | .81120 | .89840 |
| 1.195 | 15.052 | -4.94550 | 2019.30000 | 837.42000 | 1.54670 | 1.17130 | 1.25290 | .98640 | .84740 | .81400 | .86760 |
| 1.195 | 17.214 | -4.94650 | 2019.30000 | 838.11000 | 1.52380 | 1.14480 | 1.23600 | .96800 | .83090 | .80990 | .86710 |
| 1.199 | 21.537 | -4.95320 | 2021.39999 | 834.65000 | 1.47730 | 1.09610 | 1.19470 | .94690 | .83620 | .83180 | .85580 |
| 1.199 | GRADIENT | -.00513 | -.16783 | -.16543 | -.00026 | -.00319 | .00477 | .00822 | .00072 | .00168 | .00082 |

RUN NO. 180/ 0 RV/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|--------|---------|--------|
| 1.400 | .071 | -4.95610 | 2068.79999 | 649.61000 | 1.85970 | 1.40570 | 1.33910 | 1.02810 | .96650 | .98430 | .97320 |
| 1.400 | 4.232 | -4.99930 | 2067.79999 | 649.64000 | 1.85700 | 1.38860 | 1.35170 | 1.03790 | .96290 | .98200 | .97930 |
| 1.395 | 8.495 | -4.93200 | 2068.10000 | 653.31000 | 1.83660 | 1.34880 | 1.33660 | 1.03230 | .96950 | .98050 | .94150 |
| 1.397 | 10.642 | -4.95280 | 2068.79999 | 652.56000 | 1.82750 | 1.32640 | 1.33070 | 1.03460 | .96170 | .98170 | .93550 |
| 1.397 | 12.792 | -4.95330 | 2068.10000 | 652.57000 | 1.80770 | 1.30470 | 1.32590 | 1.02670 | .95980 | .98140 | .91390 |
| 1.397 | 14.958 | -4.94020 | 2068.79999 | 652.56000 | 1.78950 | 1.28360 | 1.31920 | 1.01510 | .96740 | .98660 | .94510 |
| 1.399 | 17.119 | -4.97920 | 2068.79999 | 651.08000 | 1.76820 | 1.26490 | 1.32300 | 1.00540 | .96440 | .98430 | .94760 |
| 1.400 | 21.459 | -4.98100 | 2068.79999 | 649.61000 | 1.71530 | 1.21720 | 1.30731 | .97750 | .98100 | .98470 | .94460 |
| 1.400 | GRADIENT | -.00754 | -.33648 | .00721 | -.00065 | -.00411 | .00303 | .00236 | .00154 | -.00050 | .00147 |

TABLATED DATA - 0A161 (ARC 11-97-37-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2580.0000 56. FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0330

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ALLRON = 5.000 BBFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | RN/L | 4.22 | GRADIENT INTERVAL = -5.00 | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|------|------|---------------------------|------|---------|---------|--------|--------|---------|--------|--------|
| .596 | .083 | -1.83260 | 2629.89999 | 2068.20001 | | | | | 1.06230 | 1.02370 | .98890 | .95700 | .95680 | .94820 | .95700 |
| .596 | 4.180 | -1.84570 | 2629.60001 | 2067.50000 | | | | | 1.06790 | 1.02530 | .98580 | .97390 | .95630 | .94850 | .96020 |
| .595 | 8.344 | -1.83600 | 2629.60001 | 2068.89999 | | | | | 1.06510 | 1.02300 | .98740 | .97310 | .95560 | .94870 | .96090 |
| .595 | 10.455 | -1.83420 | 2629.60001 | 2068.89999 | | | | | 1.06080 | 1.01980 | .98690 | .97260 | .95530 | .94910 | .95950 |
| .595 | 12.574 | -1.82650 | 2629.60001 | 2068.89999 | | | | | 1.05510 | 1.01400 | .98570 | .97180 | .95500 | .94920 | .95880 |
| .597 | 14.668 | -1.79550 | 2629.60001 | 2068.79999 | | | | | 1.04830 | 1.00840 | .98440 | .97180 | .95350 | .94900 | .95500 |
| .595 | 16.805 | -1.85850 | 2629.60001 | 2068.89999 | | | | | 1.03930 | .99540 | .98330 | .96950 | .94950 | .94950 | .96040 |
| .594 | 21.056 | -1.85330 | 2629.60001 | 2071.00000 | | | | | 1.01360 | .97250 | .97610 | .96200 | .93750 | .93140 | .93310 |
| | GRADIENT | -.00345 | -.17116 | -.17114 | | | | | .00137 | .00054 | .00193 | .00166 | -.00012 | .00310 | .00078 |

| MACH | ALPHA | BETA | PT | P | RN/L | 4.22 | GRADIENT INTERVAL = -5.00 | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|------|------|---------------------------|------|---------|---------|---------|--------|--------|--------|--------|
| .902 | .083 | -1.87890 | 2108.39999 | 1243.88999 | | | | | 1.19510 | 1.10000 | .95530 | .93040 | .88770 | .86850 | .86570 |
| .901 | 4.240 | -1.84550 | 2109.10001 | 1245.00000 | | | | | 1.20300 | 1.10570 | 1.02261 | .95280 | .89110 | .87480 | .89210 |
| .900 | 6.360 | -1.84440 | 2109.79999 | 1246.70000 | | | | | 1.20720 | 1.10090 | 1.03061 | .96851 | .89180 | .87610 | .89370 |
| .900 | 8.467 | -1.84850 | 2109.10001 | 1246.70000 | | | | | 1.19810 | 1.10050 | 1.03500 | .97350 | .89210 | .87800 | .89510 |
| .899 | 10.507 | -1.84200 | 2108.39999 | 1247.39999 | | | | | 1.19300 | 1.09500 | 1.03680 | .97360 | .88340 | .86900 | .89050 |
| .900 | 12.737 | -1.81980 | 2109.10001 | 1246.70000 | | | | | 1.18250 | 1.07850 | 1.04060 | .98270 | .87180 | .85600 | .88320 |
| .902 | 14.855 | -1.82930 | 2109.79999 | 1245.30000 | | | | | 1.17090 | 1.06750 | 1.04150 | .98080 | .86930 | .84930 | .86270 |
| .899 | 17.033 | -1.88660 | 2107.70001 | 1248.10001 | | | | | 1.14980 | 1.04380 | 1.03350 | .97440 | .84870 | .83630 | .84250 |
| .902 | 21.347 | -1.87390 | 2110.50000 | 1244.60001 | | | | | 1.10910 | .98640 | 1.01250 | .95770 | .80390 | .78950 | .81000 |
| | GRADIENT | .00893 | .15337 | .15337 | | | | | .00137 | .00137 | .00557 | .00693 | .00082 | .00142 | .00130 |

| MACH | ALPHA | BETA | PT | P | RN/L | 4.26 | GRADIENT INTERVAL = -5.00 | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|------|------|---------------------------|------|---------|---------|---------|---------|--------|--------|---------|
| .983 | .065 | -1.84620 | 2066.60001 | 1117.10001 | | | | | 1.27280 | 1.16190 | 1.04690 | .96290 | .79720 | .77160 | .81120 |
| .980 | 4.264 | -1.85340 | 2065.20001 | 1117.10001 | | | | | 1.27900 | 1.16490 | 1.05370 | .99700 | .80410 | .78360 | .80570 |
| .979 | 8.541 | -1.84270 | 2067.39999 | 1118.50000 | | | | | 1.27400 | 1.15480 | 1.08540 | 1.00860 | .79100 | .76540 | .78700 |
| .978 | 10.695 | -1.82200 | 2065.20001 | 1118.50000 | | | | | 1.26360 | 1.14220 | 1.08490 | 1.01140 | .78200 | .75590 | .79710 |
| .979 | 12.642 | -1.81610 | 2066.60001 | 1118.50000 | | | | | 1.25390 | 1.13210 | 1.09130 | 1.02170 | .76990 | .74140 | .76810 |
| .979 | 14.977 | -1.84850 | 2065.89999 | 1118.50000 | | | | | 1.23790 | 1.11420 | 1.08950 | 1.01940 | .75750 | .73440 | .75970 |
| .978 | 17.179 | -1.85700 | 2066.89999 | 1119.20000 | | | | | 1.21950 | 1.09230 | 1.08180 | 1.01220 | .74840 | .72400 | .75670 |
| .980 | 21.506 | -1.87680 | 2068.10001 | 1117.80000 | | | | | 1.17300 | 1.04900 | 1.05730 | .99050 | .72940 | .70610 | .69360 |
| | GRADIENT | -.00314 | -.33342 | -.33342 | | | | | .00152 | .00071 | .00633 | .00812 | .00164 | .00266 | -.00131 |

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = 1076.6800 IN. XG
 LREF = 474.8000 IN. YMRP = .0000 IN. YG
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZG
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .008
 AIRLON = 5.000 BDFLAP = -7.170

RUN NO. 189 0 RW/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|-----------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.102 | .086 | -1.8789 | 2017.8000 | 942.62000 | 1.42860 | 1.28850 | 1.16880 | 1.04950 | .72880 | .70380 | .71960 |
| 1.101 | 4.255 | -1.8621 | 2019.5000 | 944.02000 | 1.43170 | 1.28700 | 1.19270 | 1.08500 | .72660 | .69780 | .71270 |
| 1.101 | 8.559 | -1.8311 | 2020.0000 | 945.42000 | 1.41720 | 1.26700 | 1.20100 | 1.10250 | .68120 | .65990 | .68710 |
| 1.100 | 12.721 | -1.8234 | 2017.8000 | 944.70000 | 1.40690 | 1.25750 | 1.20050 | 1.10720 | .67680 | .64600 | .67340 |
| 1.101 | 15.032 | -1.8079 | 2019.5000 | 944.72000 | 1.39080 | 1.23730 | 1.20810 | 1.11640 | .67460 | .64470 | .65470 |
| 1.101 | 17.257 | -1.8481 | 2018.5000 | 944.71000 | 1.37570 | 1.21650 | 1.19670 | 1.10400 | .68180 | .65380 | .62900 |
| 1.100 | 21.581 | -1.8996 | 2019.5000 | 945.42000 | 1.35110 | 1.18680 | 1.18100 | 1.09000 | .68310 | .65760 | .60210 |
| 1.102 | GRADIENT | .00402 | .16750 | .33501 | .00074 | -.00036 | .00591 | .00849 | -.00144 | -.00165 | -.00165 |

RUN NO. 182 0 RW/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|-----------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.199 | .050 | -1.8672 | 2017.8000 | 833.23000 | 1.52070 | 1.34290 | 1.23590 | 1.09030 | .68420 | .65580 | .67870 |
| 1.196 | 4.258 | -1.8591 | 2016.3999 | 836.00000 | 1.51620 | 1.33130 | 1.25230 | 1.11630 | .68170 | .65300 | .66420 |
| 1.197 | 8.549 | -1.8443 | 2018.5000 | 836.02000 | 1.50630 | 1.31390 | 1.25050 | 1.09600 | .66920 | .63190 | .63750 |
| 1.196 | 10.719 | -1.8190 | 2017.1000 | 836.71000 | 1.49460 | 1.30270 | 1.23250 | 1.05480 | .66320 | .62770 | .62730 |
| 1.195 | 12.869 | -1.8141 | 2017.1000 | 837.40000 | 1.47920 | 1.28130 | 1.20460 | 1.04990 | .65590 | .64700 | .61190 |
| 1.195 | 15.026 | -1.8578 | 2017.1000 | 836.01000 | 1.46280 | 1.26100 | 1.18830 | 1.04360 | .64550 | .63610 | .60540 |
| 1.194 | 17.239 | -1.9025 | 2017.1000 | 838.80000 | 1.43710 | 1.22510 | 1.16560 | 1.02200 | .63240 | .60880 | .57150 |
| 1.198 | 21.573 | -1.8780 | 2020.7000 | 835.34000 | 1.38920 | 1.17790 | 1.12950 | 1.05610 | .62920 | .60430 | .53050 |
| 1.198 | GRADIENT | .00193 | -.33273 | .65835 | -.00107 | -.00276 | .00390 | .00618 | -.00058 | -.00067 | -.00345 |

RUN NO. 179 0 RW/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|-----------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.399 | .048 | -1.8775 | 2067.3999 | 650.37000 | 1.73870 | 1.49440 | 1.25000 | 1.08680 | .61260 | .59380 | .58970 |
| 1.399 | 4.207 | -1.9142 | 2068.1000 | 650.35000 | 1.74060 | 1.47980 | 1.26791 | 1.09900 | .61670 | .59540 | .57650 |
| 1.397 | 8.485 | -1.8482 | 2068.1000 | 652.57000 | 1.72130 | 1.44310 | 1.25473 | 1.08920 | .60770 | .57940 | .58690 |
| 1.397 | 10.647 | -1.8300 | 2069.1000 | 649.62000 | 1.71350 | 1.42840 | 1.25181 | 1.10000 | .60830 | .58160 | .54460 |
| 1.398 | 12.788 | -1.8357 | 2067.3999 | 651.11000 | 1.68480 | 1.40730 | 1.25253 | 1.09250 | .59990 | .62860 | .52370 |
| 1.399 | 14.933 | -1.8582 | 2068.1000 | 650.36000 | 1.67510 | 1.38250 | 1.24273 | 1.08390 | .60130 | .62100 | .51430 |
| 1.399 | 17.147 | -1.8952 | 2067.3999 | 650.37000 | 1.64950 | 1.36470 | 1.22990 | 1.07980 | .63840 | .63840 | .50410 |
| 1.403 | 21.489 | -1.8899 | 2068.7000 | 647.39000 | 1.59790 | 1.32270 | 1.20850 | 1.06020 | .57710 | .55710 | .47660 |
| 1.403 | GRADIENT | -.006 | -.16827 | -.00240 | .00046 | -.00354 | .00431 | .00593 | -.00099 | -.00038 | -.00317 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
A L R O M = 5.000 BDELAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 2834 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|---------|--------|--------|--------|--------|---------|
| .587 | .081 | .21610 | 2628.89999 | 2066.79999 | 1.04810 | 1.03850 | .98260 | .97440 | .95600 | .94770 | .93830 |
| .596 | 4.182 | .21530 | 2629.89999 | 2068.20001 | 1.05266 | 1.04110 | .98850 | .98120 | .95580 | .94790 | .93760 |
| .594 | 6.256 | .22760 | 2628.89999 | 2070.29999 | 1.05290 | 1.03940 | .98990 | .98300 | .95610 | .94840 | .93760 |
| .593 | 8.349 | .23020 | 2629.60001 | 2068.89999 | 1.05090 | 1.03870 | .98920 | .98130 | .95680 | .94940 | .93810 |
| .596 | 10.443 | .22440 | 2629.60001 | 2068.20001 | 1.04570 | 1.03310 | .98750 | .98060 | .95770 | .94960 | .93910 |
| .595 | 12.541 | .22300 | 2629.60001 | 2069.60001 | 1.04070 | 1.02770 | .98870 | .97950 | .95480 | .94930 | .93560 |
| .596 | 14.659 | .23520 | 2629.60001 | 2069.20001 | 1.03360 | 1.02110 | .98470 | .97950 | .95400 | .94790 | .93250 |
| .597 | 16.776 | .22710 | 2629.60001 | 2066.10001 | 1.02530 | 1.01380 | .98200 | .97830 | .95350 | .94250 | .93240 |
| .597 | 21.025 | .21890 | 2631.00002 | 2067.50000 | .99980 | .99860 | .96600 | .96480 | .94090 | .93240 | .91830 |
| .595 | 25.199 | .21090 | 2631.00000 | 2069.60001 | .96990 | .94770 | .94640 | .92550 | .92550 | .90005 | .91830 |
| GRADIENT | | -.00020 | .00000 | .34132 | .00110 | .00063 | .00144 | .00166 | .00005 | .00005 | -.00017 |

RUN NO. 1987 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .901 | .045 | .19500 | 2107.70001 | 1245.30000 | 1.15950 | 1.13420 | .97980 | .94880 | .89800 | .87130 | .86840 |
| .900 | 4.243 | .21830 | 2107.70001 | 1246.70000 | 1.16780 | 1.13880 | 1.00290 | .97820 | .89320 | .87770 | .89240 |
| .899 | 6.350 | .22160 | 2109.10001 | 1248.10001 | 1.17310 | 1.13690 | 1.01190 | .98500 | .89250 | .87980 | .89160 |
| .900 | 8.474 | .22540 | 2109.79999 | 1247.39999 | 1.18460 | 1.13180 | 1.01490 | .98700 | .89780 | .87520 | .88960 |
| .900 | 10.602 | .22600 | 2108.39999 | 1246.00000 | 1.15620 | 1.12500 | 1.01580 | .99280 | .88350 | .86800 | .88970 |
| .899 | 12.722 | .22450 | 2107.70001 | 1247.39999 | 1.14610 | 1.11330 | 1.02320 | .99460 | .86850 | .85120 | .87420 |
| .897 | 14.864 | .23548 | 2109.79999 | 1251.00000 | 1.12980 | 1.09890 | 1.01680 | .98790 | .85980 | .84070 | .86360 |
| .904 | 17.018 | .23870 | 2109.79999 | 1242.50000 | 1.11840 | 1.08760 | 1.01650 | .98000 | .85000 | .83340 | .85300 |
| .902 | 21.282 | .22570 | 2109.10001 | 1244.60001 | 1.07310 | 1.03970 | .99150 | .95350 | .81380 | .79560 | .81450 |
| .902 | 25.460 | .20750 | 2109.10001 | 1243.89999 | 1.01980 | .98400 | .95660 | .93360 | .76340 | .73210 | .73460 |
| GRADIENT | | .00555 | -.00001 | .33345 | .00198 | .00110 | .00550 | .00700 | .00124 | .00152 | .00095 |

RUN NO. 1937 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|---------|---------|--------|--------|--------|---------|
| .972 | .055 | .22230 | 2065.89999 | 1119.20000 | 1.23080 | 1.19880 | 1.02480 | .98210 | .79980 | .77720 | .80520 |
| .980 | 4.275 | .21180 | 2064.50000 | 1116.39999 | 1.24100 | 1.20470 | 1.05340 | .98100 | .80980 | .78640 | .80460 |
| .980 | 8.551 | .23580 | 2066.60001 | 1117.80000 | 1.23460 | 1.18660 | 1.06510 | .93060 | .80980 | .78460 | .78400 |
| .977 | 10.707 | .22630 | 2064.50000 | 1119.89999 | 1.22210 | 1.18450 | 1.06280 | .93290 | .78660 | .76230 | .78060 |
| .979 | 12.850 | .21530 | 2065.89999 | 1119.20000 | 1.21130 | 1.17280 | 1.07260 | .93840 | .78700 | .75560 | .78090 |
| .973 | 15.001 | .23430 | 2065.89999 | 1119.20000 | 1.19520 | 1.15670 | 1.06470 | .94270 | .73890 | .70960 | .75960 |
| .979 | 17.157 | .22750 | 2065.20001 | 1116.50000 | 1.17600 | 1.13730 | 1.05650 | .94390 | .74390 | .72060 | .74210 |
| .981 | 21.454 | .20510 | 2068.79999 | 1117.00000 | 1.12990 | 1.08700 | 1.03070 | .91670 | .72960 | .71840 | .70040 |
| GRADIENT | | -.00249 | -.33170 | -.66343 | .00242 | .00140 | .00673 | .00861 | .00165 | .00258 | -.00014 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 ATLRON = 5.000 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.100 | .050 | .20720 | 2016.39999 | 944.69000 | 1.37720 | 1.33580 | 1.13680 | 1.07920 | .73110 | .70910 | .72060 |
| 1.102 | 4.282 | .21750 | 2017.80000 | 943.31000 | 1.38510 | 1.33870 | 1.16810 | 1.11650 | .72860 | .70530 | .71450 |
| 1.101 | 8.569 | .23970 | 2020.00000 | 945.42000 | 1.36830 | 1.32050 | 1.17930 | 1.13230 | .71890 | .69180 | .70120 |
| 1.101 | 10.728 | .23890 | 2017.10001 | 944.00000 | 1.36300 | 1.31090 | 1.18330 | 1.13670 | .71540 | .68400 | .69450 |
| 1.101 | 12.881 | .23050 | 2018.50000 | 944.71000 | 1.34600 | 1.29350 | 1.18330 | 1.13950 | .70690 | .65730 | .67920 |
| 1.101 | 15.058 | .23400 | 2019.50000 | 945.41000 | 1.32430 | 1.26700 | 1.16700 | 1.13410 | .69240 | .69350 | .64930 |
| 1.099 | 17.237 | .22640 | 2017.60000 | 946.10000 | 1.30200 | 1.24190 | 1.12800 | 1.12120 | .68830 | .71980 | .62870 |
| 1.101 | 21.529 | .21940 | 2017.10001 | 944.00000 | 1.24730 | 1.18710 | 1.09760 | 1.03170 | .67040 | .61110 | .59190 |
| | GRADIENT | .00243 | .33077 | -.32604 | .00210 | .00669 | .00690 | .00874 | -.00059 | -.00090 | -.00144 |

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.195 | .044 | .17740 | 2017.10001 | 836.01000 | 1.45560 | 1.40010 | 1.20040 | 1.11650 | .68700 | .66130 | .67610 |
| 1.199 | 4.267 | .21430 | 2017.10001 | 833.22000 | 1.46320 | 1.39290 | 1.22560 | 1.14450 | .68940 | .65450 | .65940 |
| 1.197 | 6.408 | .21910 | 2015.70000 | 834.61000 | 1.46610 | 1.38230 | 1.23040 | 1.14600 | .68110 | .64310 | .65470 |
| 1.194 | 8.563 | .23870 | 2019.30000 | 839.51000 | 1.44180 | 1.36350 | 1.21300 | 1.12180 | .63390 | .64370 | .63090 |
| 1.195 | 10.737 | .23440 | 2019.30000 | 836.72000 | 1.43700 | 1.35770 | 1.19300 | 1.09050 | .66930 | .62730 | .63090 |
| 1.199 | 12.891 | .22650 | 2017.10001 | 833.22000 | 1.42560 | 1.34430 | 1.16850 | 1.08700 | .66590 | .63910 | .62090 |
| 1.195 | 15.052 | .23700 | 2017.80000 | 837.41000 | 1.40090 | 1.31950 | 1.14580 | 1.07510 | .64410 | .64260 | .59240 |
| 1.195 | 17.217 | .22760 | 2016.39999 | 837.40000 | 1.37790 | 1.29590 | 1.12730 | 1.07100 | .63720 | .63850 | .57460 |
| 1.199 | 21.523 | .21510 | 2020.70000 | 834.64000 | 1.32390 | 1.24410 | 1.08270 | 1.05210 | .63120 | .59080 | .55560 |
| 1.200 | 25.749 | .22070 | 2016.39999 | 831.83000 | 1.25920 | 1.19020 | 1.03060 | 1.03290 | .60750 | .51600 | .52710 |
| | GRADIENT | .00874 | .00000 | -.66073 | -.00171 | -.00180 | -.00597 | -.00663 | -.00038 | -.00161 | -.00182 |

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|--------|---------|---------|
| 1.400 | .011 | .16370 | 2068.79999 | 650.34000 | 1.65950 | 1.56830 | 1.20250 | 1.13020 | .61740 | .59650 | .61790 |
| 1.400 | 2.106 | .21690 | 2069.10001 | 649.62000 | 1.66910 | 1.56180 | 1.21220 | 1.13110 | .62210 | .59250 | .61220 |
| 1.399 | 4.215 | .19430 | 2066.60001 | 650.39000 | 1.66700 | 1.55070 | 1.21950 | 1.13940 | .62780 | .59000 | .60480 |
| 1.395 | 6.344 | .23950 | 2067.39999 | 653.32000 | 1.66940 | 1.53290 | 1.21940 | 1.13680 | .62260 | .58500 | .59580 |
| 1.398 | 8.500 | .23290 | 2068.10001 | 651.83000 | 1.64310 | 1.51700 | 1.20570 | 1.13170 | .61490 | .59180 | .57350 |
| 1.395 | 10.650 | .24140 | 2067.39999 | 653.32000 | 1.62770 | 1.49240 | 1.19480 | 1.12830 | .61180 | .58870 | .56060 |
| 1.399 | 12.804 | .22650 | 2068.10001 | 651.83000 | 1.61420 | 1.48170 | 1.20400 | 1.14280 | .60560 | .60550 | .54570 |
| 1.398 | 14.966 | .22770 | 2067.39999 | 651.85000 | 1.59380 | 1.47530 | 1.18500 | 1.13330 | .59980 | .61510 | .53030 |
| 1.399 | 17.135 | .23270 | 2068.10001 | 651.10000 | 1.57220 | 1.43860 | 1.17140 | 1.12910 | .58930 | .59700 | .51160 |
| 1.399 | 21.438 | .20130 | 2069.10001 | 650.36000 | 1.46050 | 1.39590 | 1.13120 | 1.11210 | .57730 | .59640 | .47510 |
| 1.400 | 25.700 | .21950 | 2068.10001 | 645.93000 | 1.46050 | 1.35080 | 1.10990 | 1.08030 | .56620 | .48710 | .44120 |
| | GRADIENT | .00726 | -.52346 | .01230 | -.00060 | -.00419 | -.00404 | -.00219 | .00247 | -.00157 | -.00312 |

TABULATED DATA - OA161 (ARC 11-97-87-09*)
 (AETR26) (02 AUG. 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AILRON = 5.000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6900 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| .597 | .094 | 2.27240 | 2628.89999 | 2066.79999 | 1.03310 | 1.05370 | 0.97540 | 0.96240 | 0.95640 | 0.94720 | 0.93820 |
| .594 | 4.195 | 2.31430 | 2629.60001 | 2071.00000 | 1.03660 | 1.05450 | 0.97890 | 0.96770 | 0.96380 | 0.95560 | 0.94660 |
| .597 | 8.367 | 2.32650 | 2630.29999 | 2066.79999 | 1.03690 | 1.05490 | 0.98150 | 0.99080 | 0.98610 | 0.97830 | 0.96930 |
| .595 | 10.475 | 2.33390 | 2631.00000 | 2068.89999 | 1.03110 | 1.04930 | 0.97970 | 0.99040 | 0.98580 | 0.97800 | 0.96900 |
| .595 | 12.630 | 2.32900 | 2631.00000 | 2070.29999 | 1.02390 | 1.04300 | 0.97650 | 0.98900 | 0.98430 | 0.97650 | 0.96750 |
| .595 | 14.764 | 2.31350 | 2631.00000 | 2071.00000 | 1.01740 | 1.03470 | 0.97300 | 0.98880 | 0.98410 | 0.97630 | 0.96730 |
| .595 | 16.988 | 2.31320 | 2631.00000 | 2069.60001 | 1.00770 | 1.02740 | 0.97000 | 0.98520 | 0.98050 | 0.97270 | 0.96370 |
| .597 | 21.123 | 2.29940 | 2632.50000 | 2068.20001 | 0.98240 | 1.00320 | 0.95370 | 0.97410 | 0.96940 | 0.96160 | 0.95260 |
| | GRADIENT | .01022 | .17068 | 1.02405 | .00085 | .00020 | .00085 | .00129 | -.00063 | -.00041 | -.00054 |

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| .901 | .039 | 2.30330 | 2108.39999 | 1245.30000 | 1.12490 | 1.16910 | 0.96040 | 0.96800 | 0.96660 | 0.96780 | 0.96520 |
| .901 | 4.255 | 2.32210 | 2105.50000 | 1243.89999 | 1.13410 | 1.17560 | 0.96630 | 0.99720 | 0.99100 | 0.97140 | 0.96780 |
| .901 | 6.372 | 2.32720 | 2107.70001 | 1247.39999 | 1.13960 | 1.17210 | 0.99460 | 1.00550 | 0.99040 | 0.97240 | 0.96770 |
| .900 | 8.499 | 2.32180 | 2110.50000 | 1246.00000 | 1.13090 | 1.16720 | 0.99800 | 1.00940 | 0.99660 | 0.96950 | 0.96750 |
| .900 | 10.626 | 2.33530 | 2107.70001 | 1246.00000 | 1.11980 | 1.16100 | 0.99790 | 1.01180 | 0.99200 | 0.96690 | 0.96500 |
| .900 | 12.792 | 2.31580 | 2107.70001 | 1243.89999 | 1.09910 | 1.14670 | 1.00040 | 1.01410 | 0.98330 | 0.94450 | 0.96560 |
| .903 | 14.954 | 2.33790 | 2111.20001 | 1243.89999 | 1.09830 | 1.13610 | 0.99870 | 1.02260 | 0.98410 | 0.93680 | 0.96450 |
| .900 | 17.131 | 2.34790 | 2107.70001 | 1246.00000 | 1.07750 | 1.11660 | 0.98690 | 1.01600 | 0.93980 | 0.91980 | 0.94550 |
| .902 | 21.382 | 2.33270 | 2110.50000 | 1245.30000 | 1.03370 | 1.07300 | 0.96780 | 1.00200 | 0.93740 | 0.92660 | 0.92060 |
| | GRADIENT | 0.04446 | -.18788 | -.33208 | .00218 | .00154 | .00614 | .00693 | .00081 | .00085 | .00043 |

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| .980 | .070 | 2.28270 | 2066.60001 | 1117.90000 | 1.19200 | 1.25980 | 1.00581 | 1.00581 | 0.80210 | 0.78210 | 0.81710 |
| .980 | 4.288 | 2.32380 | 2064.50000 | 1116.39999 | 1.20200 | 1.24530 | 1.03290 | 1.04080 | 0.80190 | 0.79200 | 0.81470 |
| .979 | 8.575 | 2.33290 | 2067.39999 | 1118.50000 | 1.19480 | 1.23710 | 1.04601 | 1.05330 | 0.79020 | 0.76590 | 0.79660 |
| .978 | 10.773 | 2.32230 | 2065.89999 | 1119.20000 | 1.18290 | 1.22640 | 1.04521 | 1.05748 | 0.78340 | 0.76420 | 0.78930 |
| .978 | 12.899 | 2.29560 | 2065.89999 | 1119.89999 | 1.17180 | 1.21390 | 1.04960 | 1.05640 | 0.77480 | 0.74850 | 0.78040 |
| .979 | 15.065 | 2.34490 | 2066.60001 | 1119.20000 | 1.15380 | 1.19540 | 1.04300 | 1.06640 | 0.76260 | 0.73620 | 0.76280 |
| .979 | 17.268 | 2.34940 | 2065.89999 | 1117.80000 | 1.13850 | 1.18030 | 1.03570 | 1.06490 | 0.75860 | 0.73740 | 0.75860 |
| .981 | 21.548 | 2.31950 | 2068.79999 | 1117.80000 | 1.08950 | 1.13980 | 1.00780 | 1.04210 | 0.73410 | 0.70800 | 0.71060 |
| | GRADIENT | 0.0974 | -.49786 | -.53191 | .00237 | .00130 | .00642 | .00627 | -.00005 | -.00069 | -.00057 |

ORIGINAL PAGE IS
 OF POOR QUALITY

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = 5.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 1075.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | PN/L | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.102 | .052 | 2.29370 | 2017.10001 | 842.61000 | 1.33220 | 1.38830 | 1.11650 | 1.10990 | .72920 | .70770 | .71660 |
| 1.102 | 4.292 | 2.31970 | 2017.80000 | 843.31000 | 1.33680 | 1.38930 | 1.14440 | 1.14550 | .72450 | .70230 | .71250 |
| 1.100 | 8.589 | 2.32200 | 2019.30000 | 846.11000 | 1.37260 | 1.37080 | 1.15980 | 1.15680 | .71130 | .67990 | .69510 |
| 1.099 | 10.751 | 2.32370 | 2017.10001 | 846.09000 | 1.31100 | 1.35850 | 1.16870 | 1.16160 | .70890 | .67340 | .69130 |
| 1.101 | 12.933 | 2.30450 | 2020.00000 | 845.42000 | 1.29650 | 1.34120 | 1.15770 | 1.15990 | .70580 | .67070 | .67930 |
| 1.099 | 15.113 | 2.35000 | 2017.10001 | 846.79000 | 1.27240 | 1.31660 | 1.14360 | 1.16560 | .70020 | .65130 | .66310 |
| 1.099 | 17.347 | 2.35850 | 2019.30000 | 846.81000 | 1.24760 | 1.29180 | 1.12340 | 1.14900 | .69170 | .63930 | .63990 |
| 1.102 | 21.636 | 2.33520 | 2022.10001 | 844.75000 | 1.18990 | 1.23490 | 1.03010 | 1.08360 | .66210 | .58790 | .59830 |
| | GRADIENT | .00613 | .16509 | .16509 | .00108 | .00024 | .00654 | .00840 | -.00111 | -.00127 | -.00097 |

RUN NO. 184 / 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PN/L | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.197 | .063 | 2.28560 | 2017.10001 | 835.31000 | 1.40290 | 1.45740 | 1.16990 | 1.15140 | .67810 | .68000 | .68020 |
| 1.198 | 4.286 | 2.30300 | 2016.39999 | 833.22000 | 1.40690 | 1.45940 | 1.20100 | 1.18120 | .67910 | .65130 | .66300 |
| 1.198 | 8.590 | 2.32930 | 2017.80000 | 833.93000 | 1.40120 | 1.44230 | 1.19880 | 1.17390 | .67390 | .63690 | .64440 |
| 1.198 | 10.753 | 2.33390 | 2018.50000 | 834.63000 | 1.38980 | 1.42620 | 1.15940 | 1.12920 | .66140 | .61520 | .62940 |
| 1.191 | 12.934 | 2.30600 | 2017.80000 | 842.29000 | 1.35980 | 1.36800 | 1.11430 | 1.11740 | .65670 | .61100 | .61590 |
| 1.199 | 15.101 | 2.36320 | 2017.80000 | 833.23000 | 1.34940 | 1.38820 | 1.10110 | 1.11860 | .65190 | .61710 | .59550 |
| 1.193 | 17.328 | 2.36610 | 2017.10001 | 839.50000 | 1.31820 | 1.35690 | 1.08190 | 1.11610 | .64090 | .60980 | .58560 |
| 1.200 | 21.614 | 2.33560 | 2021.39999 | 833.26000 | 1.26680 | 1.30600 | 1.03120 | 1.09560 | .63440 | .56100 | .56940 |
| | GRADIENT | .00413 | -.16602 | -.49567 | .00095 | -.00047 | .00738 | .00707 | .00024 | .00431 | .00066 |

RUN NO. 177 / 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PN/L | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|---------|--------|
| 1.400 | .016 | 2.35790 | 2057.39999 | 646.14000 | 1.59850 | 1.64070 | 1.15370 | 1.17720 | .61110 | .58410 | .59320 |
| 1.399 | 4.286 | 2.33030 | 2056.70001 | 646.89000 | 1.60100 | 1.63110 | 1.17480 | 1.19460 | .61680 | .56320 | .61020 |
| 1.397 | 8.517 | 2.31880 | 2058.20001 | 649.61000 | 1.57610 | 1.59580 | 1.16090 | 1.18820 | .60860 | .57150 | .57840 |
| 1.397 | 10.674 | 2.33760 | 2057.39999 | 649.09000 | 1.56930 | 1.57840 | 1.15820 | 1.18500 | .60250 | .57860 | .56890 |
| 1.398 | 12.850 | 2.29060 | 2058.20001 | 649.08000 | 1.54370 | 1.55660 | 1.15210 | 1.18510 | .59560 | .56610 | .54460 |
| 1.398 | 15.014 | 2.35980 | 2058.20001 | 648.34000 | 1.52380 | 1.53830 | 1.13370 | 1.19580 | .60310 | .56760 | .54310 |
| 1.399 | 17.235 | 2.36490 | 2057.39999 | 647.61000 | 1.49700 | 1.51870 | 1.10940 | 1.19330 | .59250 | .61060 | .51620 |
| 1.399 | 21.521 | 2.29320 | 2056.69999 | 647.59000 | 1.44010 | 1.47160 | 1.06450 | 1.16620 | .58890 | .50850 | .49420 |
| | GRADIENT | -.00181 | -.16628 | .17815 | .00059 | -.00228 | .00501 | .00413 | .00135 | -.00021 | .00404 |

(AE7RE7) (02 AUG 78)

TABULATED DATA - 0A16) (ARC 11-97-87-094)

ARC 11-97-87-094 0A16) ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = 5.000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2698.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 956.6800 IN. ZMRP = 378.0000 IN. ZO
SCALE = .0300

RUN NO. 2054 0 RW/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .597 | .106 | 5.36240 | 2629.60001 | 2066.79999 | 1.01080 | 1.07570 | .96480 | .99400 | .95410 | .94340 | .95470 |
| .596 | 4.212 | 5.39310 | 2627.60001 | 2067.50800 | 1.01600 | 1.07920 | .97070 | 1.00280 | .95450 | .94450 | .95430 |
| .596 | 8.392 | 5.40360 | 2630.29999 | 2068.89999 | 1.01420 | 1.07740 | .96980 | 1.00420 | .95470 | .94410 | .95430 |
| .597 | 10.514 | 5.39370 | 2630.29999 | 2068.89999 | 1.00870 | 1.07260 | .96860 | 1.00360 | .95510 | .94580 | .95550 |
| .594 | 12.639 | 5.39410 | 2631.00000 | 2068.20001 | 1.08330 | 1.06700 | .96740 | 1.00670 | .95610 | .94510 | .95366 |
| .594 | 14.781 | 5.38790 | 2634.00000 | 2072.39999 | .99440 | 1.05830 | .96030 | 1.00890 | .95140 | .93740 | .95130 |
| .596 | 16.871 | 5.38530 | 2631.00000 | 2069.60001 | .98660 | 1.05970 | .95710 | 1.00870 | .95020 | .93420 | .94770 |
| .596 | 21.065 | 5.39700 | 2631.00000 | 2068.60001 | .96210 | 1.02730 | .94070 | .99210 | .94360 | .92470 | .93750 |
| | GRADIENT | .00748 | .00000 | .17045 | .00127 | .00085 | .00144 | .00214 | .00010 | .00027 | .00010 |

RUN NO. 1964 0 RW/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .889 | .067 | 5.37970 | 2104.79999 | 1245.30000 | 1.07520 | 1.22150 | .93720 | .99770 | .87970 | .85480 | .87620 |
| .900 | 4.268 | 5.41900 | 2108.39999 | 1246.70000 | 1.08290 | 1.22760 | .96170 | 1.02630 | .88390 | .85960 | .87620 |
| .902 | 6.388 | 5.42400 | 2109.79999 | 1245.30000 | 1.09008 | 1.22580 | .97200 | 1.03980 | .88540 | .86120 | .87510 |
| .899 | 8.512 | 5.4.980 | 2107.00000 | 1247.39999 | 1.08058 | 1.23100 | .97650 | 1.04130 | .88740 | .86330 | .88330 |
| .901 | 10.666 | 5.40530 | 2109.79999 | 1246.00000 | 1.07258 | 1.21250 | .98230 | 1.04750 | .87730 | .85730 | .87940 |
| .899 | 12.794 | 5.41250 | 2109.79999 | 1246.70000 | 1.06260 | 1.20510 | .98020 | 1.05040 | .87040 | .85030 | .87810 |
| .899 | 14.931 | 5.43420 | 2108.39999 | 1247.39999 | 1.04780 | 1.18880 | .97180 | 1.05190 | .86870 | .83860 | .87080 |
| .960 | 17.065 | 5.45160 | 2108.39999 | 1246.70000 | 1.03060 | 1.17400 | .96340 | 1.05710 | .86070 | .83080 | .86030 |
| .982 | 21.363 | 5.46300 | 2111.89999 | 1246.00000 | .98220 | 1.13390 | .93930 | 1.04140 | .81210 | .78120 | .82956 |
| | GRADIENT | .00985 | .00000 | .33321 | .00183 | .00145 | .00583 | .00681 | .00100 | .00114 | .00000 |

RUN NO. 1954 0 RW/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .979 | .080 | 5.39970 | 2067.39999 | 1116.50000 | 1.13380 | 1.29998 | .98670 | 1.04280 | .79590 | .77560 | .80030 |
| .980 | 4.301 | 5.41550 | 2064.50000 | 1116.39999 | 1.14360 | 1.30730 | 1.00780 | 1.07460 | .79320 | .77770 | .81480 |
| .977 | 8.988 | 5.41610 | 2065.89999 | 1121.30000 | 1.13450 | 1.29240 | 1.02340 | 1.08570 | .79680 | .77660 | .79810 |
| .977 | 10.757 | 5.39530 | 2067.39999 | 1122.10001 | 1.12430 | 1.28650 | 1.02320 | 1.09260 | .79590 | .77340 | .79660 |
| .978 | 12.894 | 5.39730 | 2065.89999 | 1119.20000 | 1.11600 | 1.27610 | 1.01980 | 1.09740 | .79240 | .76480 | .79450 |
| .977 | 15.044 | 5.40750 | 2065.89999 | 1121.30000 | 1.09560 | 1.25990 | 1.01220 | 1.09770 | .78810 | .76290 | .79180 |
| .981 | 17.205 | 5.43360 | 2065.89999 | 1115.60001 | 1.08110 | 1.24640 | 1.00520 | 1.10540 | .78220 | .75620 | .78220 |
| .984 | 21.515 | 5.45000 | 2068.79999 | 1117.80000 | 1.02730 | 1.19750 | .97350 | 1.08750 | .73520 | .69710 | .71920 |
| | GRADIENT | .00611 | -.68696 | -.49746 | .00232 | .00175 | .00642 | .00753 | .00064 | .00050 | .00343 |

TABLATED DATA - 0A161 (ARC 11-97-87-09+ 1
ARC 11-97-87-09+ 0A161 ORBITER

(AETR27) (02 AUG 76)

REFERENCE DATA

SPEF = 2690.0380 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = 5.000 ELEVON = .000
ATLRON = 5.000 BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.098 | .083 | 5.37020 | 2015.70000 | 946.09008 | 1.25480 | 1.46780 | 1.08060 | 1.14680 | .70870 | .68230 | .69310 |
| 1.107 | 4.314 | 5.41690 | 2017.80000 | 944.70000 | 1.26590 | 1.45820 | 1.11530 | 1.18660 | .71090 | .68590 | .69570 |
| 1.099 | 8.610 | 5.41350 | 2050.00000 | 945.81000 | 1.23380 | 1.44650 | 1.13360 | 1.19880 | .69970 | .66770 | .67940 |
| 1.099 | 10.783 | 5.39350 | 2016.39999 | 945.39000 | 1.23980 | 1.43270 | 1.13630 | 1.20410 | .70010 | .65710 | .67130 |
| 1.098 | 12.932 | 5.39370 | 2016.39999 | 946.78000 | 1.22120 | 1.41580 | 1.12100 | 1.20100 | .70090 | .65270 | .67120 |
| 1.092 | 15.092 | 5.41380 | 2017.10001 | 946.09000 | 1.19750 | 1.39350 | 1.10550 | 1.19640 | .70400 | .66560 | .67880 |
| 1.099 | 17.254 | 5.44880 | 2015.00000 | 944.67000 | 1.18270 | 1.37840 | 1.09670 | 1.20640 | .71010 | .65040 | .66510 |
| 1.122 | 21.578 | 5.47280 | 2018.50000 | 942.62000 | 1.12630 | 1.32310 | .98510 | 1.14370 | .65860 | .60070 | .62800 |
| | GRADIENT | .01104 | .49636 | -.32614 | .00262 | .00033 | .00820 | .00893 | .00052 | .00085 | .80061 |

RUN NO. 185/ 0 RW/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.200 | .078 | 5.40340 | 2017.10001 | 831.84000 | 1.32900 | 1.55790 | 1.13830 | 1.20620 | .68860 | .63740 | .64440 |
| 1.198 | 4.301 | 5.42170 | 2016.39999 | 833.91000 | 1.33020 | 1.54720 | 1.16900 | 1.23900 | .68100 | .64730 | .65800 |
| 1.193 | 8.607 | 5.41880 | 2017.10001 | 839.50000 | 1.31200 | 1.52450 | 1.15040 | 1.22070 | .66830 | .63050 | .63900 |
| 1.195 | 10.779 | 5.40390 | 2017.80000 | 837.41000 | 1.29760 | 1.51270 | 1.09058 | 1.18810 | .65750 | .61520 | .62290 |
| 1.196 | 12.930 | 5.41420 | 2017.80000 | 836.02000 | 1.28980 | 1.49840 | 1.06398 | 1.17980 | .68400 | .61780 | .63210 |
| 1.195 | 15.093 | 5.42960 | 2017.10001 | 837.40000 | 1.26430 | 1.47720 | 1.04160 | 1.17420 | .66210 | .59870 | .61950 |
| 1.195 | 17.255 | 5.47470 | 2017.80000 | 837.41000 | 1.23827 | 1.45370 | 1.01580 | 1.17580 | .65190 | .57890 | .59890 |
| 1.199 | 21.571 | 5.48550 | 2020.70000 | 834.64000 | 1.17770 | 1.40430 | .96460 | 1.16790 | .62960 | .56710 | .59420 |
| 1.199 | GRADIENT | .00433 | -.16574 | .49813 | .00028 | -.00253 | .00727 | .00777 | .00234 | .00234 | -.00322 |

RUN NO. 176/ 0 RW/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.402 | .051 | 5.40900 | 2058.20001 | 645.39000 | 1.50720 | 1.76630 | 1.10030 | 1.26000 | .60380 | .58670 | .56790 |
| 1.400 | 4.255 | 5.43230 | 2056.70001 | 646.15000 | 1.51500 | 1.75870 | 1.11500 | 1.27350 | .60950 | .56950 | .59250 |
| 1.397 | 8.549 | 5.43520 | 2059.60001 | 649.79000 | 1.46420 | 1.72840 | 1.09500 | 1.26830 | .60210 | .55250 | .57650 |
| 1.397 | 10.719 | 5.40490 | 2058.89999 | 649.80000 | 1.46180 | 1.70790 | 1.09770 | 1.26550 | .60080 | .55260 | .56640 |
| 1.397 | 12.894 | 5.41250 | 2058.89999 | 649.80000 | 1.44780 | 1.69160 | 1.08030 | 1.26570 | .60180 | .53170 | .54220 |
| 1.401 | 15.001 | 5.43900 | 2058.89999 | 646.11000 | 1.42420 | 1.67630 | 1.05950 | 1.28148 | .59860 | .50750 | .53730 |
| 1.399 | 17.174 | 5.48320 | 2058.89999 | 648.32000 | 1.39230 | 1.65320 | 1.03680 | 1.28370 | .58950 | .49340 | .51680 |
| 1.399 | 21.487 | 5.50190 | 2059.60001 | 648.31000 | 1.33230 | 1.59860 | .97890 | 1.26580 | .58050 | .50380 | .51460 |
| 1.399 | GRADIENT | .00554 | -.35561 | .18078 | .00186 | -.00157 | .00361 | .00321 | -.00136 | -.00409 | .00538 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

(AETR28) (02 AUG 75)

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AILRON = 7.500 BOFLAP = -7.170

| MACH | ALPHA | BETA | RUN NO. | 210/0 | PT | RM/L | 4.21 | GRADIENT INTERVAL | -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|----|------|------|-------------------|--------|------|---------|---------|---------|---------|---------|---------|-------|
| .596 | .141 | -4.90680 | 2591.39999 | 2038.39999 | P | | | | | | 1.00190 | 1.00000 | 1.00000 | .95700 | .94550 | .95680 | |
| .596 | 4.205 | -4.92180 | 2592.10001 | 2039.80000 | | | | | | | 1.00480 | 1.08820 | 1.01010 | .96240 | .94500 | .95960 | |
| .596 | 8.370 | -4.96310 | 2592.89999 | 2039.80000 | | | | | | | 1.00108 | 1.08610 | 1.00990 | .96870 | .94570 | .96100 | |
| .596 | 10.480 | -4.88820 | 2592.89999 | 2039.80000 | | | | | | | .98700 | 1.08230 | 1.01010 | .96350 | .94560 | .96390 | |
| .596 | 12.988 | -4.85830 | 2592.89999 | 2039.80000 | | | | | | | .99880 | 1.07350 | 1.00770 | .95920 | .94600 | .95820 | |
| .597 | 14.684 | -4.85330 | 2592.89999 | 2039.80000 | | | | | | | .98420 | 1.06260 | 1.00860 | .95760 | .94570 | .95700 | |
| .596 | 16.775 | -4.86050 | 2592.89999 | 2039.10001 | | | | | | | .97400 | 1.06000 | 1.00480 | .94478 | .94570 | .95070 | |
| .596 | 21.015 | -4.88840 | 2596.89999 | 2036.30000 | | | | | | | .98440 | 1.03880 | 1.00480 | .93240 | .94478 | .94060 | |
| .598 | GRADIENT | -.00369 | .17228 | .00000 | | | | | | | .00071 | .00249 | .00133 | -.00015 | -.00012 | -.00044 | |

| MACH | ALPHA | BETA | RUN NO. | 211/0 | PT | RM/L | 4.24 | GRADIENT INTERVAL | -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|----|------|------|-------------------|--------|------|---------|---------|---------|---------|---------|--------|-------|
| .901 | .124 | -4.95580 | 2126.10001 | 1255.89999 | P | | | | | | 1.04850 | 1.02340 | 1.02340 | .90650 | .88270 | .88190 | |
| .901 | 4.288 | -4.93750 | 2127.50000 | 1256.60001 | | | | | | | 1.05450 | 1.05240 | 1.05240 | .93290 | .88040 | .88720 | |
| .901 | 6.396 | -4.94070 | 2128.89999 | 1257.30000 | | | | | | | 1.05240 | 1.06400 | 1.06400 | .94510 | .88240 | .88630 | |
| .903 | 8.516 | -4.93650 | 2129.60001 | 1254.50000 | | | | | | | 1.04960 | 1.07320 | 1.07320 | .94870 | .86990 | .89670 | |
| .897 | 10.651 | -4.91060 | 2130.29999 | 1263.10001 | | | | | | | 1.03850 | 1.06810 | 1.06810 | .95490 | .86080 | .89350 | |
| .900 | 12.764 | -4.92350 | 2135.70001 | 1263.70000 | | | | | | | 1.02660 | 1.06820 | 1.06820 | .95530 | .86150 | .87990 | |
| .900 | 14.887 | -4.92260 | 2135.20001 | 1262.30000 | | | | | | | 1.01590 | 1.07460 | 1.07460 | .95410 | .85080 | .86890 | |
| .900 | 17.032 | -4.93260 | 2134.50000 | 1262.30000 | | | | | | | .99180 | 1.06580 | 1.06580 | .94550 | .83520 | .85810 | |
| .898 | 21.320 | -4.96930 | 2133.79999 | 1264.50000 | | | | | | | .94370 | 1.04720 | 1.04720 | .81090 | .79500 | .81400 | |
| | GRADIENT | .00440 | -.33670 | .16835 | | | | | | | .00144 | .00597 | .00635 | -.00055 | -.00010 | .00127 | |

| MACH | ALPHA | BETA | RUN NO. | 221/0 | PT | RM/L | 4.27 | GRADIENT INTERVAL | -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|----|------|------|-------------------|--------|------|---------|---------|---------|---------|---------|---------|-------|
| 1.198 | .115 | -4.98300 | 2046.10001 | 845.95000 | P | | | | | | 1.29800 | 1.28410 | 1.28410 | 1.05590 | .68240 | .67480 | |
| 1.203 | 4.280 | -4.95050 | 2026.30000 | 832.61000 | | | | | | | 1.25280 | 1.30610 | 1.30610 | 1.09190 | .65430 | .66580 | |
| 1.198 | 8.571 | -4.94330 | 2020.70000 | 836.03000 | | | | | | | 1.22550 | 1.30430 | 1.30430 | 1.05400 | .66400 | .62950 | |
| 1.200 | 10.725 | -4.92850 | 2019.30000 | 832.55000 | | | | | | | 1.24830 | 1.29130 | 1.29130 | 1.01880 | .63760 | .62540 | |
| 1.196 | 12.885 | -4.92530 | 2019.30000 | 836.72000 | | | | | | | 1.19210 | 1.26210 | 1.26210 | .64790 | .60920 | .59158 | |
| 1.199 | 15.041 | -4.93890 | 2019.30000 | 833.24000 | | | | | | | 1.17840 | 1.25280 | 1.25280 | .64190 | .58820 | .59140 | |
| 1.199 | 17.221 | -4.94170 | 2019.30000 | 834.63000 | | | | | | | 1.14890 | 1.23600 | 1.23600 | .63660 | .57040 | .57120 | |
| 1.199 | 21.544 | -4.96130 | 2022.10001 | 836.04000 | | | | | | | 1.09560 | 1.19441 | 1.19441 | .63670 | .58438 | .57240 | |
| | GRADIENT | .00780 | -.4.75321 | -.5.20242 | | | | | | | .00125 | .00576 | .00854 | -.00127 | -.00209 | -.00216 | |

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TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITTER

(AETR28) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = 7.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 2207 0 RVAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.402 | .073 | -4.98750 | 2075.79999 | 650.94000 | 1.40690 | 1.34080 | 1.34080 | 1.02680 | .59760 | .57630 | .56840 |
| 1.402 | 4.236 | -4.93850 | 2075.79999 | 650.94000 | 1.39080 | 1.35250 | 1.35250 | 1.04100 | .59570 | .57650 | .56590 |
| 1.398 | 8.503 | -4.86870 | 2078.00000 | 654.59000 | 1.34840 | 1.34570 | 1.34570 | 1.03330 | .60160 | .57090 | .54380 |
| 1.401 | 13.650 | -4.95430 | 2078.00000 | 652.36000 | 1.33030 | 1.33520 | 1.33520 | 1.03740 | .59730 | .58170 | .54050 |
| 1.400 | 12.801 | -4.93120 | 2077.29999 | 653.13000 | 1.30800 | 1.33080 | 1.33080 | 1.02780 | .54690 | .56960 | .52130 |
| 1.392 | 14.968 | -4.95440 | 2077.29999 | 654.61000 | 1.28770 | 1.33570 | 1.33570 | 1.01550 | .58330 | .52620 | .50230 |
| 1.398 | 17.132 | -4.95440 | 2077.29999 | 654.61000 | 1.26270 | 1.32140 | 1.32140 | 1.00650 | .59160 | .51690 | .49950 |
| 1.398 | 21.478 | -4.96600 | 2078.70001 | 655.32000 | 1.21420 | 1.30350 | 1.30350 | 1.00650 | .58100 | .51690 | .48870 |
| | GRADIENT | .01177 | .00001 | .00000 | .00026 | .00281 | .00281 | .00341 | -.00046 | .00007 | -.00060 |

ARC 11-97-87-094 0A161 ORBITTER

(AETR29) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = 7.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 2094 0 RVAL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|--------|--------|--------|--------|---------|
| .595 | .105 | -1.86180 | 2593.60001 | 2039.10001 | 1.06180 | 1.02180 | .98710 | .96500 | .95300 | .94630 | .95740 |
| .597 | 4.181 | -1.82350 | 2593.60001 | 2038.39999 | 1.06700 | 1.02780 | .98740 | .97260 | .95320 | .94640 | .95700 |
| .596 | 8.343 | -1.81870 | 2593.60001 | 2038.39999 | 1.06600 | 1.02420 | .98770 | .97260 | .95430 | .94710 | .95820 |
| .595 | 10.450 | -1.81830 | 2593.60001 | 2039.10001 | 1.06180 | 1.01930 | .98400 | .97500 | .95450 | .94750 | .95920 |
| .595 | 12.577 | -1.80490 | 2594.29999 | 2041.30000 | 1.05400 | 1.01140 | .98400 | .97160 | .95230 | .94650 | .95680 |
| .596 | 14.676 | -1.81050 | 2593.60001 | 2039.80000 | 1.04640 | 1.00500 | .98390 | .96360 | .94990 | .94560 | .95440 |
| .596 | 16.803 | -1.84160 | 2593.60001 | 2039.80000 | 1.03880 | .99590 | .99020 | .96600 | .94350 | .94350 | .94860 |
| .597 | 21.061 | -1.84160 | 2595.00000 | 2039.80000 | 1.01310 | .97330 | .97360 | .95270 | .93640 | .92950 | .93170 |
| | GRADIENT | .00694 | .00000 | -.17176 | .00128 | .00147 | .00253 | .00186 | .00002 | .00002 | -.00044 |

(AETRES) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AHLRON = 7.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0800 IN. Z0
SCALE = .0300

RUN NO. 2124 0 RMAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .900 | .058 | -1.83560 | 2133.79999 | 1261.68000 | 1.19180 | 1.09770 | .99530 | .92810 | .88170 | .85510 | .87980 |
| .901 | 4.255 | -1.85520 | 2133.79999 | 1260.20000 | 1.20360 | 1.10390 | 1.02230 | .95890 | .88660 | .87410 | .89210 |
| .900 | 6.352 | -1.85230 | 2133.79999 | 1261.60001 | 1.20730 | 1.10180 | 1.03080 | .96860 | .89340 | .86990 | .88130 |
| .901 | 8.491 | -1.83960 | 2133.79999 | 1260.89999 | 1.19800 | 1.09590 | 1.03770 | .96860 | .89340 | .86990 | .88800 |
| .899 | 10.624 | -1.83310 | 2133.79999 | 1262.30008 | 1.19040 | 1.08920 | 1.03760 | .97420 | .87870 | .85990 | .88570 |
| .902 | 12.755 | -1.82750 | 2134.50000 | 1258.80000 | 1.18360 | 1.08150 | 1.04590 | .98530 | .87270 | .85700 | .88300 |
| .903 | 14.874 | -1.82720 | 2134.50000 | 1258.10001 | 1.17020 | 1.06830 | 1.04280 | .98270 | .85850 | .84560 | .85700 |
| .901 | 17.057 | -1.88610 | 2133.79999 | 1260.89999 | 1.15240 | 1.04620 | 1.03360 | .97560 | .84190 | .83130 | .85230 |
| .903 | 21.356 | -1.85940 | 2135.20001 | 1258.10001 | 1.10850 | 1.00200 | 1.01470 | .95820 | .80370 | .78630 | .81010 |
| GRADIENT | | -.00467 | .00000 | -.33362 | .00281 | .00148 | .00643 | .00734 | .00117 | .00214 | .00293 |

RUN NO. 2227 0 RM/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.200 | .058 | -1.84000 | 2020.00000 | 832.55000 | 1.52070 | 1.34450 | 1.23220 | 1.08700 | .68280 | .65310 | .69010 |
| 1.198 | 4.260 | -1.86980 | 2018.50000 | 833.24000 | 1.52200 | 1.33570 | 1.25780 | 1.11650 | .67840 | .64950 | .66620 |
| 1.201 | 6.549 | -1.84470 | 2019.50000 | 831.85000 | 1.51210 | 1.31670 | 1.26170 | 1.10250 | .67330 | .64290 | .64950 |
| 1.199 | 10.725 | -1.81770 | 2018.50000 | 833.93000 | 1.49830 | 1.30390 | 1.22660 | 1.05530 | .66430 | .63350 | .63800 |
| 1.195 | 12.878 | -1.81950 | 2018.50000 | 837.41000 | 1.47970 | 1.28450 | 1.20550 | 1.04950 | .65080 | .63780 | .60870 |
| 1.199 | 15.027 | -1.80560 | 2017.80000 | 833.23000 | 1.46860 | 1.26680 | 1.19130 | 1.04160 | .64080 | .61490 | .58350 |
| 1.199 | 17.244 | -1.80390 | 2019.50000 | 833.94000 | 1.44440 | 1.23620 | 1.17450 | 1.02970 | .62760 | .57280 | .57510 |
| 1.199 | 21.584 | -1.87640 | 2020.70000 | 834.64000 | 1.38520 | 1.17830 | 1.13010 | 1.00900 | .62410 | .60980 | .53900 |
| GRADIENT | | -.00709 | -.35695 | .16420 | .00031 | -.00289 | .00609 | .00702 | -.00105 | -.00038 | -.00569 |

RUN NO. 219/ 0 RM/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.404 | .051 | -1.88200 | 2077.29999 | 649.44000 | 1.79490 | 1.50140 | 1.25630 | 1.08880 | .60690 | .58370 | .59520 |
| 1.402 | 4.218 | -1.83380 | 2076.50000 | 650.93000 | 1.74410 | 1.49030 | 1.26950 | 1.09840 | .60560 | .58750 | .58510 |
| 1.400 | 6.492 | -1.83450 | 2077.29999 | 653.13000 | 1.74470 | 1.44980 | 1.26620 | 1.08990 | .60250 | .58250 | .56280 |
| 1.399 | 10.655 | -1.82590 | 2077.29999 | 654.61000 | 1.70360 | 1.42270 | 1.24740 | 1.09240 | .59490 | .60180 | .54690 |
| 1.399 | 12.799 | -1.81640 | 2077.29999 | 653.87000 | 1.69030 | 1.40850 | 1.25390 | 1.09230 | .59490 | .60030 | .53170 |
| 1.400 | 14.940 | -1.81610 | 2076.50000 | 652.40000 | 1.67400 | 1.38720 | 1.24700 | 1.08530 | .59590 | .60680 | .51800 |
| 1.402 | 17.159 | -1.81580 | 2076.50000 | 650.93000 | 1.65620 | 1.36740 | 1.23560 | 1.08530 | .58690 | .61360 | .51350 |
| 1.399 | 21.511 | -1.88400 | 2078.00000 | 653.85000 | 1.32040 | 1.32030 | 1.20320 | 1.05610 | .57230 | .53170 | .47890 |
| GRADIENT | | .00269 | -.19197 | .35754 | -.00127 | -.00506 | .00317 | .00230 | -.00091 | .00091 | -.00242 |

(AETRS0) (02 AUG 78)

ARC 11-97-87-094 0A161 ORBITER.

REFERENCE DATA.

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AIRLON = 7.500 BDFLAP = -7.170

RUN NO. 208/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|--------|--------|--------|--------|--------|
| .595 | .071 | .20980 | 2603.50000 | 2047.60001 | 1.04720 | 1.03760 | .98170 | .97330 | .95430 | .94640 | .95500 |
| .595 | 4.173 | .22290 | 2604.20001 | 2049.79999 | 1.05130 | 1.04080 | .98070 | .98080 | .95500 | .94650 | .95650 |
| .595 | 6.242 | .22680 | 2604.89999 | 2049.00000 | 1.05450 | 1.03970 | .99600 | .98210 | .95680 | .94770 | .95730 |
| .594 | 8.338 | .23680 | 2604.89999 | 2051.20001 | 1.04910 | 1.03630 | .98630 | .97970 | .95290 | .94600 | .96560 |
| .596 | 10.432 | .23030 | 2605.60001 | 2049.79999 | 1.04490 | 1.03360 | .98680 | .97940 | .95400 | .94720 | .95730 |
| .595 | 12.527 | .23370 | 2605.60001 | 2050.50000 | 1.03760 | 1.02690 | .98630 | .97940 | .95420 | .94760 | .95490 |
| .596 | 14.642 | .24740 | 2605.60001 | 2049.10001 | 1.03230 | 1.02100 | .98400 | .97940 | .95200 | .94660 | .95440 |
| .596 | 16.766 | .23910 | 2605.60001 | 2049.79999 | 1.02370 | 1.01080 | .97830 | .97520 | .94940 | .94590 | .95010 |
| .597 | 21.019 | .22950 | 2607.00000 | 2048.29999 | .99990 | .98860 | .96450 | .96330 | .93780 | .93280 | .93160 |
| .597 | 25.185 | .21690 | 2607.00000 | 2049.10001 | .96990 | .95760 | .94690 | .94700 | .92130 | .91350 | .91660 |
| GRADIENT | | .00319 | .17065 | .53651 | .00100 | .00078 | .00146 | .00183 | .00017 | .00005 | .00039 |

RUN NO. 213/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .899 | .044 | .22400 | 2133.10001 | 1264.50000 | 1.15620 | 1.13120 | .97560 | .94580 | .88280 | .86330 | .88010 |
| .900 | 4.253 | .22950 | 2134.50000 | 1261.60001 | 1.16830 | 1.14020 | 1.00370 | .94580 | .88860 | .87170 | .88750 |
| .902 | 6.371 | .22950 | 2133.79999 | 1258.80000 | 1.17500 | 1.13940 | 1.01480 | .98950 | .88860 | .87390 | .89350 |
| .896 | 8.491 | .24180 | 2133.10001 | 1266.60001 | 1.15990 | 1.12890 | 1.01560 | .98450 | .87710 | .86350 | .88292 |
| .901 | 10.641 | .23750 | 2132.39999 | 1259.39999 | 1.15980 | 1.12860 | 1.01850 | .99670 | .87680 | .86600 | .87790 |
| .902 | 12.748 | .22430 | 2133.79999 | 1259.50000 | 1.14930 | 1.11660 | 1.02510 | 1.00060 | .87280 | .85680 | .87790 |
| .902 | 14.893 | .24140 | 2134.50000 | 1258.80000 | 1.13300 | 1.10270 | 1.02000 | 1.00300 | .85750 | .84400 | .86660 |
| .903 | 17.037 | .23840 | 2133.79999 | 1257.39999 | 1.11790 | 1.08740 | 1.01610 | 1.00120 | .85080 | .82930 | .85050 |
| .893 | 21.304 | .22150 | 2136.70001 | 1265.10001 | 1.06870 | 1.03720 | .98770 | .97930 | .79650 | .78420 | .81140 |
| .899 | 25.478 | .19600 | 2132.39999 | 1261.60001 | 1.01650 | .98050 | .95700 | .95010 | .75430 | .71630 | .73220 |
| GRADIENT | | .00131 | .33263 | -.68898 | .00287 | .00214 | .00668 | .00746 | .00143 | .00389 | .00178 |

RUN NO. 223/ 0 RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|-----------|---------|---------|---------|---------|--------|---------|---------|
| 1.200 | .048 | .21090 | 2018.50000 | 932.54000 | 1.46380 | 1.40640 | 1.20010 | 1.11940 | .67730 | .65070 | .66860 |
| 1.198 | 4.274 | .22820 | 2017.10001 | 833.92000 | 1.46120 | 1.39070 | 1.22600 | 1.14250 | .67900 | .65060 | .65870 |
| 1.195 | 6.401 | .22270 | 2017.80000 | 837.41000 | 1.46380 | 1.38140 | 1.22770 | 1.14050 | .67570 | .64570 | .65230 |
| 1.198 | 8.570 | .23560 | 2018.50000 | 834.63000 | 1.45000 | 1.37430 | 1.23110 | 1.12950 | .67560 | .64400 | .64650 |
| 1.198 | 10.738 | .23350 | 2018.50000 | 834.63000 | 1.43760 | 1.36170 | 1.18250 | 1.08930 | .67160 | .64090 | .64090 |
| 1.195 | 12.898 | .23380 | 2018.50000 | 836.71000 | 1.41980 | 1.34370 | 1.16400 | 1.08400 | .65510 | .61920 | .61940 |
| 1.196 | 15.058 | .24170 | 2018.50000 | 836.71000 | 1.41600 | 1.32220 | 1.14250 | 1.07570 | .64290 | .64030 | .59820 |
| 1.200 | 17.223 | .22450 | 2018.50000 | 832.54000 | 1.34110 | 1.30540 | 1.13330 | 1.07320 | .63430 | .62790 | .57650 |
| 1.195 | 21.530 | .21150 | 2022.10001 | 838.83000 | 1.31720 | 1.23780 | 1.07360 | 1.04800 | .62100 | .58560 | .55110 |
| 1.195 | 25.753 | .21270 | 2022.10001 | 835.35000 | 1.25880 | 1.19310 | 1.03130 | 1.03490 | .60990 | .54720 | .51610 |
| GRADIENT | | .00409 | -.33128 | .32656 | -.00062 | -.00348 | .00513 | .00547 | .00040 | -.00006 | -.00045 |

TABULATED DATA - OAIMS (ARC 11-97-87-08*)
ARC 11-97-87-09* OAIMS ORBITER

(AETR301 (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = 7.500 BOFLAP = -7.178

RUN NO. 218* 0 RMYL = 4.24 GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.402 | .015 | .18650 | 2050.89999 | 645.37000 | 1.67340 | 1.56810 | 1.28520 | 1.12560 | .62680 | .58520 | .58790 |
| 1.401 | 4.220 | .21030 | 2050.29999 | 645.82000 | 1.65740 | 1.55150 | 1.21930 | 1.13970 | .61210 | .57940 | .62440 |
| 1.400 | 6.341 | .24140 | 2050.60001 | 647.57000 | 1.67450 | 1.53780 | 1.22350 | 1.14270 | .61940 | .58180 | .58920 |
| 1.398 | 8.497 | .23280 | 2051.00000 | 649.02000 | 1.64398 | 1.51690 | 1.21660 | 1.13400 | .61440 | .58450 | .57710 |
| 1.398 | 10.650 | .23520 | 2057.38999 | 648.35000 | 1.62970 | 1.49770 | 1.19750 | 1.13100 | .61000 | .58640 | .56280 |
| 1.397 | 12.799 | .23710 | 2057.39999 | 649.09000 | 1.61160 | 1.48090 | 1.20230 | 1.14140 | .60320 | .61250 | .55160 |
| 1.393 | 14.962 | .25050 | 2057.39999 | 647.61000 | 1.59690 | 1.46870 | 1.18810 | 1.13660 | .60210 | .60210 | .53660 |
| 1.398 | 17.127 | .23540 | 2057.39999 | 648.35000 | 1.55690 | 1.44020 | 1.16910 | 1.12920 | .58900 | .58980 | .52330 |
| 1.398 | 21.438 | .25140 | 2098.88999 | 648.32000 | 1.51410 | 1.39750 | 1.13310 | 1.11340 | .57640 | .57370 | .48550 |
| 1.396 | 25.760 | .20070 | 2060.29999 | 661.25000 | 1.44270 | 1.34160 | 1.09510 | 1.07250 | .55700 | .47370 | .43240 |
| | GRADIENT | .00516 | .33295 | .34485 | -.00143 | -.00792 | .00335 | .00276 | -.00126 | -.00139 | .00195 |

ARC 11-97-87-09* OAIMS ORBITER

(AETR311 (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = 7.500 BOFLAP = -7.178

RUN NO. 207* 0 RMYL = 4.22 GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|--------|---------|---------|---------|
| .597 | .070 | 2.29780 | 2604.20001 | 2046.20000 | 1.03490 | 1.05330 | .97380 | .98170 | .95390 | .94640 | .95650 |
| .594 | 4.184 | 2.31760 | 2604.20001 | 2051.83999 | 1.03470 | 1.05330 | .97840 | .98760 | .96240 | .94320 | .95490 |
| .595 | 8.357 | 2.33240 | 2605.60001 | 2050.50000 | 1.03440 | 1.05340 | .97940 | .99010 | .95470 | .94570 | .95760 |
| .594 | 10.462 | 2.34420 | 2606.60001 | 2052.60001 | 1.02990 | 1.04760 | .97770 | .98900 | .95320 | .94450 | .95590 |
| .596 | 12.622 | 2.33980 | 2606.29999 | 2049.79999 | 1.02410 | 1.04410 | .97790 | .98690 | .95320 | .94540 | .95540 |
| .595 | 14.759 | 2.32250 | 2606.29999 | 2049.10001 | 1.01890 | 1.03670 | .97590 | .98960 | .95280 | .94570 | .95530 |
| .596 | 16.906 | 2.31730 | 2606.29999 | 2049.10001 | 1.01860 | 1.02770 | .96870 | .98430 | .95030 | .94370 | .94730 |
| .594 | 21.119 | 2.30420 | 2606.29999 | 2052.60001 | .99200 | 1.00250 | .95220 | .97210 | .94120 | .92740 | .93660 |
| | GRADIENT | .00481 | .00000 | 1.36540 | .00068 | .00011 | .00112 | .00143 | -.00036 | -.00078 | -.00041 |

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TABULATED DATA - OR161 (ARC 11-97-87-094)
ARC 11-97-87-094 OR161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0006 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = 2.000 ELEVON = .000
ALFIRON = 7.560 BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .902 | .054 | 2.29100 | 2137.39999 | 1260.89999 | 1.12780 | 1.17850 | 95890 | 96870 | 88490 | 85980 | 89150 |
| .902 | 4.261 | 2.34000 | 2133.79999 | 1259.50000 | 1.13550 | 1.17700 | 98700 | 99890 | 89080 | 87350 | 88570 |
| .901 | 6.388 | 2.34180 | 2138.79999 | 1253.00000 | 1.13840 | 1.17210 | 1.00760 | 1.00760 | 88580 | 85570 | 88080 |
| .900 | 8.517 | 2.33510 | 2134.50000 | 1261.60000 | 1.13120 | 1.16950 | 1.00190 | 1.01040 | 88900 | 85930 | 88900 |
| .901 | 10.651 | 2.33920 | 2139.79999 | 1263.70000 | 1.12250 | 1.16170 | 99850 | 1.01250 | 87630 | 86070 | 87900 |
| .901 | 12.807 | 2.30590 | 2136.70000 | 1261.60000 | 1.11210 | 1.15220 | 1.00370 | 1.01910 | 87580 | 85500 | 88120 |
| .901 | 14.974 | 2.35530 | 2138.10000 | 1262.50000 | 1.09910 | 1.13880 | 1.00370 | 1.02820 | 86070 | 83590 | 85450 |
| .905 | 17.167 | 2.35910 | 2140.20000 | 1258.10000 | 1.08200 | 1.12430 | 99490 | 1.02530 | 84680 | 82600 | 85420 |
| .904 | 21.412 | 2.33390 | 2138.79999 | 1259.50000 | 1.03560 | 1.07900 | 97160 | 1.00700 | 78290 | 75610 | 81740 |
| | GRADIENT | .01165 | -.85581 | -.33281 | .00193 | .00193 | .00656 | .00706 | .00140 | .00114 | .00124 |

RUN NO. 214/ 0 RM/L = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.197 | .064 | 2.27680 | 2021.39999 | 836.74000 | 1.40140 | 1.45600 | 1.17050 | 1.15140 | 67340 | 64950 | 64740 |
| 1.198 | 4.279 | 2.33990 | 2018.50000 | 834.63000 | 1.40690 | 1.45250 | 1.20040 | 1.16240 | 64100 | 64100 | 64780 |
| 1.198 | 8.593 | 2.33570 | 2020.00000 | 835.33000 | 1.39190 | 1.43830 | 1.20150 | 1.16490 | 63610 | 63610 | 64100 |
| 1.195 | 10.758 | 2.33380 | 2017.80000 | 836.71000 | 1.38170 | 1.42560 | 1.15400 | 1.12450 | 66490 | 62280 | 63510 |
| 1.195 | 12.938 | 2.30990 | 2018.50000 | 837.41000 | 1.36320 | 1.40600 | 1.12180 | 1.11910 | 66790 | 62460 | 62220 |
| 1.197 | 15.108 | 2.36590 | 2017.90000 | 835.31000 | 1.34510 | 1.38710 | 1.10210 | 1.12560 | 65190 | 60860 | 60080 |
| 1.199 | 17.334 | 2.37190 | 2018.50000 | 833.24000 | 1.32280 | 1.36470 | 1.08500 | 1.11710 | 64080 | 60470 | 59480 |
| 1.199 | 21.623 | 2.34330 | 2021.39999 | 836.04000 | 1.26160 | 1.30470 | 1.03170 | 1.09850 | 62920 | 55370 | 55750 |
| | GRADIENT | .01495 | -.68795 | -.50054 | .00109 | -.00130 | .00700 | .00735 | -.00052 | -.00107 | .00005 |

RUN NO. 221/ 0 RM/L = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|---------|--------|
| 1.403 | .017 | 2.31550 | 2036.89999 | 637.69000 | 1.60410 | 1.64390 | 1.15430 | 1.17910 | 60200 | 59170 | 57930 |
| 1.402 | 4.224 | 2.31700 | 2036.89999 | 638.43000 | 1.60150 | 1.63240 | 1.17750 | 1.19310 | 60440 | 56780 | 57550 |
| 1.395 | 8.514 | 2.33620 | 2036.20000 | 644.33000 | 1.57170 | 1.59150 | 1.16710 | 1.18330 | 60430 | 55840 | 57300 |
| 1.397 | 10.670 | 2.33230 | 2037.60000 | 642.83000 | 1.55770 | 1.57950 | 1.15780 | 1.18490 | 60220 | 56040 | 56820 |
| 1.396 | 12.843 | 2.30620 | 2037.60000 | 644.31000 | 1.53790 | 1.56100 | 1.15060 | 1.18320 | 59270 | 58160 | 54930 |
| 1.397 | 15.011 | 2.34450 | 2037.60000 | 642.63000 | 1.52240 | 1.54220 | 1.13310 | 1.19320 | 60100 | 54250 | 54640 |
| 1.399 | 17.234 | 2.36630 | 2037.60000 | 642.10000 | 1.49310 | 1.51690 | 1.10800 | 1.19040 | 58630 | 60270 | 52760 |
| 1.399 | 21.527 | 2.34400 | 2039.39999 | 647.24000 | 1.43020 | 1.46740 | 1.05960 | 1.16110 | 53550 | 43420 | 43420 |
| | GRADIENT | .00036 | .00000 | .17591 | -.00062 | -.00273 | .00551 | .00333 | .00057 | -.00573 | .00123 |

RUN NO. 217/ 0 RM/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - 0A161 (AFC 11-97-87-09M)
ARC 11-97-87-09M 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 ALLRON = 7.500 SDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.6900 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 206/ 0 RML = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|-----------|-----------|---------|---------|--------|---------|---------|--------|--------|
| .537 | .111 | 5.37160 | 2607.7000 | 2048.1000 | 1.01030 | 1.07530 | .96450 | .99360 | .95250 | .94270 | .95340 |
| .537 | 4.213 | 5.39950 | 2607.0000 | 2049.1000 | 1.01490 | 1.07930 | .96850 | 1.00260 | .95240 | .94100 | .95370 |
| .536 | 6.297 | 5.40680 | 2605.6000 | 2049.1000 | 1.01790 | 1.07860 | .97120 | 1.00610 | .95270 | .94210 | .95390 |
| .536 | 8.388 | 5.41240 | 2606.2999 | 2049.7999 | 1.01340 | 1.07570 | .96800 | 1.00290 | .95120 | .94300 | .95360 |
| .536 | 10.511 | 5.40820 | 2606.2999 | 2049.1000 | 1.00800 | 1.07300 | .96990 | 1.00530 | .95470 | .94160 | .95350 |
| .536 | 12.635 | 5.40920 | 2606.2999 | 2049.7999 | 1.00320 | 1.06570 | .96570 | 1.00380 | .95330 | .94690 | .95330 |
| .536 | 14.759 | 5.40300 | 2605.2999 | 2049.1000 | .99530 | 1.05920 | .96060 | 1.00100 | .95280 | .93870 | .94890 |
| .536 | 16.867 | 5.39790 | 2606.2999 | 2049.7999 | .98480 | 1.05020 | .95530 | 1.00140 | .95310 | .93580 | .94890 |
| .536 | 21.032 | 5.40520 | 2607.0000 | 2049.7999 | .96190 | 1.02820 | .94030 | .99280 | .94440 | .92190 | .93660 |
| | GRADIENT | .0560 | -.17064 | .00000 | .00112 | .00098 | .00122 | .00219 | -.00002 | .00032 | .00007 |

RUN NO. 215/ 0 RML = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|-----------|-----------|---------|---------|--------|---------|---------|--------|--------|
| .902 | .065 | 5.40050 | 2138.1000 | 1261.6000 | 1.07710 | 1.22340 | .94070 | .99880 | .87950 | .85150 | .87280 |
| .901 | 4.273 | 5.42290 | 2136.7000 | 1261.6000 | 1.08450 | 1.22590 | .96450 | 1.02880 | .88360 | .85680 | .87340 |
| .899 | 6.402 | 5.42850 | 2137.3999 | 1264.3999 | 1.08810 | 1.22400 | .97060 | 1.03890 | .88350 | .85200 | .87870 |
| .904 | 8.530 | 5.43050 | 2136.7000 | 1259.1000 | 1.08450 | 1.22440 | .97990 | 1.04160 | .87570 | .84760 | .87960 |
| .900 | 10.678 | 5.41350 | 2137.3999 | 1263.7000 | 1.07160 | 1.21290 | .97850 | 1.04470 | .86830 | .83990 | .87570 |
| .902 | 12.809 | 5.42950 | 2138.1000 | 1260.8999 | 1.06380 | 1.20550 | .97740 | 1.05020 | .86240 | .84880 | .87300 |
| .903 | 14.946 | 5.43350 | 2135.2000 | 1258.1000 | 1.04880 | 1.19510 | .97520 | 1.05510 | .85940 | .83550 | .86140 |
| .897 | 17.094 | 5.45790 | 2138.1000 | 1268.0000 | 1.02570 | 1.17180 | .95820 | 1.05360 | .84040 | .82420 | .85440 |
| .902 | 21.337 | 5.47840 | 2138.1000 | 1260.8999 | .98220 | 1.13500 | .93960 | 1.04440 | .81300 | .78730 | .82660 |
| | GRADIENT | .03532 | -.33270 | .00000 | .00175 | .00083 | .00566 | .00713 | -.00097 | .00171 | .00129 |

RUN NO. 225/ 0 RML = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|-----------|-----------|---------|---------|---------|---------|---------|--------|--------|
| 1.137 | .077 | 5.39410 | 2017.8000 | 835.31000 | 1.32490 | 1.55140 | 1.13460 | 1.20550 | .65960 | .63420 | .63980 |
| 1.198 | 4.298 | 5.42780 | 2017.1000 | 833.92000 | 1.32640 | 1.54710 | 1.16760 | 1.23270 | .67290 | .63830 | .64750 |
| 1.191 | 6.603 | 5.42930 | 2018.5000 | 842.29000 | 1.30510 | 1.51520 | 1.15900 | 1.21190 | .67530 | .61930 | .62450 |
| 1.136 | 8.782 | 5.40960 | 2017.8000 | 836.02000 | 1.30040 | 1.51600 | 1.09650 | 1.19950 | .65030 | .62700 | .62760 |
| 1.135 | 12.933 | 5.42030 | 2019.3000 | 836.72000 | 1.28290 | 1.49750 | 1.06310 | 1.17980 | .65940 | .61020 | .62300 |
| 1.135 | 15.097 | 5.42360 | 2017.8000 | 837.41000 | 1.26060 | 1.48030 | 1.03810 | 1.17760 | .62000 | .60380 | .62010 |
| 1.200 | 17.255 | 5.47000 | 2018.5000 | 832.54000 | 1.24660 | 1.46870 | 1.02660 | 1.16980 | .65690 | .61330 | .61330 |
| 1.195 | 21.581 | 5.48910 | 2022.1000 | 838.13000 | 1.17650 | 1.40840 | .97010 | 1.16980 | .61980 | .55190 | .59730 |
| | GRADIENT | .00798 | -.16596 | -.32935 | .00036 | -.00102 | .00712 | .00644 | -.00078 | .00097 | .00182 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 5.000 ELEVON = .000
 AILRON = 7.500 BDFLAP = -7.170

PARAMETRIC DATA
 RUN NO. 216/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|---------|--------|
| 1.397 | .051 | 5.42770 | 2033.39999 | 641.44000 | 1.49910 | 1.75710 | 1.09300 | 1.25600 | .59780 | .58700 | .55790 |
| 1.400 | 4.247 | 5.43220 | 2034.10001 | 639.22000 | 1.52310 | 1.76080 | 1.10950 | 1.26760 | .60180 | .56230 | .55950 |
| 1.397 | 8.531 | 5.45630 | 2034.10001 | 641.43000 | 1.48070 | 1.73300 | 1.10240 | 1.26820 | .59610 | .54340 | .55810 |
| 1.397 | 10.703 | 5.42240 | 2036.20000 | 642.86000 | 1.46130 | 1.70990 | 1.09940 | 1.27150 | .59790 | .53860 | .56140 |
| 1.396 | 12.845 | 5.41860 | 2035.50000 | 643.61000 | 1.44340 | 1.68080 | 1.07830 | 1.26690 | .59400 | .52690 | .54100 |
| 1.398 | 14.997 | 5.44860 | 2036.89999 | 642.11000 | 1.41820 | 1.65940 | 1.05570 | 1.26710 | .59400 | .51740 | .52990 |
| 1.396 | 17.150 | 5.46660 | 2036.20000 | 643.60000 | 1.38730 | 1.65100 | 1.03260 | 1.28000 | .58570 | .48660 | .51350 |
| 1.398 | 21.481 | 5.49870 | 2039.10001 | 642.07000 | 1.35020 | 1.60490 | .97770 | 1.26550 | .57870 | .47940 | .51660 |
| | GRADIENT | .00107 | .16685 | -.52914 | .00238 | .00091 | .00353 | .00229 | .00095 | -.00517 | .00086 |

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -5.000 ELEVON = .000
 AILRON = 10.000 BDFLAP = -7.170

PARAMETRIC DATA

PARAMETRIC DATA
 RUN NO. 252/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|------------|---------|---------|---------|--------|--------|--------|---------|
| 1.596 | .147 | -4.93550 | 2616.89999 | 2058.29999 | 1.08380 | 1.00190 | 1.00280 | .95720 | .95300 | .94380 | .95170 |
| 1.597 | 4.211 | -4.91050 | 2618.29999 | 2059.29999 | 1.08960 | 1.00490 | 1.01060 | .96260 | .95370 | .94610 | .95760 |
| 1.597 | 8.375 | -4.89700 | 2619.70001 | 2058.29999 | 1.08660 | 1.00250 | 1.01290 | .96030 | .95370 | .94370 | .96710 |
| 1.597 | 10.484 | -4.88280 | 2619.70001 | 2058.29999 | 1.08280 | .99730 | 1.01050 | .96300 | .95290 | .94560 | .96690 |
| 1.597 | 12.595 | -4.85080 | 2619.70001 | 2059.00000 | 1.07610 | .99140 | 1.00950 | .96050 | .95170 | .94660 | .96280 |
| 1.596 | 14.690 | -4.84570 | 2619.70001 | 2059.70001 | 1.06840 | .98340 | 1.00800 | .95730 | .94830 | .94600 | .95780 |
| 1.597 | 16.780 | -4.85340 | 2619.70001 | 2059.00000 | 1.06020 | .97460 | 1.00330 | .95250 | .94490 | .94620 | .95690 |
| 1.597 | 21.025 | -4.88240 | 2619.70001 | 2058.29999 | 1.03650 | .95150 | .98190 | .93840 | .93750 | .93140 | .93960 |
| | GRADIENT | -.00123 | .34450 | .90000 | .00143 | .00074 | .00192 | .00118 | .00017 | .00057 | -.00101 |

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = 10.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SO-FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 251/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .900 | .111 | -4.92430 | 2116.89999 | 1250.89999 | 1.24510 | 1.04590 | 1.02620 | .90600 | .87780 | .85880 | .84060 |
| .899 | 4.275 | -4.93190 | 2115.89999 | 1252.39999 | 1.25030 | 1.05360 | 1.04980 | .92990 | .88010 | .86150 | .84300 |
| .899 | 6.398 | -4.92690 | 2116.89999 | 1252.39999 | 1.25650 | 1.06160 | 1.06110 | .94100 | .89020 | .87030 | .85170 |
| .900 | 8.513 | -4.92670 | 2117.60001 | 1251.60001 | 1.24670 | 1.04340 | 1.06930 | .94440 | .87670 | .85530 | .83930 |
| .900 | 10.645 | -4.91270 | 2116.89999 | 1250.89999 | 1.23960 | 1.03910 | 1.06790 | .95200 | .87250 | .85170 | .83550 |
| .900 | 12.761 | -4.91030 | 2116.89999 | 1252.39999 | 1.23010 | 1.02940 | 1.06760 | .95550 | .86540 | .83950 | .82200 |
| .900 | 14.899 | -4.91640 | 2116.89999 | 1250.89999 | 1.21770 | 1.01260 | 1.06760 | .95300 | .85360 | .83790 | .82100 |
| .900 | 17.037 | -4.92650 | 2116.89999 | 1250.89999 | 1.19920 | .99320 | 1.06510 | .94680 | .83400 | .81500 | .79800 |
| .901 | 21.323 | -4.92400 | 2118.29999 | 1251.60001 | 1.15590 | .94210 | 1.04300 | .92280 | .79310 | .78080 | .80850 |
| GRADIENT | | -.00183 | .00001 | .36025 | .00139 | .00185 | .00567 | .00574 | .00055 | .00065 | .00219 |

RUN NO. 241/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|---------|--------|--------|
| .980 | .126 | -4.94260 | 2065.20001 | 1116.30000 | 1.32960 | 1.10060 | 1.07820 | .93140 | .79620 | .75650 | .81040 |
| .981 | 4.298 | -4.94090 | 2063.79999 | 1114.89999 | 1.33630 | 1.10650 | 1.10650 | .96340 | .78670 | .75840 | .81150 |
| .983 | 6.572 | -4.94760 | 2055.89999 | 1113.50000 | 1.33510 | 1.09890 | 1.12480 | .98250 | .77300 | .74540 | .80800 |
| .979 | 10.715 | -4.93930 | 2054.50000 | 1117.80000 | 1.32050 | 1.08360 | 1.11950 | .99000 | .76910 | .73900 | .80920 |
| .980 | 12.860 | -4.93630 | 2065.20001 | 1117.10001 | 1.30920 | 1.07360 | 1.12050 | .99310 | .77290 | .74000 | .81100 |
| .978 | 15.014 | -4.94830 | 2064.50000 | 1118.50000 | 1.29210 | 1.05680 | 1.12460 | .98800 | .76840 | .72840 | .78810 |
| .960 | 17.167 | -4.92290 | 2067.39999 | 1117.80000 | 1.27520 | 1.03590 | 1.11840 | .98230 | .74290 | .71720 | .75210 |
| .981 | 21.472 | -4.94360 | 2065.20001 | 1115.60001 | 1.25100 | .98200 | 1.09810 | .96010 | .72020 | .68580 | .69820 |
| GRADIENT | | .00041 | -.33561 | -.33560 | .00209 | .00141 | .00678 | .00815 | -.00226 | .00046 | .00026 |

RUN NO. 240/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.098 | .113 | -4.93690 | 2003.70000 | 940.39000 | 1.49500 | 1.21110 | 1.19930 | 1.01310 | .71220 | .67850 | .71450 |
| 1.099 | 4.303 | -4.94030 | 2003.70000 | 939.68000 | 1.50210 | 1.21380 | 1.22950 | 1.04260 | .70770 | .67570 | .71240 |
| 1.102 | 6.579 | -4.91590 | 2005.80000 | 937.62000 | 1.48830 | 1.19670 | 1.24670 | 1.06770 | .69760 | .66350 | .69440 |
| 1.097 | 10.731 | -4.90570 | 2004.39999 | 941.79000 | 1.47180 | 1.18030 | 1.23970 | 1.07770 | .68690 | .65920 | .67250 |
| 1.098 | 12.883 | -4.90580 | 2005.10001 | 941.10000 | 1.45820 | 1.16150 | 1.23540 | 1.07210 | .68750 | .66570 | .66590 |
| 1.099 | 15.052 | -4.91610 | 2005.80000 | 941.10000 | 1.43750 | 1.13790 | 1.23420 | 1.06470 | .67860 | .64210 | .64260 |
| 1.100 | 17.218 | -4.92680 | 2005.10001 | 939.00000 | 1.41670 | 1.11290 | 1.22140 | 1.06480 | .67200 | .62740 | .63290 |
| 1.100 | 21.539 | -4.94350 | 2005.10001 | 939.70000 | 1.36830 | 1.04730 | 1.17760 | 1.03740 | .65710 | .60650 | .60440 |
| GRADIENT | | -.00048 | .00000 | -.16946 | .00169 | .00064 | .00721 | .00704 | -.00107 | -.00067 | -.00050 |

(AE7R33) (02 AUG 76)

ARC 11-97-87-094 OA161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .008
 AILTRON = 10.000 BDFLAP = -7.170

RUN NO. 231/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.399 | .110 | -4.96370 | 2008.60001 | 828.99000 | 1.60510 | 1.25730 | 1.27990 | 1.05870 | .67810 | .64660 | .69470 |
| 1.197 | 4.282 | -4.96040 | 2005.80000 | 830.35000 | 1.60310 | 1.24880 | 1.29980 | 1.09000 | .67390 | .65030 | .68560 |
| 1.199 | 8.562 | -4.93370 | 2007.20000 | 829.68000 | 1.58920 | 1.22830 | 1.30510 | 1.05090 | .66300 | .64140 | .65600 |
| 1.199 | 10.721 | -4.93290 | 2010.10001 | 831.09000 | 1.58000 | 1.21530 | 1.28580 | 1.01890 | .64890 | .63330 | .61700 |
| 1.197 | 12.881 | -4.91530 | 2009.39999 | 831.78000 | 1.56220 | 1.19650 | 1.26360 | 1.00270 | .64520 | .60620 | .59120 |
| 1.196 | 15.057 | -4.91290 | 2010.10001 | 833.18000 | 1.53960 | 1.16940 | 1.24840 | .98460 | .62910 | .57340 | .57700 |
| 1.196 | 17.216 | -4.93760 | 2007.69999 | 832.47000 | 1.52420 | 1.14770 | 1.22970 | .97480 | .62060 | .56660 | .56700 |
| 1.196 | 21.538 | -4.95700 | 2009.39999 | 832.47000 | 1.47240 | 1.09630 | 1.19160 | .94890 | .62600 | .57010 | .56940 |
| | GRADIENT | .00079 | -.67105 | .32834 | -.00048 | -.00204 | .00477 | .00750 | -.00101 | .00089 | -.00218 |

RUN NO. 230/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|--------|
| 1.399 | .073 | -4.98360 | 2057.39999 | 648.35000 | 1.85560 | 1.40100 | 1.33780 | 1.02340 | .59070 | .56490 | .55690 |
| 1.399 | 4.231 | -4.97090 | 2056.70001 | 645.89000 | 1.85830 | 1.38540 | 1.34400 | 1.03440 | .59580 | .57850 | .57600 |
| 1.396 | 8.495 | -4.94530 | 2058.20001 | 650.55000 | 1.83510 | 1.34680 | 1.34680 | 1.03100 | .59130 | .56180 | .55060 |
| 1.396 | 10.645 | -4.93720 | 2057.39999 | 650.56000 | 1.82240 | 1.32660 | 1.33200 | 1.03380 | .58970 | .56350 | .54700 |
| 1.397 | 12.794 | -4.92180 | 2058.20001 | 649.81000 | 1.80620 | 1.30520 | 1.32890 | 1.02650 | .58520 | .53150 | .52440 |
| 1.397 | 14.958 | -4.91220 | 2058.20001 | 649.81000 | 1.78660 | 1.28470 | 1.32780 | 1.01780 | .57450 | .51180 | .50990 |
| 1.396 | 17.119 | -4.94220 | 2058.20001 | 650.55000 | 1.75900 | 1.26410 | 1.31830 | 1.00840 | .57240 | .50290 | .49960 |
| 1.396 | 21.463 | -4.94870 | 2059.60001 | 650.52000 | 1.70280 | 1.21250 | 1.29880 | .97300 | .57680 | .53980 | .48990 |
| | GRADIENT | .00305 | -.16834 | -.35113 | .00065 | -.00375 | .00149 | .00265 | -.00123 | .00327 | .00459 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)

(AETR34) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SPEC = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LPEF = 474.8000 IN. YMRP = .0000 IN. YO
 BPEF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AIRLON = 10.000 BDFLAP = -7.170

RUN NO. 253/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .597 | .089 | -1.81290 | 2619.00000 | 2957.60001 | 1.06310 | 1.02408 | .99010 | .96690 | .95450 | .94570 | .93680 |
| .597 | 4.193 | -1.81610 | 2613.29999 | 2056.79999 | 1.06780 | 1.02640 | .99570 | .97330 | .95430 | .94510 | .93870 |
| .595 | 8.349 | -1.81500 | 2619.00000 | 2053.70001 | 1.06340 | 1.02210 | .99810 | .97510 | .95200 | .94490 | .93820 |
| .597 | 10.460 | -1.80880 | 2619.00000 | 2057.60001 | 1.06180 | 1.02090 | .99750 | .97270 | .95370 | .94670 | .94080 |
| .597 | 12.586 | -1.79610 | 2619.00000 | 2057.60001 | 1.05586 | 1.01390 | .99670 | .97410 | .95350 | .94720 | .94140 |
| .592 | 14.664 | -1.77960 | 2619.00000 | 2056.79999 | 1.04740 | 1.00760 | .99390 | .97190 | .95440 | .94840 | .94300 |
| .599 | 16.799 | -1.83660 | 2619.00000 | 2056.10001 | 1.03970 | .99720 | .99110 | .96710 | .94610 | .94440 | .94150 |
| .595 | 21.071 | -1.83110 | 2619.70001 | 2060.39999 | 1.01200 | .97310 | .95310 | .93520 | .92880 | .93070 | .93070 |
| GRADIENT | | -.00078 | -.17064 | -.19503 | .00115 | .00059 | .00137 | .00156 | -.00005 | -.00015 | .00071 |

RUN NO. 250/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .901 | .084 | -1.85760 | 2116.89999 | 1250.20000 | 1.19500 | 1.09848 | .99683 | .93000 | .88180 | .86240 | .87740 |
| .901 | 4.247 | -1.83190 | 2116.20001 | 1250.20000 | 1.20050 | 1.10330 | 1.02200 | .95700 | .88740 | .86290 | .86400 |
| .899 | 6.359 | -1.82800 | 2116.89999 | 1252.39999 | 1.20610 | 1.10160 | 1.02870 | .96700 | .88510 | .86450 | .86410 |
| .899 | 8.498 | -1.83480 | 2116.89999 | 1252.39999 | 1.19930 | 1.09700 | 1.03690 | .97140 | .88250 | .86120 | .86820 |
| .900 | 10.622 | -1.82270 | 2117.60001 | 1251.60001 | 1.19050 | 1.08940 | 1.03750 | .97490 | .87710 | .85450 | .86790 |
| .900 | 12.750 | -1.81250 | 2117.60001 | 1251.60001 | 1.18250 | 1.07970 | 1.04130 | .98330 | .88490 | .84750 | .86210 |
| .900 | 14.871 | -1.82510 | 2117.60001 | 1252.39999 | 1.16450 | 1.06320 | 1.03850 | .98090 | .88100 | .83590 | .86610 |
| .900 | 17.056 | -1.88300 | 2117.60001 | 1252.39999 | 1.15010 | 1.04750 | 1.03370 | .97780 | .88320 | .83950 | .85340 |
| .900 | 21.349 | -1.85710 | 2115.39999 | 1250.89999 | 1.10670 | 1.00050 | 1.01220 | .96010 | .86650 | .78640 | .84510 |
| GRADIENT | | .00617 | -.16813 | -.00001 | .00132 | .00118 | .00605 | .00649 | .00135 | .00252 | .00159 |

RUN NO. 242/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|---------|---------|--------|---------|
| .980 | .062 | -1.82550 | 2065.89999 | 1116.30000 | 1.27250 | 1.16000 | 1.04410 | .96350 | .79170 | .76590 | .81350 |
| .979 | 4.275 | -1.83230 | 2063.79999 | 1117.10001 | 1.27810 | 1.16320 | 1.07130 | .99200 | .78790 | .76910 | .81270 |
| .980 | 8.553 | -1.81140 | 2063.10001 | 1115.60001 | 1.27310 | 1.15700 | 1.08950 | 1.01100 | .78730 | .75990 | .80350 |
| .979 | 10.710 | -1.79450 | 2063.10001 | 1116.39999 | 1.26430 | 1.14630 | 1.08740 | 1.01340 | .78750 | .74660 | .78760 |
| .980 | 12.849 | -1.79250 | 2063.79999 | 1119.20000 | 1.24910 | 1.13180 | 1.08890 | 1.02280 | .76780 | .73780 | .78250 |
| .979 | 14.989 | -1.82140 | 2068.79999 | 1119.89999 | 1.23450 | 1.11420 | 1.08930 | 1.02110 | .74910 | .71990 | .74420 |
| .977 | 17.163 | -1.87680 | 2063.79999 | 1119.20000 | 1.21570 | 1.09370 | 1.07920 | 1.01350 | .73590 | .70690 | .73170 |
| .982 | 21.435 | -1.87580 | 2065.99999 | 1114.89999 | 1.17460 | 1.04310 | 1.05820 | .99560 | .71800 | .68960 | .69020 |
| GRADIENT | | -.00159 | -.49833 | .18986 | .00157 | .00076 | .00646 | .00676 | -.00090 | .00076 | -.00019 |

ORIGINAL PAGE IS
OF POOR QUALITY

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = 10.000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.099 | .085 | -1.85780 | 2005.70000 | 939.68000 | 1.42650 | 1.28580 | 1.15810 | 1.04720 | .71920 | .68980 | .71690 |
| 1.099 | 4.276 | -1.84350 | 2604.39999 | 940.39000 | 1.43050 | 1.28660 | 1.19040 | 1.08050 | .71450 | .68890 | .70630 |
| 1.098 | 8.564 | -1.82420 | 2805.10000 | 941.10000 | 1.41640 | 1.27600 | 1.20350 | 1.10310 | .70550 | .67880 | .69340 |
| 1.097 | 10.729 | -1.80080 | 2803.70000 | 941.78000 | 1.40540 | 1.25760 | 1.20020 | 1.10720 | .70020 | .68550 | .68300 |
| 1.098 | 12.890 | -1.78440 | 2005.10001 | 941.10000 | 1.38760 | 1.23760 | 1.20350 | 1.11460 | .69470 | .66370 | .67130 |
| 1.098 | 15.032 | -1.84230 | 2003.70000 | 942.49000 | 1.36520 | 1.21350 | 1.19080 | 1.10410 | .67950 | .64290 | .64170 |
| 1.097 | 17.257 | -1.89150 | 2005.80000 | 942.50000 | 1.34520 | 1.18600 | 1.17460 | 1.08820 | .66950 | .62290 | .62980 |
| 1.099 | 21.575 | -1.86500 | 2003.00000 | 939.68000 | 1.29010 | 1.12740 | 1.12540 | 1.08440 | .65750 | .62380 | .59540 |
| | GRADIENT | .00341 | .16704 | .16943 | .00095 | .00067 | .00771 | .00795 | -.00112 | -.00021 | -.00253 |

RUN NO. 232/ 0 RV/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.199 | .052 | -1.82850 | 2007.89999 | 828.99000 | 1.51800 | 1.33950 | 1.23080 | 1.08630 | .67250 | .64180 | .68040 |
| 1.200 | 4.260 | -1.83550 | 2007.89999 | 828.29000 | 1.52620 | 1.33510 | 1.23440 | 1.11070 | .67130 | .64380 | .66720 |
| 1.196 | 8.550 | -1.81830 | 2009.39999 | 832.47000 | 1.50740 | 1.31530 | 1.23440 | 1.09430 | .66350 | .63310 | .63870 |
| 1.198 | 10.720 | -1.81500 | 2008.60001 | 830.38000 | 1.49770 | 1.30330 | 1.23230 | 1.05880 | .66210 | .63230 | .63640 |
| 1.195 | 12.874 | -1.80340 | 2007.89999 | 833.86000 | 1.47600 | 1.28920 | 1.20000 | 1.04870 | .64440 | .62630 | .60840 |
| 1.200 | 15.023 | -1.84110 | 2008.60001 | 828.30000 | 1.46700 | 1.26750 | 1.19350 | 1.04350 | .63460 | .60480 | .56110 |
| 1.193 | 17.240 | -1.89720 | 2007.89999 | 835.25000 | 1.43350 | 1.22850 | 1.16460 | 1.02950 | .61890 | .55750 | .56620 |
| 1.199 | 21.576 | -1.86320 | 2011.50000 | 830.40000 | 1.38230 | 1.17440 | 1.12650 | 1.00950 | .62130 | .62130 | .54900 |
| | GRADIENT | -.00169 | -.00001 | -.16631 | .00100 | -.00405 | .00537 | .00580 | -.00029 | .00048 | -.00314 |

RUN NO. 2294/ 0 RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.400 | .046 | -1.85730 | 2850.39999 | 644.07000 | 1.74250 | 1.49550 | 1.25200 | 1.09030 | .60130 | .58420 | .58740 |
| 1.399 | 4.213 | -1.91110 | 2048.29999 | 644.84000 | 1.73680 | 1.47390 | 1.26360 | 1.08750 | .59770 | .57970 | .59190 |
| 1.399 | 8.482 | -1.82430 | 2050.39999 | 646.28000 | 1.71780 | 1.44300 | 1.26300 | 1.09030 | .59990 | .55990 | .57950 |
| 1.398 | 10.639 | -1.83030 | 2048.29999 | 645.58000 | 1.70530 | 1.42260 | 1.24510 | 1.09250 | .59770 | .57340 | .56880 |
| 1.399 | 12.783 | -1.81370 | 2047.50000 | 644.12000 | 1.69090 | 1.40359 | 1.25020 | 1.09030 | .58620 | .57690 | .54640 |
| 1.399 | 14.927 | -1.85730 | 2048.29999 | 644.84000 | 1.66990 | 1.37970 | 1.24250 | 1.08420 | .57390 | .52670 | .52400 |
| 1.400 | 17.142 | -1.91710 | 2047.50000 | 643.38000 | 1.64730 | 1.36540 | 1.22960 | 1.08410 | .57110 | .51160 | .56840 |
| 1.399 | 21.489 | -1.87730 | 2048.00000 | 644.83000 | 1.58420 | 1.32030 | 1.19890 | 1.05850 | .57550 | .54870 | .46680 |
| | GRADIENT | -.01051 | -.50400 | .18481 | -.00137 | -.00521 | .08263 | -.00067 | -.00086 | -.00132 | -.00108 |

(AETR35) (02 AUG 76)

TABLATED DATA - 0A16L (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A16L ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .090
AILRON = 10.000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 254/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|--------|--------|--------|--------|
| .597 | .082 | 23530 | 2619.29999 | 2057.60001 | 1.04780 | 1.03760 | .97320 | .95340 | .94460 | .93490 |
| .597 | 4.188 | 23530 | 2619.29999 | 2058.29999 | 1.04010 | 1.04010 | .98000 | .95380 | .94610 | .93630 |
| .597 | 8.258 | 24210 | 2619.00000 | 2059.00000 | 1.05328 | 1.03990 | .98260 | .95240 | .94590 | .93540 |
| .597 | 8.348 | 24650 | 2619.00000 | 2057.60001 | 1.04910 | 1.03830 | .98240 | .95360 | .94630 | .93620 |
| .597 | 10.448 | 24250 | 2619.00000 | 2059.00000 | 1.04470 | 1.03420 | .98410 | .95360 | .94710 | .93750 |
| .597 | 12.548 | 24140 | 2619.00000 | 2057.60001 | 1.03970 | 1.02990 | .98070 | .95270 | .94700 | .93590 |
| .598 | 14.637 | 25290 | 2619.70001 | 2056.79999 | 1.03440 | 1.02170 | .98170 | .95210 | .94520 | .93400 |
| .597 | 16.771 | 24320 | 2619.70001 | 2059.00000 | 1.02350 | 1.01260 | .97520 | .94660 | .94330 | .93410 |
| .598 | 21.022 | 23290 | 2619.70001 | 2056.79999 | .99910 | .99080 | .96530 | .93650 | .94440 | .93410 |
| .597 | 25.180 | 23560 | 2619.70001 | 2058.29999 | .96660 | .96810 | .94800 | .92100 | .94800 | .91750 |
| GRADIENT | | .00058 | .00001 | .17051 | .00083 | .08061 | .00166 | .08010 | .00037 | .00034 |

RUN NO. 249/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.08/ 5.00

| MACH | ALPHA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|--------|--------|--------|--------|
| .900 | .040 | 21650 | 2116.89999 | 1250.89999 | 1.13190 | .97530 | .94780 | .88010 | .86380 | .87800 |
| .900 | 4.252 | 24140 | 2116.89999 | 1250.89999 | 1.13930 | 1.00340 | .97620 | .88370 | .86710 | .88900 |
| .900 | 6.361 | 23800 | 2117.60001 | 1252.39999 | 1.17350 | 1.00990 | .98530 | .88430 | .86830 | .88060 |
| .900 | 8.488 | 23560 | 2117.60001 | 1252.39999 | 1.16370 | 1.01670 | .99530 | .87220 | .85490 | .87460 |
| .901 | 10.630 | 24210 | 2117.60001 | 1251.89999 | 1.15670 | 1.01628 | .99530 | .87890 | .86130 | .88730 |
| .900 | 12.745 | 23900 | 2117.60001 | 1251.60001 | 1.14370 | 1.02310 | .99850 | .86360 | .84730 | .87240 |
| .899 | 14.882 | 25030 | 2117.60001 | 1253.10001 | 1.10038 | 1.00190 | .99820 | .85360 | .84200 | .86660 |
| .900 | 17.020 | 24520 | 2117.60001 | 1252.89999 | 1.08410 | 1.01690 | .99820 | .83860 | .82920 | .85950 |
| .900 | 21.292 | 23020 | 2115.39999 | 1250.89999 | 1.01140 | 1.01140 | .98160 | .79840 | .78800 | .82250 |
| .899 | 25.458 | 21520 | 2115.39999 | 1252.39999 | 1.06760 | 1.03860 | .95040 | .75390 | .71810 | .75550 |
| GRADIENT | | .00544 | .00000 | .00221 | .00176 | .08637 | .00674 | .00085 | .00078 | .00119 |

RUN NO. 243/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|---------|--------|--------|--------|
| .980 | .052 | 23560 | 2062.39999 | 1115.60001 | 1.19980 | 1.02230 | .98270 | .79530 | .76540 | .80030 |
| .980 | 4.278 | 22810 | 2064.90000 | 1117.10001 | 1.24008 | 1.02340 | 1.01240 | .79078 | .77440 | .80120 |
| .980 | 6.404 | 23920 | 2064.50000 | 1116.39999 | 1.24570 | 1.06030 | 1.02660 | .79580 | .77410 | .79830 |
| .978 | 8.558 | 24190 | 2063.10001 | 1117.80000 | 1.19330 | 1.06370 | 1.02940 | .78660 | .76660 | .79110 |
| .978 | 10.719 | 24190 | 2063.10001 | 1117.80000 | 1.18440 | 1.06310 | 1.03250 | .77450 | .74200 | .77530 |
| .980 | 12.857 | 22600 | 2064.50000 | 1116.39999 | 1.17250 | 1.05930 | 1.03970 | .76480 | .72620 | .77380 |
| .975 | 15.008 | 22660 | 2063.79999 | 1120.70000 | 1.15500 | 1.05120 | 1.04050 | .75480 | .72290 | .75480 |
| .980 | 17.168 | 23200 | 2063.79999 | 1116.39999 | 1.13980 | 1.05370 | 1.03920 | .73640 | .70680 | .73360 |
| .979 | 21.446 | 21030 | 2065.20001 | 1117.80000 | 1.08780 | 1.02910 | 1.01890 | .71560 | .68650 | .69280 |
| .979 | 25.621 | 19000 | 2065.20001 | 1117.80000 | .99120 | .99120 | .98190 | .67960 | .64540 | .61150 |
| GRADIENT | | .00177 | .49688 | .00194 | .00663 | .00663 | .00703 | .00109 | .00142 | .00024 |

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVOM = .000
 AIRLON = 10.0000 BDFLAP = -7.170

RUN NO. 238/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.038 | .048 | .22030 | 2003.70000 | 940.39000 | 1.37840 | 1.33180 | 1.13470 | 1.07690 | .71730 | .68920 | .70500 |
| 1.039 | 4.278 | .22620 | 2004.10001 | 940.40000 | 1.38030 | 1.33400 | 1.16330 | 1.10530 | .71530 | .69200 | .69990 |
| 1.039 | 6.408 | .23350 | 2004.39999 | 942.49000 | 1.38420 | 1.32710 | 1.17360 | 1.12600 | .71250 | .68950 | .68760 |
| 1.039 | 8.569 | .24950 | 2005.10001 | 940.40000 | 1.36860 | 1.31990 | 1.17840 | 1.12760 | .71390 | .68770 | .69740 |
| 1.039 | 10.730 | .24670 | 2003.70000 | 941.09000 | 1.35760 | 1.30630 | 1.17760 | 1.13470 | .70820 | .67970 | .69820 |
| 1.039 | 12.883 | .24110 | 2005.80000 | 942.50000 | 1.33960 | 1.28660 | 1.17420 | 1.13180 | .69760 | .66350 | .67240 |
| 1.039 | 15.061 | .24310 | 2005.10001 | 940.40000 | 1.32180 | 1.27160 | 1.16540 | 1.13750 | .68900 | .65150 | .65100 |
| 1.039 | 17.232 | .23650 | 2004.39999 | 942.49000 | 1.29750 | 1.24270 | 1.14980 | 1.12110 | .68000 | .63350 | .63100 |
| 1.039 | 21.523 | .22730 | 2003.70000 | 940.39000 | 1.29900 | 1.18660 | 1.09340 | 1.03000 | .65970 | .61440 | .59050 |
| 1.039 | 25.732 | .22800 | 2003.70000 | 935.68000 | 1.17550 | 1.12680 | 1.03490 | 1.01540 | .63820 | .61390 | .58220 |
| | GRADIENT | .00140 | .33103 | .00237 | .00092 | .00052 | .00676 | .00672 | -.00047 | .00066 | -.00121 |

RUN NO. 233/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.199 | .047 | .22580 | 2007.89999 | 829.68000 | 1.45950 | 1.40070 | 1.20270 | 1.12020 | .84550 | .84550 | .84550 |
| 1.200 | 4.265 | .23500 | 2007.20000 | 827.59000 | 1.46510 | 1.39290 | 1.22380 | 1.12960 | .84690 | .84690 | .84690 |
| 1.200 | 6.408 | .24050 | 2006.50000 | 826.69000 | 1.47210 | 1.38900 | 1.23060 | 1.13830 | .84810 | .84810 | .84810 |
| 1.199 | 8.563 | .24350 | 2007.20000 | 835.95000 | 1.43980 | 1.36710 | 1.22110 | 1.12190 | .84660 | .84660 | .84660 |
| 1.197 | 10.734 | .24330 | 2009.39999 | 831.07000 | 1.43730 | 1.36230 | 1.19630 | 1.09370 | .84670 | .84670 | .84670 |
| 1.197 | 12.890 | .24030 | 2007.89999 | 831.07000 | 1.42100 | 1.34600 | 1.16110 | 1.08480 | .84530 | .84530 | .84530 |
| 1.196 | 15.051 | .24250 | 2009.39999 | 833.17000 | 1.39910 | 1.32070 | 1.14440 | 1.07550 | .84420 | .84420 | .84420 |
| 1.198 | 17.219 | .23730 | 2008.60001 | 830.38000 | 1.37970 | 1.30070 | 1.12680 | 1.07150 | .84390 | .84390 | .84390 |
| 1.199 | 21.521 | .22380 | 2011.50000 | 831.10000 | 1.31870 | 1.24140 | 1.07570 | 1.05070 | .84120 | .84120 | .84120 |
| 1.199 | 25.740 | .22720 | 2007.89999 | 828.99000 | 1.25420 | 1.19340 | 1.02490 | 1.03430 | .83980 | .83980 | .83980 |
| | GRADIENT | .00218 | -.16594 | -.49547 | .00133 | -.00185 | .00500 | .00223 | -.00175 | -.00154 | -.00220 |

RUN NO. 228/ 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.402 | .038 | .21020 | 2028.50000 | 635.64000 | 1.67350 | 1.56670 | 1.20120 | 1.12950 | .59690 | .57890 | .59210 |
| 1.403 | 4.208 | .20670 | 2028.50000 | 637.11000 | 1.66910 | 1.56250 | 1.21590 | 1.13210 | .60190 | .58210 | .58910 |
| 1.399 | 6.327 | .22050 | 2028.50000 | 638.59000 | 1.67260 | 1.53530 | 1.21820 | 1.13300 | .60090 | .57250 | .57730 |
| 1.397 | 8.485 | .23980 | 2029.20000 | 640.78000 | 1.63870 | 1.51480 | 1.21170 | 1.13160 | .60140 | .56640 | .56750 |
| 1.395 | 10.643 | .23370 | 2029.20000 | 641.52000 | 1.62470 | 1.49930 | 1.19430 | 1.12900 | .60050 | .56220 | .56720 |
| 1.397 | 12.782 | .21750 | 2029.20000 | 640.78000 | 1.60880 | 1.48000 | 1.19930 | 1.13810 | .59200 | .56620 | .54510 |
| 1.399 | 14.942 | .20670 | 2029.20000 | 638.57000 | 1.59310 | 1.45960 | 1.18430 | 1.13530 | .58620 | .54240 | .52820 |
| 1.399 | 17.106 | .24670 | 2028.20000 | 638.57000 | 1.56750 | 1.44370 | 1.16870 | 1.13070 | .57990 | .54940 | .51720 |
| 1.395 | 21.419 | .23980 | 2030.80001 | 642.96000 | 1.50330 | 1.36890 | 1.12230 | 1.11000 | .56990 | .54940 | .47570 |
| 1.400 | 25.672 | .25370 | 2029.20000 | 637.83000 | 1.44750 | 1.34670 | 1.09980 | 1.07840 | .55610 | .47930 | .45720 |
| | GRADIENT | -.00083 | .00000 | .35001 | -.00105 | -.00338 | .00350 | .00062 | -.00119 | .00076 | -.00071 |

TABULATED DATA - 0A161 (ARC 11-97-87-89*)
ARC 11-97-87-89* 0A161 ORBITER

(AE7R35) (02 AUG 75)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRON = 10.000 BDFLAP = -7.170

REFERENCE DATA

MACH = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 255 / 0 RN/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|--------|--------|--------|--------|--------|
| .597 | .095 | 2.28910 | 2618.29999 | 2056.29999 | 1.05170 | .97260 | .98070 | .95200 | .94490 | .95370 |
| .597 | 4.196 | 2.33120 | 2618.29999 | 2056.29999 | 1.03740 | .98630 | .98970 | .95210 | .94440 | .95750 |
| .596 | 8.366 | 2.37230 | 2618.29999 | 2056.70001 | 1.05310 | .98240 | .99030 | .95120 | .94520 | .95740 |
| .599 | 10.472 | 2.35710 | 2595.07000 | 2035.60001 | 1.05020 | .97860 | .99290 | .95250 | .94450 | .95790 |
| .597 | 12.621 | 2.34840 | 2592.89999 | 2038.39999 | 1.02430 | .97790 | .99000 | .95250 | .94440 | .95650 |
| .597 | 14.762 | 2.33270 | 2595.60001 | 2042.00000 | 1.01490 | .97260 | .98760 | .94390 | .94250 | .95390 |
| .597 | 16.905 | 2.32700 | 2594.29999 | 2039.10001 | 1.00710 | .96820 | .98430 | .94360 | .94362 | .95080 |
| .598 | 21.115 | 2.31440 | 2595.00000 | 2037.70000 | .98310 | .95230 | .97440 | .94430 | .94430 | .93230 |
| | GRADIENT | .01027 | .00000 | .00122 | .00115 | .00183 | .00219 | .00002 | .00012 | .00093 |

RUN NO. 247 / 0 RN/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|--------|--------|--------|
| .898 | .030 | 2.31610 | 2113.29999 | 1251.70000 | 1.12260 | .95600 | .96640 | .87990 | .86090 | .87840 |
| .898 | 4.248 | 2.33610 | 2113.29999 | 1251.70000 | 1.13090 | .98440 | .93500 | .88520 | .86480 | .87670 |
| .897 | 6.379 | 2.33680 | 2114.00000 | 1253.89999 | 1.13760 | .99440 | 1.00430 | .88160 | .86600 | .88280 |
| .896 | 8.499 | 2.33340 | 2113.29999 | 1255.30000 | 1.12780 | .99570 | 1.00580 | .88020 | .86300 | .88240 |
| .897 | 10.635 | 2.33560 | 2114.00000 | 1253.89999 | 1.11940 | .99940 | 1.01930 | .87590 | .85990 | .87810 |
| .900 | 12.808 | 2.32330 | 2114.00000 | 1250.20000 | 1.11040 | 1.00240 | 1.01640 | .86260 | .85110 | .86460 |
| .898 | 14.963 | 2.35370 | 2113.29999 | 1253.10001 | 1.13480 | .99500 | 1.02320 | .85480 | .84070 | .85890 |
| .897 | 17.138 | 2.35010 | 2113.29999 | 1253.10001 | 1.11820 | .98960 | 1.01820 | .83830 | .82250 | .83260 |
| .902 | 21.397 | 2.32550 | 2115.39999 | 1248.10001 | 1.07320 | .96450 | 1.00260 | .79060 | .77590 | .81280 |
| | GRADIENT | .00332 | .00000 | .00197 | .00166 | .00673 | .00678 | .00126 | .00092 | .00040 |

RUN NO. 244 / 0 RN/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|--------|--------|--------|
| .980 | .062 | 2.30100 | 2065.20001 | 1117.10001 | 1.19230 | 1.00280 | 1.00470 | .78680 | .75850 | .76560 |
| .978 | 4.293 | 2.34190 | 2064.50000 | 1118.50001 | 1.24430 | 1.03620 | 1.00750 | .79250 | .77150 | .80890 |
| .983 | 8.576 | 2.34320 | 2066.60001 | 1117.80000 | 1.04600 | 1.04600 | 1.05990 | .75350 | .74500 | .78450 |
| .977 | 10.733 | 2.33640 | 2062.39999 | 1119.20000 | 1.23650 | 1.04600 | 1.05950 | .77100 | .75180 | .78560 |
| .976 | 12.901 | 2.31000 | 2065.20001 | 1119.20000 | 1.04420 | 1.04420 | 1.05780 | .75650 | .75580 | .76670 |
| .976 | 15.066 | 2.34640 | 2065.20001 | 1118.50000 | 1.21130 | 1.04420 | 1.05780 | .76140 | .75220 | .78410 |
| .979 | 17.270 | 2.36270 | 2063.10001 | 1117.10001 | 1.19720 | 1.03910 | 1.05880 | .76140 | .74530 | .74530 |
| .979 | 21.527 | 2.32820 | 2063.79999 | 1117.10001 | 1.13860 | 1.00530 | 1.04520 | .71680 | .71680 | .70080 |
| | GRADIENT | .00959 | .16581 | .00147 | .00636 | .00636 | .00746 | .00135 | .00308 | .00554 |

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER.

(AE7R58) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0360

PARAMETRIC DATA

BETA = 2.000 ELEVOM = .000
AHLROM = 10.000 BDFLAP = -7.170

RUN NO. 237/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|--------|--------|--------|--------|
| 1.097 | .045 | 2.32820 | 2003.00000 | 941.78000 | 1.38130 | 1.11298 | 1.10620 | .71540 | .68650 | .68698 | .68698 |
| 1.098 | 4.263 | 2.31060 | 2003.70000 | 939.68000 | 1.38298 | 1.14240 | 1.13970 | .71270 | .69600 | .69550 | .69550 |
| 1.098 | 8.585 | 2.33010 | 2003.00000 | 940.38000 | 1.37990 | 1.15868 | 1.15860 | .70880 | .69080 | .69110 | .69110 |
| 1.099 | 10.754 | 2.32550 | 2005.10001 | 940.40000 | 1.30740 | 1.16110 | 1.15960 | .70530 | .67590 | .67590 | .67590 |
| 1.099 | 12.926 | 2.31480 | 2005.80000 | 941.10000 | 1.34170 | 1.13250 | 1.16100 | .69750 | .66790 | .66790 | .66790 |
| 1.099 | 15.117 | 2.36570 | 2004.39999 | 943.89000 | 1.26740 | 1.13270 | 1.16850 | .69260 | .64710 | .64710 | .64710 |
| 1.097 | 17.338 | 2.38160 | 2004.39999 | 941.79000 | 1.24450 | 1.12150 | 1.15090 | .68520 | .63030 | .63030 | .63030 |
| 1.100 | 21.622 | 2.34450 | 2005.10001 | 939.70000 | 1.18630 | 1.05620 | 1.07150 | .65540 | .57810 | .57810 | .57810 |
| GRADIENT | | -.00415 | .16516 | -.49550 | .00109 | .00696 | .00798 | .00064 | .00012 | .00012 | .00012 |

RUN NO. 234/ 0 RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.198 | .060 | 2.30060 | 2008.60001 | 830.38000 | 1.40380 | 1.45760 | 1.16880 | 1.15410 | .67070 | .64220 | .64650 |
| 1.198 | 4.270 | 2.32910 | 2007.20000 | 829.68000 | 1.40570 | 1.45370 | 1.19710 | 1.16330 | .68490 | .63420 | .63910 |
| 1.195 | 8.588 | 2.34410 | 2008.60001 | 829.68000 | 1.38900 | 1.43900 | 1.19910 | 1.15720 | .66450 | .62840 | .63340 |
| 1.195 | 10.751 | 2.33970 | 2008.60001 | 833.47000 | 1.37860 | 1.42370 | 1.15050 | 1.13410 | .66190 | .62010 | .62710 |
| 1.196 | 12.933 | 2.31970 | 2008.60001 | 833.17000 | 1.36320 | 1.40660 | 1.12250 | 1.12498 | .65760 | .60230 | .61860 |
| 1.196 | 15.106 | 2.37410 | 2008.60001 | 833.17000 | 1.34340 | 1.38360 | 1.09768 | 1.12440 | .64350 | .58260 | .60310 |
| 1.197 | 17.328 | 2.38290 | 2008.60001 | 831.77000 | 1.32110 | 1.36590 | 1.08330 | 1.12320 | .63980 | .59398 | .58470 |
| 1.200 | 21.612 | 2.35270 | 2010.10001 | 829.00000 | 1.28498 | 1.31280 | 1.03640 | 1.10500 | .63770 | .55690 | .57660 |
| GRADIENT | | .00677 | -.33253 | -.16627 | .00064 | .00093 | .00663 | .00138 | .00190 | .00190 | .00176 |

RUN NO. 227/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|
| 1.402 | .010 | 2.30820 | 2028.50000 | 635.64000 | 1.60880 | 1.63980 | 1.15070 | 1.18120 | .59330 | .57730 | .57380 |
| 1.401 | 4.214 | 2.32120 | 2027.70000 | 636.39000 | 1.60258 | 1.63320 | 1.17620 | 1.18210 | .59610 | .57340 | .55990 |
| 1.397 | 8.508 | 2.33320 | 2027.70000 | 643.67000 | 1.57810 | 1.59890 | 1.16870 | 1.18480 | .59300 | .56090 | .55990 |
| 1.396 | 10.663 | 2.33210 | 2029.20000 | 641.52000 | 1.55810 | 1.57700 | 1.14840 | 1.19600 | .58720 | .56360 | .54490 |
| 1.397 | 12.833 | 2.32800 | 2028.50000 | 641.06000 | 1.54230 | 1.56110 | 1.15200 | 1.18650 | .58480 | .56500 | .53480 |
| 1.398 | 15.008 | 2.35150 | 2028.20000 | 639.31000 | 1.52710 | 1.54330 | 1.13010 | 1.19770 | .58640 | .52760 | .52310 |
| 1.400 | 17.223 | 2.37950 | 2028.50000 | 637.11000 | 1.49740 | 1.52550 | 1.10910 | 1.19560 | .58520 | .52900 | .50898 |
| 1.387 | 21.517 | 2.34990 | 2031.30000 | 641.48000 | 1.43488 | 1.47480 | 1.06240 | 1.16888 | .57480 | .52220 | .49340 |
| GRADIENT | | .00309 | -.19825 | .17837 | .00048 | .00158 | .00636 | .00921 | .00067 | .00067 | .00312 |

(AE7R37) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AIRLON = 10.000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 478.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 256/ 0 RNL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .598 | .108 | 5.38070 | 2593.60001 | 2037.00000 | 1.01000 | 1.07470 | .96400 | .99350 | .95160 | .94370 | .95320 |
| .598 | 4.211 | 5.40400 | 2593.60001 | 2037.00000 | 1.01460 | 1.07990 | .96950 | 1.00250 | .95220 | .94430 | .96290 |
| .598 | 8.389 | 5.41850 | 2594.29999 | 2037.00000 | 1.01373 | 1.07630 | .96980 | 1.00450 | .95070 | .94180 | .95160 |
| .596 | 10.508 | 5.41650 | 2595.00000 | 2037.70000 | 1.00833 | 1.07320 | .96820 | 1.00450 | .95260 | .94210 | .95160 |
| .597 | 12.631 | 5.41650 | 2595.00000 | 2037.70000 | 1.00253 | 1.06790 | .96490 | 1.00790 | .95370 | .94180 | .95190 |
| .597 | 14.753 | 5.41360 | 2594.29999 | 2038.39999 | .99423 | 1.06040 | .96120 | 1.00390 | .95310 | .93950 | .94560 |
| .597 | 16.861 | 5.41020 | 2595.00000 | 2039.39999 | .99743 | 1.05090 | .95580 | 1.00160 | .95130 | .93650 | .94690 |
| .597 | 18.974 | 5.40900 | 2594.29999 | 2039.10001 | .96283 | 1.03000 | .94090 | .99440 | .94680 | .92780 | .93840 |
| .599 | 21.074 | 5.41790 | 2595.00000 | 2036.30000 | .00112 | 1.00127 | .00134 | .99407 | .00015 | .00015 | .00007 |
| | GRADIENT | .00558 | .00000 | .00000 | .00127 | .00127 | .00134 | .00207 | .00015 | .00015 | .00007 |

RUN NO. 246/ 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .900 | .059 | 5.40050 | 2116.20001 | 1251.70000 | 1.07420 | 1.21880 | .93690 | .99770 | .87500 | .85070 | .87020 |
| .899 | 4.262 | 5.43190 | 2114.70001 | 1251.70000 | 1.08330 | 1.22630 | .96210 | 1.02640 | .87870 | .85640 | .87450 |
| .901 | 6.396 | 5.42810 | 2118.29999 | 1251.60001 | 1.08880 | 1.22420 | .96920 | 1.03710 | .87130 | .84920 | .86860 |
| .898 | 8.522 | 5.43670 | 2116.89999 | 1252.39999 | 1.08320 | 1.22330 | .97790 | 1.04090 | .87550 | .85650 | .87820 |
| .898 | 10.674 | 5.42290 | 2116.89999 | 1252.39999 | 1.07070 | 1.21680 | .98100 | 1.04750 | .87080 | .84980 | .87190 |
| .898 | 12.799 | 5.42570 | 2116.20001 | 1254.50000 | 1.06270 | 1.20340 | .97540 | 1.05690 | .86540 | .84960 | .87250 |
| .900 | 14.943 | 5.43870 | 2118.29999 | 1252.30000 | 1.04807 | 1.19320 | .96930 | 1.05270 | .85080 | .83850 | .85660 |
| .898 | 17.078 | 5.46120 | 2116.20001 | 1254.50000 | 1.02360 | 1.17270 | .96110 | 1.05520 | .82690 | .81930 | .85150 |
| .899 | 21.368 | 5.46310 | 2116.20001 | 1252.39999 | .97810 | 1.13250 | .93410 | 1.04530 | .80770 | .79400 | .82200 |
| | GRADIENT | .00747 | .35686 | .00000 | .00216 | .00178 | .00597 | .00683 | .00088 | .00136 | .00102 |

RUN NO. 245/ 0 RNL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| .979 | .053 | 5.40930 | 2064.50000 | 1117.10001 | 1.13460 | 1.29950 | .98190 | .95420 | .79130 | .76300 | .78570 |
| .981 | 4.295 | 5.42730 | 2063.79999 | 1114.89999 | 1.14430 | 1.30790 | 1.00900 | 1.07570 | .79350 | .76490 | .78640 |
| .976 | 6.581 | 5.42550 | 2063.10001 | 1120.60001 | 1.13450 | 1.29330 | 1.02010 | 1.08770 | .80220 | .76870 | .81460 |
| .978 | 10.755 | 5.40110 | 2068.10001 | 1120.60001 | 1.12570 | 1.28850 | 1.02500 | 1.09630 | .79460 | .75460 | .79320 |
| .981 | 12.907 | 5.40970 | 2063.79999 | 1114.20000 | 1.11460 | 1.27850 | 1.01870 | 1.10780 | .77280 | .74280 | .77610 |
| .982 | 15.053 | 5.41750 | 2067.39999 | 1115.60001 | 1.09970 | 1.26360 | 1.01140 | 1.10180 | .76560 | .73300 | .76540 |
| .979 | 17.205 | 5.45630 | 2064.50000 | 1117.10001 | 1.07530 | 1.24360 | 1.00130 | 1.10690 | .75870 | .72600 | .74520 |
| .953 | 21.505 | 5.45980 | 2066.50001 | 1114.20000 | 1.02710 | 1.20090 | .97470 | 1.09310 | .71830 | .68170 | .70310 |
| | GRADIENT | .00425 | .16541 | .51987 | .00259 | .00199 | .00640 | .00787 | .00052 | .00045 | .00040 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = 10.000 BDFLAP = -7.170

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BPET = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 236/ 0 RM/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.100 | .071 | 5.39930 | 2004.39999 | 939.30000 | 1.25770 | 1.45750 | 1.07930 | 1.14950 | .70690 | .67380 | .67770 |
| 1.100 | 4.304 | 5.43540 | 2004.39999 | 939.00000 | 1.26510 | 1.46140 | 1.11510 | 1.18580 | .70490 | .67740 | .68480 |
| 1.097 | 6.603 | 5.43090 | 2005.10001 | 942.50000 | 1.25040 | 1.44588 | 1.13180 | 1.20040 | .69790 | .66490 | .67150 |
| 1.098 | 10.782 | 5.41110 | 2005.80000 | 941.80000 | 1.23990 | 1.43160 | 1.12820 | 1.20290 | .66310 | .66310 | .66660 |
| 1.028 | 12.931 | 5.41090 | 2005.50000 | 941.81000 | 1.22070 | 1.41440 | 1.10620 | 1.20560 | .65950 | .65950 | .65950 |
| 1.098 | 15.088 | 5.42770 | 2004.39999 | 943.89000 | 1.19930 | 1.39740 | 1.10620 | 1.20010 | .64610 | .64610 | .65990 |
| 1.098 | 17.257 | 5.46370 | 2005.80000 | 941.10000 | 1.17510 | 1.37870 | 1.09330 | 1.20620 | .64150 | .64150 | .65790 |
| 1.093 | 21.569 | 5.49500 | 2005.10001 | 939.00000 | 1.11360 | 1.32420 | .97300 | 1.15170 | .65310 | .65310 | .62780 |
| 1.100 | GRADIENT | .00853 | .00000 | .16535 | .00175 | .00092 | .00846 | .00857 | -.00002 | -.00002 | .00168 |

RUN NO. 235/ 0 RM/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.197 | .076 | 5.43020 | 2007.20000 | 831.07000 | 1.32640 | 1.55240 | 1.13610 | 1.20780 | .68860 | .63860 | .63790 |
| 1.198 | 4.288 | 5.42440 | 2007.20000 | 829.68000 | 1.32790 | 1.54390 | 1.16110 | 1.22260 | .68850 | .63840 | .64330 |
| 1.194 | 8.600 | 5.43350 | 2008.60001 | 834.56000 | 1.31250 | 1.52820 | 1.18430 | 1.22000 | .66650 | .62740 | .63110 |
| 1.199 | 10.777 | 5.42010 | 2009.39999 | 831.09000 | 1.30260 | 1.52190 | 1.10520 | 1.20310 | .65990 | .62090 | .62488 |
| 1.196 | 12.924 | 5.43270 | 2009.60001 | 833.17000 | 1.28860 | 1.50340 | 1.06750 | 1.18160 | .66130 | .61060 | .62340 |
| 1.196 | 15.069 | 5.44150 | 2010.10001 | 833.18000 | 1.26230 | 1.48210 | 1.04790 | 1.18100 | .65690 | .59370 | .62080 |
| 1.197 | 17.248 | 5.48020 | 2009.60001 | 831.77000 | 1.23920 | 1.46350 | 1.02240 | 1.18420 | .64370 | .59490 | .60580 |
| 1.197 | 21.568 | 5.50130 | 2006.50000 | 830.36000 | 1.17650 | 1.41450 | .97360 | 1.17880 | .62760 | .55650 | .61180 |
| | GRADIENT | -.00138 | .00000 | -.33003 | .00036 | -.00202 | .00596 | .00351 | -.00002 | -.00009 | .00128 |

RUN NO. 226/ 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|---------|------------|-----------|---------|---------|---------|---------|--------|--------|---------|
| 1.400 | .048 | 5.43790 | 2028.50000 | 637.11000 | 1.50490 | 1.76310 | 1.09510 | 1.26150 | .59210 | .58150 | .55440 |
| 1.400 | 4.241 | 5.44000 | 2028.50000 | 637.15000 | 1.51430 | 1.75710 | 1.11030 | 1.26650 | .58470 | .58470 | .55230 |
| 1.396 | 8.520 | 5.43910 | 2028.50000 | 640.79000 | 1.47980 | 1.72670 | 1.09840 | 1.26650 | .58970 | .55660 | .54270 |
| 1.397 | 10.695 | 5.40870 | 2028.50000 | 640.06000 | 1.46190 | 1.71360 | 1.09930 | 1.27310 | .59370 | .55390 | .54300 |
| 1.397 | 12.837 | 5.44610 | 2029.20000 | 640.78000 | 1.44390 | 1.69730 | 1.07510 | 1.26340 | .59050 | .52270 | .53160 |
| 1.397 | 14.993 | 5.43750 | 2029.50000 | 639.32000 | 1.42110 | 1.67840 | 1.06220 | 1.28590 | .59070 | .50630 | .52610 |
| 1.397 | 17.154 | 5.47310 | 2029.20000 | 640.78000 | 1.38676 | 1.65360 | 1.03360 | 1.28770 | .59670 | .49020 | .51300 |
| 1.399 | 21.474 | 5.50090 | 2029.89999 | 639.56000 | 1.33120 | 1.60740 | .97810 | 1.27270 | .56970 | .48190 | .51320 |
| | GRADIENT | -.00050 | -.52461 | .00954 | .00238 | -.00143 | .00362 | -.00033 | .00150 | .00076 | -.00058 |

(AETR38: (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09#)
ARC 11-97-87-09# 0A161 ORBITER + PROBES

PARAMETRIC DATA

BETA = -8.000 ELEVON = .000
AILLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 996.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 263/ 0 RV/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|--------|---------|--------|---------|---------|--------|
| .300 | 1.211 | -7.94770 | 4128.29999 | 3878.89999 | 1.00430 | .99530 | 1.00430 | .98890 | 1.00520 | 1.00310 | .98900 |
| .299 | 2.173 | -7.89310 | 4128.29999 | 3879.60001 | 1.00510 | .99560 | 1.00510 | .98920 | 1.00480 | 1.00260 | .98890 |
| .299 | 4.172 | -7.83850 | 4128.29999 | 3879.60001 | 1.02640 | .99570 | 1.00610 | .98910 | 1.00490 | 1.00330 | .98920 |
| .299 | 6.192 | -7.78390 | 4128.29999 | 3879.60001 | 1.02850 | .99560 | 1.00690 | .98940 | 1.00460 | 1.00310 | .98910 |
| .299 | 8.230 | -7.72930 | 4128.29999 | 3879.60001 | 1.02990 | .99510 | 1.00770 | .98940 | 1.00420 | 1.00250 | .98920 |
| .299 | 10.271 | -7.67470 | 4128.29999 | 3879.60001 | 1.0270 | .99380 | 1.00590 | .98770 | 1.00380 | 1.00190 | .98900 |
| .299 | 12.315 | -7.62010 | 4128.29999 | 3879.60001 | 1.02310 | .99250 | 1.00480 | .98660 | 1.00250 | .99910 | .98890 |
| .299 | 14.372 | -7.56550 | 4128.29999 | 3879.60001 | 1.01900 | .99120 | 1.00390 | .98540 | 1.00130 | .99740 | .98890 |
| .299 | 16.417 | -7.51090 | 4128.29999 | 3879.60001 | 1.01490 | .98990 | 1.00300 | .98420 | 1.00040 | .99650 | .98790 |
| .299 | 18.471 | -7.45630 | 4128.29999 | 3879.60001 | 1.01080 | .98860 | 1.00210 | .98300 | 1.00000 | .99520 | .98670 |
| .299 | 20.528 | -7.40170 | 4128.29999 | 3879.60001 | 1.00670 | .98730 | 1.00120 | .98140 | 1.00000 | .99430 | .98520 |
| .299 | 22.589 | -7.34710 | 4128.29999 | 3879.60001 | 1.00260 | .98600 | 1.00030 | .98000 | 1.00000 | .99320 | .98390 |
| .299 | 24.623 | -7.29250 | 4128.29999 | 3879.60001 | 1.00000 | .98470 | 1.00000 | .97770 | 1.00000 | .99210 | .98330 |
| .299 | 25.643 | -7.23790 | 4128.29999 | 3879.60001 | 1.00000 | .98340 | 1.00000 | .97560 | 1.00000 | .99050 | .98220 |
| | GRADIENT | .01422 | .00000 | .20065 | .00035 | .00012 | .00059 | .00005 | .00000 | .00011 | .00008 |

RUN NO. 264/ 0 RV/L = +1.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|--------|---------|--------|---------|---------|--------|
| .597 | 1.221 | -8.00730 | 2532.70001 | 1989.50000 | 1.10850 | .98210 | 1.01580 | .94940 | 1.01870 | 1.01110 | .95260 |
| .596 | 2.205 | -7.95370 | 2532.70001 | 1991.39999 | 1.10910 | .98070 | 1.01630 | .94990 | 1.01810 | 1.00960 | .95080 |
| .595 | 4.240 | -7.90010 | 2532.70001 | 1991.70000 | 1.11000 | .98240 | 1.01700 | .95120 | 1.01660 | 1.00700 | .95150 |
| .597 | 6.303 | -7.84650 | 2532.70001 | 1991.89999 | 1.11320 | .98190 | 1.02640 | .95350 | 1.01720 | 1.01070 | .95040 |
| .595 | 8.386 | -7.79290 | 2532.70001 | 1991.70000 | 1.10920 | .97900 | 1.02530 | .95220 | 1.01370 | 1.00970 | .94600 |
| .597 | 10.476 | -7.73930 | 2532.70001 | 1991.89999 | 1.10600 | .97630 | 1.02670 | .95150 | 1.01270 | 1.01100 | .95180 |
| .597 | 12.577 | -7.68570 | 2533.39999 | 1990.69999 | 1.10020 | .97090 | 1.02520 | .94960 | 1.01390 | 1.00560 | .95020 |
| .597 | 14.685 | -7.63210 | 2533.39999 | 1990.89999 | 1.09280 | .96210 | 1.02220 | .94330 | 1.02230 | 1.00160 | .94630 |
| .596 | 16.778 | -7.57850 | 2532.70001 | 1991.70000 | 1.08250 | .95430 | 1.02040 | .93940 | 1.03610 | 1.00400 | .95210 |
| .595 | 18.884 | -7.52490 | 2533.39999 | 1991.60000 | 1.07070 | .94070 | 1.01590 | .93270 | 1.04930 | 1.00400 | .95230 |
| .597 | 20.989 | -7.47130 | 2533.39999 | 1991.20000 | 1.06010 | .93110 | 1.01070 | .92620 | 1.05730 | 1.00700 | .95180 |
| .597 | 23.075 | -7.41770 | 2533.39999 | 1991.20000 | 1.04790 | .91920 | 1.00360 | .90760 | 1.06820 | 1.00160 | .94980 |
| .598 | 25.131 | -7.36410 | 2533.39999 | 1989.60000 | 1.03250 | .90980 | .99530 | .90690 | 1.06820 | 1.00160 | .94980 |
| .597 | 26.132 | -7.31050 | 2532.70001 | 1991.60000 | 1.02330 | .89410 | .98030 | .90350 | 1.07120 | 1.00000 | .94480 |
| | GRADIENT | .00528 | .00003 | .56741 | .00084 | .00021 | .00059 | .00064 | .00070 | .00026 | .00024 |

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A-ILRON = .000 BDFLAP = -7.170

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + PROBES

REFERENCE DATA

SREF = 2630.000 SQ.FT. XMRP = 1076.680 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 262/ 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|---------|---------|--------|
| .299 | 1.154 | -4.9109C | 4127.59998 | 3879.60001 | 1.01980 | 1.00030 | 1.00110 | .98110 | 1.00370 | 1.00140 | .98910 |
| .299 | 2.137 | -4.90160 | 4127.59998 | 3878.89999 | 1.02050 | 1.00070 | 1.00200 | .99130 | 1.00410 | 1.00180 | .98860 |
| .299 | 4.135 | -4.91230 | 4127.59998 | 3879.60001 | 1.02090 | 1.00080 | 1.00250 | .99160 | 1.00390 | 1.00120 | .98840 |
| .299 | 6.165 | -4.90710 | 4127.59998 | 3879.60001 | 1.02140 | 1.00050 | 1.00300 | .99120 | 1.00350 | 1.00110 | .98870 |
| .299 | 8.203 | -4.90440 | 4127.59998 | 3879.60001 | 1.02030 | .99950 | 1.00290 | .99100 | 1.00300 | 1.00130 | .99000 |
| .298 | 10.263 | -4.89420 | 4127.59998 | 3880.29999 | 1.01930 | .99900 | 1.00230 | .99070 | 1.00200 | 1.00190 | .99000 |
| .298 | 12.320 | -4.88770 | 4127.59998 | 3880.29999 | 1.01790 | .99820 | 1.00180 | .99030 | 1.00150 | 1.00280 | .98860 |
| .298 | 14.369 | -4.88150 | 4127.59998 | 3880.29999 | 1.01560 | .99540 | 1.00080 | .98930 | 1.00020 | 1.00200 | .98920 |
| .299 | 16.404 | -4.92860 | 4127.59998 | 3879.60001 | 1.01360 | .99340 | 1.00050 | .98780 | 1.00050 | 1.00180 | .98950 |
| .299 | 18.473 | -4.86420 | 4127.59998 | 3879.60001 | 1.01090 | .99320 | .99920 | .98630 | 1.00020 | .99470 | .98850 |
| .299 | 20.528 | -4.87620 | 4128.29999 | 3880.29999 | 1.00760 | .99140 | .99680 | .98420 | 1.00090 | .99190 | .98810 |
| .299 | 22.584 | -4.88070 | 4127.59998 | 3879.60001 | 1.00420 | .98420 | .99490 | .98260 | 1.01320 | .98910 | .98550 |
| .299 | 24.637 | -4.87430 | 4128.29999 | 3880.29999 | .99970 | .97970 | .98260 | .98010 | 1.01450 | .98320 | .98390 |
| .300 | 26.658 | -4.86300 | 4128.29999 | 3878.89999 | .99600 | .97830 | .93150 | .97970 | 1.01570 | .98270 | .98270 |
| GRADIENT | | -.00123 | -.00007 | .05129 | .00034 | .00015 | .00044 | .00017 | .00004 | -.00010 | .00007 |

RUN NO. 265/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|----------|------------|------------|---------|---------|---------|--------|---------|---------|--------|
| .595 | 1.137 | -4.93370 | 2530.60001 | 1990.89999 | 1.08640 | 1.00300 | 1.00330 | .95949 | 1.01390 | 1.00380 | .96460 |
| .595 | 2.165 | -4.93660 | 2531.29999 | 1991.70000 | 1.08850 | 1.00330 | 1.00550 | .95990 | 1.01450 | 1.00510 | .96380 |
| .595 | 4.201 | -4.93840 | 2532.00000 | 1990.89999 | 1.08970 | 1.00420 | 1.01080 | .96260 | 1.01480 | 1.00330 | .96580 |
| .595 | 6.274 | -4.93030 | 2532.00000 | 1991.50001 | 1.09080 | 1.00370 | 1.01140 | .96310 | 1.01290 | 1.00270 | .96450 |
| .595 | 8.358 | -4.92160 | 2532.00000 | 1990.89999 | 1.08740 | 1.00060 | 1.01030 | .96040 | 1.01070 | 1.00530 | .96680 |
| .595 | 10.463 | -4.90970 | 2532.70001 | 1991.70000 | 1.08260 | .99630 | 1.00970 | .96220 | 1.01140 | 1.00750 | .96650 |
| .595 | 12.572 | -4.89480 | 2533.39999 | 1993.10001 | 1.07590 | .98890 | 1.00830 | .95970 | 1.01510 | 1.00100 | .96710 |
| .594 | 14.667 | -4.87590 | 2533.39999 | 1990.89999 | 1.06990 | .98410 | 1.00870 | .95630 | 1.02170 | 1.00320 | .96540 |
| .594 | 16.754 | -4.87660 | 2533.39999 | 1969.50000 | 1.06130 | .97500 | 1.00550 | .95200 | 1.02890 | 1.00590 | .96160 |
| .597 | 18.833 | -4.92430 | 2533.39999 | 1991.70000 | 1.05020 | .96310 | .99970 | .94530 | 1.03500 | 1.00440 | .96170 |
| .597 | 20.934 | -4.92660 | 2533.39999 | 1990.89999 | 1.03870 | .95020 | .99250 | .93990 | 1.04610 | .99360 | .95940 |
| .597 | 23.066 | -4.90700 | 2533.39999 | 1991.70000 | 1.02260 | .93570 | .98500 | .92930 | 1.05380 | .98350 | .95550 |
| .597 | 25.166 | -4.89560 | 2533.39999 | 1991.70000 | 1.00810 | .91890 | .97550 | .92110 | 1.06310 | .97420 | .92390 |
| .599 | 26.161 | -4.87530 | 2533.39999 | 1989.50000 | 1.00090 | .91350 | .97200 | .91650 | 1.06770 | .97110 | .91300 |
| GRADIENT | | -.00144 | .44106 | -.05523 | .00101 | .00040 | .00247 | .00109 | .00027 | -.00026 | .00047 |

(AE7R+0) (02 AUG 75)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ATLROM = .000 EDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 261/ 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|---------|---------|---------|
| .299 | 1.120 | -1.65800 | 4128.29999 | 3879.60001 | 1.01480 | 1.08320 | .98840 | .99430 | 1.00380 | 1.00070 | .99340 |
| .300 | 2.103 | -1.85330 | 4129.00000 | 3879.60001 | 1.01550 | 1.00570 | .99910 | .99350 | 1.00410 | 1.00060 | .99000 |
| .300 | 4.110 | -1.84130 | 4129.00000 | 3879.60001 | 1.01560 | 1.00520 | .99950 | .99380 | 1.00430 | 1.00030 | .99940 |
| .300 | 6.141 | -1.83440 | 4129.00000 | 3879.60001 | 1.01550 | 1.00560 | 1.00010 | .99410 | 1.00410 | 1.00110 | .99990 |
| .299 | 8.178 | -1.84120 | 4129.00000 | 3880.29999 | 1.01520 | 1.00500 | .99950 | .99370 | 1.00370 | 1.00230 | .99900 |
| .299 | 10.234 | -1.84360 | 4129.00000 | 3880.29999 | 1.01410 | 1.00350 | .99880 | .99330 | 1.00280 | 1.00280 | .99030 |
| .300 | 12.305 | -1.84210 | 4129.00000 | 3879.60001 | 1.01300 | 1.00270 | .99860 | .99290 | 1.00280 | 1.00280 | .99030 |
| .300 | 14.351 | -1.83720 | 4129.00000 | 3879.60001 | 1.01070 | 1.00170 | .99820 | .99230 | 1.00290 | 1.00290 | .99060 |
| .299 | 16.419 | -1.83190 | 4129.00000 | 3880.29999 | 1.00830 | .99810 | .99650 | .99180 | 1.00750 | 1.00750 | .98940 |
| .300 | 18.491 | -1.84360 | 4129.00000 | 3879.60001 | 1.00570 | .99570 | .99500 | .99030 | 1.00960 | 1.00960 | .98810 |
| .299 | 20.571 | -1.84770 | 4129.00000 | 3879.29999 | 1.00240 | .99260 | .99310 | .98790 | 1.01030 | 1.01030 | .98720 |
| .299 | 22.611 | -1.84190 | 4128.29999 | 3880.29999 | .99870 | .98870 | .99110 | .98570 | 1.01260 | 1.01260 | .98560 |
| .299 | 24.656 | -1.82200 | 4128.29999 | 3880.29999 | .99430 | .98540 | .98820 | .98340 | 1.01200 | 1.01200 | .98280 |
| .299 | 25.667 | -1.80860 | 4127.59999 | 3879.60001 | .99280 | .98310 | .98740 | .98220 | 1.01290 | 1.01290 | .98190 |
| | GRADIENT | .00853 | .19958 | .00000 | .00024 | .00022 | .00034 | .00019 | .00016 | -.00024 | -.00027 |

RUN NO. 266/ 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|--------|--------|---------|---------|---------|
| .595 | 1.095 | -1.85260 | 2531.29999 | 1991.70000 | 1.06380 | 1.02300 | .99130 | .98820 | 1.01400 | 1.01400 | .99520 |
| .596 | 2.127 | -1.85930 | 2531.29999 | 1990.20000 | 1.06570 | 1.02560 | .99390 | .98920 | 1.01530 | 1.01530 | .99650 |
| .596 | 4.174 | -1.84390 | 2532.00000 | 1990.89999 | 1.06890 | 1.02580 | .99690 | .97250 | 1.01520 | 1.01520 | .99730 |
| .596 | 6.254 | -1.84260 | 2532.00000 | 1990.89999 | 1.07030 | 1.02590 | .99940 | .97440 | 1.01520 | 1.01520 | .99740 |
| .597 | 8.333 | -1.84590 | 2532.00000 | 1989.50000 | 1.05670 | 1.02290 | .99680 | .97340 | 1.01420 | 1.01420 | .99560 |
| .596 | 10.439 | -1.84040 | 2532.00000 | 1989.89999 | 1.06190 | 1.01790 | .99690 | .97170 | 1.01440 | 1.01440 | .99540 |
| .596 | 12.555 | -1.83260 | 2532.00000 | 1991.60001 | 1.05460 | 1.01100 | .99510 | .97270 | 1.01510 | 1.01510 | .99530 |
| .597 | 14.645 | -1.79990 | 2532.70001 | 1990.20000 | 1.04890 | 1.00990 | .99470 | .96960 | 1.01220 | 1.01220 | .99370 |
| .597 | 16.777 | -1.86040 | 2532.70001 | 1990.20000 | 1.04020 | .99530 | .99350 | .96510 | 1.00980 | 1.00980 | .99140 |
| .597 | 18.904 | -1.86340 | 2532.70001 | 1990.89999 | 1.02830 | .99440 | .99360 | .95990 | 1.00910 | 1.00910 | .99130 |
| .597 | 21.035 | -1.85660 | 2532.70001 | 1990.20000 | 1.01600 | .97220 | .97680 | .95200 | 1.01200 | 1.01200 | .98560 |
| .597 | 23.120 | -1.84690 | 2532.70001 | 1990.89999 | 1.00120 | .94740 | .96980 | .92220 | 1.01520 | 1.01520 | .98220 |
| .597 | 25.187 | -1.81620 | 2532.70001 | 1990.89999 | .98620 | .94340 | .95980 | .93560 | 1.01200 | 1.01200 | .98190 |
| .597 | 26.172 | -1.80260 | 2532.70001 | 1990.89999 | .97650 | .93500 | .95390 | .93130 | 1.01520 | 1.01520 | .98190 |
| | GRADIENT | .00347 | .12435 | -.17487 | .00174 | .00079 | .00174 | .00143 | .00033 | -.00099 | -.00054 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + PROBES

(AETRM11) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
A1LRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 260/ 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|--------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .299 | 1.084 | .19260 | 4127.59999 | 3878.89999 | 1.01160 | 1.00910 | .99690 | .99520 | 1.00410 | 1.00160 | .99000 |
| .299 | 2.036 | .20570 | 4127.59999 | 3879.60001 | 1.01180 | 1.00940 | .99710 | .99560 | 1.00430 | 1.00130 | .99010 |
| .299 | 4.109 | .20700 | 4127.59999 | 3890.29999 | 1.01170 | 1.00930 | .99750 | .99590 | 1.00460 | .99980 | .99020 |
| .299 | 6.136 | .21520 | 4127.59999 | 3879.60001 | 1.01260 | 1.00940 | .99810 | .99650 | 1.00460 | 1.00030 | .99040 |
| .299 | 8.176 | .22280 | 4127.59999 | 3879.60001 | 1.01150 | 1.00880 | .99750 | .99540 | 1.00399 | 1.00099 | .99020 |
| .299 | 10.218 | .22810 | 4127.59999 | 3890.29999 | 1.01040 | 1.00740 | .99690 | .99530 | 1.00330 | 1.00180 | .98990 |
| .299 | 12.260 | .23140 | 4127.59999 | 3890.29999 | 1.00910 | 1.00610 | .99640 | .99450 | 1.00360 | 1.00150 | .99000 |
| .299 | 14.305 | .23940 | 4127.59999 | 3860.29999 | 1.00720 | 1.00430 | .99580 | .99450 | 1.00400 | .99750 | .98930 |
| .299 | 16.375 | .24200 | 4127.59999 | 3860.29999 | 1.00470 | 1.00180 | .99400 | .99400 | 1.00460 | .99750 | .98930 |
| .299 | 18.446 | .24350 | 4127.59999 | 3860.29999 | 1.00220 | .99950 | .99280 | .99220 | 1.00670 | .99410 | .98720 |
| .299 | 20.528 | .24530 | 4127.59999 | 3860.29999 | .99910 | .99670 | .99080 | .99030 | 1.00880 | .99070 | .98460 |
| .299 | 22.617 | .25320 | 4128.29999 | 3860.29999 | .99500 | .99280 | .98850 | .98820 | 1.00970 | .98730 | .98340 |
| .299 | 24.727 | .26200 | 4128.29999 | 3860.29999 | .99080 | .98890 | .98560 | .98570 | 1.01120 | .98530 | .98130 |
| .299 | 25.858 | .25590 | 4128.29999 | 3860.29999 | .98660 | .98680 | .98430 | .98510 | 1.01170 | .98530 | .98130 |
| .299 | 27.014 | .00000 | .00000 | .00000 | .00002 | .00005 | .00020 | .00322 | .00016 | -.00062 | .00005 |

RUN NO. 267/ 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|--------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .595 | 1.090 | .19810 | 2530.60001 | 1991.70000 | 1.04970 | 1.03670 | .98430 | .97650 | 1.01530 | 1.00470 | .99560 |
| .595 | 2.124 | .20270 | 2531.29999 | 1990.20000 | 1.05140 | 1.03950 | .98470 | .97800 | 1.01660 | 1.00360 | .99470 |
| .595 | 4.175 | .20870 | 2531.29999 | 1991.70000 | 1.05230 | 1.04060 | .98770 | .98000 | 1.01710 | .99910 | .98560 |
| .595 | 6.245 | .21260 | 2531.29999 | 1992.39999 | 1.05460 | 1.03930 | .98960 | .98190 | 1.01630 | .99790 | .98640 |
| .596 | 8.336 | .21390 | 2532.70001 | 1992.39999 | 1.05010 | 1.03630 | .98880 | .98100 | 1.01420 | 1.00160 | .98760 |
| .597 | 10.429 | .21190 | 2533.39999 | 1991.70000 | 1.04640 | 1.03330 | .98940 | .97950 | 1.00310 | 1.00190 | .98820 |
| .597 | 12.522 | .21000 | 2534.10001 | 1990.89999 | 1.04190 | 1.02710 | .98660 | .98020 | 1.01410 | 1.00140 | .98280 |
| .597 | 14.632 | .22390 | 2534.10001 | 1991.60001 | 1.03400 | 1.01970 | .98540 | .97860 | 1.01390 | 1.00340 | .98700 |
| .597 | 16.750 | .22010 | 2534.10001 | 1990.89999 | 1.02620 | 1.01150 | .98130 | .97580 | 1.01820 | .99820 | .98680 |
| .599 | 18.863 | .21870 | 2534.10001 | 1990.20000 | .01410 | .00070 | .96340 | .95340 | 1.02670 | .98580 | .92950 |
| .598 | 21.001 | .20460 | 2535.60001 | 1993.10001 | .98520 | .97260 | .96540 | .95430 | 1.03610 | .96770 | .91910 |
| .597 | 23.089 | .20700 | 2535.60001 | 1994.50000 | .96670 | .95580 | .94590 | .94500 | 1.04560 | .95990 | .90950 |
| .596 | 25.164 | .20310 | 2535.60001 | 1991.70000 | .95160 | .94010 | .94210 | .94500 | 1.04970 | .96430 | .90500 |
| .598 | 26.150 | .00336 | .00336 | .10314 | .00079 | .00060 | .00115 | .00111 | .00054 | -.00222 | .00041 |

(AETRMEZ (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = 0.0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0500

RUN NO. 259/ 0 RW/L = 3.96 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PSI/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|---------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .298 | 1.090 | 2.24570 | 4126.90002 | 3881.00000 | 1.08780 | 1.01240 | .99490 | .99690 | 1.00390 | 1.00190 | .98930 |
| .298 | 2.101 | 2.25250 | 4125.90002 | 3881.00000 | 1.00790 | 1.01290 | .99510 | .99750 | 1.00420 | 1.00110 | .98970 |
| .298 | 4.112 | 2.27670 | 4126.90002 | 3881.00000 | 1.00840 | 1.01270 | .99570 | .99810 | 1.00450 | .99940 | .98950 |
| .298 | 5.147 | 2.28260 | 4126.90002 | 3881.00000 | 1.00910 | 1.01290 | .99610 | .99850 | 1.00430 | .99950 | .98960 |
| .297 | 6.189 | 2.29000 | 4126.90002 | 3881.70001 | 1.00770 | 1.01220 | .99520 | .99780 | 1.00386 | .99870 | .98980 |
| .297 | 7.247 | 2.30690 | 4126.90002 | 3881.70001 | 1.00690 | 1.01140 | .99460 | .99730 | 1.00310 | 1.00160 | .98970 |
| .297 | 8.311 | 2.31170 | 4126.90002 | 3881.70001 | 1.00550 | 1.01020 | .99460 | .99730 | 1.00310 | 1.00050 | .98940 |
| .297 | 9.377 | 2.31170 | 4126.90002 | 3882.39999 | 1.00360 | 1.00780 | .99330 | .99590 | 1.00300 | .99370 | .98720 |
| .298 | 10.446 | 2.32990 | 4126.90002 | 3881.70001 | 1.00100 | 1.00510 | .99210 | .99470 | 1.00380 | .99390 | .98690 |
| .298 | 11.519 | 2.34840 | 4126.90002 | 3882.29999 | .99850 | 1.00270 | .99050 | .99370 | 1.00340 | .99400 | .98500 |
| .298 | 12.625 | 2.33910 | 4126.90002 | 3878.89999 | .99560 | .99800 | .98900 | .99200 | 1.00310 | .98770 | .98370 |
| .299 | 13.761 | 2.24480 | 4126.90002 | 3878.89999 | .99170 | .99640 | .98940 | .99120 | 1.00340 | .98610 | .98270 |
| .299 | 14.935 | 2.26980 | 4127.59998 | 3881.00000 | .98780 | .99230 | .98840 | .98880 | 1.00340 | .98600 | .98150 |
| .298 | 16.162 | 2.28240 | 4127.59998 | 3878.89999 | .98600 | .99090 | .98640 | .98780 | 1.01000 | .98500 | .98150 |
| .299 | 17.433 | .00725 | .00000 | .00000 | .00021 | .00007 | .00000 | .00038 | .00019 | .00083 | .00804 |

| MACH | ALPHA | BETA | PT | P | PSI/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|--------|---------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .597 | 1.121 | 2.25250 | 2532.70001 | 1990.00000 | 1.03560 | 1.05450 | .97560 | .98420 | 1.01560 | 1.00420 | .95510 |
| .597 | 2.132 | 2.27630 | 2534.10001 | 1990.89999 | 1.03600 | 1.05520 | .97750 | .98550 | 1.01560 | 1.00180 | .95520 |
| .593 | 4.187 | 2.29490 | 2534.10001 | 1989.50000 | 1.03840 | 1.05740 | .98080 | .98950 | 1.01790 | .99850 | .95620 |
| .597 | 6.256 | 2.30040 | 2534.10001 | 1990.89999 | 1.03420 | 1.05190 | .98120 | .98920 | 1.01460 | .99950 | .95550 |
| .595 | 8.355 | 2.31090 | 2568.79999 | 2021.39999 | 1.03170 | 1.04960 | .98110 | .98870 | 1.01350 | 1.00500 | .95570 |
| .595 | 10.458 | 2.30740 | 2568.79999 | 2020.00000 | 1.02630 | 1.04340 | .98010 | .98900 | 1.01280 | 1.00140 | .95570 |
| .595 | 12.613 | 2.29030 | 2568.79999 | 2020.00000 | 1.01830 | 1.03510 | .97420 | .98980 | 1.01420 | 1.00270 | .95390 |
| .597 | 14.746 | 2.28860 | 2569.50000 | 2019.80000 | 1.00940 | 1.02620 | .96890 | .98900 | 1.01190 | .99540 | .94320 |
| .595 | 16.890 | 2.27590 | 2569.50000 | 2021.39999 | .98680 | 1.00400 | .96170 | .97580 | 1.01380 | .99400 | .94320 |
| .595 | 19.024 | 2.28270 | 2570.20001 | 2021.60001 | .96900 | 1.00400 | .94650 | .96690 | 1.02120 | .96370 | .94140 |
| .593 | 21.104 | 2.27590 | 2570.20001 | 2022.10001 | .96900 | .98740 | .94650 | .96690 | 1.02800 | .96370 | .94140 |
| .595 | 23.232 | 2.28420 | 2570.20001 | 2022.10001 | .95620 | .97520 | .93730 | .95780 | 1.03790 | .96110 | .90678 |
| .597 | 25.233 | 2.30570 | 2570.20001 | 2020.70000 | .94360 | .96430 | .93310 | .95530 | 1.04090 | .96390 | .90678 |
| .595 | 27.202 | .01313 | .38963 | .29470 | .00095 | .00095 | .00168 | .00176 | .00080 | .00182 | .00058 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + PROBES

(AETR43) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1300

| MACH | ALPHA | BETA | RUN NO. | 258/0 | PT | P | RN/L | 3.96 | GRADIENT INTERVAL = -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|--------|----------------------------|---------|--------|---------|---------|---------|---------|--------|--------|
| .297 | 1.115 | 5.31100 | 4128.29999 | 3883.79999 | 1.00250 | 1.01740 | .99230 | .99970 | 1.00000 | 1.00290 | .98870 | 1.00290 | 1.00290 | 1.00290 | 1.00000 | .98870 | .98870 |
| .297 | 2.117 | 5.31810 | 4128.29999 | 3883.79999 | 1.00290 | 1.01780 | .99280 | .99980 | 1.00000 | 1.00330 | .98930 | 1.00330 | 1.00330 | 1.00330 | .99990 | .98930 | .98930 |
| .297 | 4.137 | 5.33120 | 4128.29999 | 3883.10001 | 1.00410 | 1.01830 | .99310 | .99990 | 1.00000 | 1.00410 | .99010 | 1.00410 | 1.00410 | 1.00410 | 1.00180 | .99010 | .99010 |
| .297 | 6.175 | 5.33870 | 4128.29999 | 3883.10001 | 1.00230 | 1.01750 | .99360 | .99990 | 1.00000 | 1.00270 | .99060 | 1.00270 | 1.00270 | 1.00270 | 1.00160 | .99060 | .99060 |
| .297 | 8.225 | 5.34490 | 4128.29999 | 3884.50000 | 1.00160 | 1.01680 | .99270 | .99990 | 1.00000 | 1.00160 | .99130 | .99270 | .99270 | .99270 | 1.00120 | .99130 | .99130 |
| .297 | 10.302 | 5.34910 | 4128.29999 | 3884.50000 | 1.00020 | 1.01620 | .99060 | .99990 | 1.00000 | 1.00020 | .99060 | .99060 | .99060 | .99060 | 1.00100 | .99060 | .99060 |
| .297 | 14.447 | 5.35510 | 4128.29999 | 3883.10001 | .99850 | 1.01360 | .98890 | .99990 | 1.00000 | .99850 | .99890 | .98890 | .98890 | .98890 | 1.00260 | .98890 | .98890 |
| .298 | 16.509 | 5.36200 | 4128.29999 | 3881.00000 | .99620 | 1.01110 | .98730 | .99990 | 1.00000 | .99620 | .99840 | .98730 | .98730 | .98730 | 1.00360 | .98730 | .98730 |
| .298 | 18.569 | 5.36950 | 4128.29999 | 3881.00000 | .99350 | 1.00870 | .98540 | .99990 | 1.00000 | .99350 | .99730 | .98540 | .98540 | .98540 | 1.00410 | .99730 | .98780 |
| .298 | 20.619 | 5.37420 | 4129.00000 | 3880.25999 | .99030 | 1.00530 | .98250 | .99990 | 1.00000 | .99030 | .99530 | .98250 | .98250 | .98250 | 1.00450 | .99530 | .98780 |
| .298 | 22.639 | 5.37720 | 4129.00000 | 3881.70001 | .98620 | 1.00190 | .97940 | .99990 | 1.00000 | .98620 | .99310 | .97940 | .97940 | .97940 | 1.00490 | .99570 | .98420 |
| .298 | 24.652 | 5.37750 | 4129.00000 | 3883.10001 | .98090 | .99650 | .97910 | .99990 | 1.00000 | .98090 | .99260 | .97910 | .97910 | .97910 | 1.00560 | .98550 | .98150 |
| .298 | 26.653 | 5.37410 | 4129.00000 | 3881.70001 | .00026 | .00026 | .00025 | .00043 | .00026 | .00026 | .00025 | .00025 | .00025 | .00025 | .00022 | .00026 | .00026 |
| .298 | GRADIENT | .00065 | .00007 | -.24825 | | | | | | | | | | | | | |

| MACH | ALPHA | BETA | RUN NO. | 269/0 | PT | P | RN/L | +4.22 | GRADIENT INTERVAL = -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|--------|----------------------------|---------|--------|--------|--------|---------|---------|--------|--------|
| .595 | 1.187 | 5.37510 | 2568.10001 | 2020.70000 | 1.01350 | 1.07530 | .96640 | .99560 | .99810 | 1.01210 | .99810 | .96640 | .99560 | 1.01210 | .99810 | .95340 | .95340 |
| .595 | 2.204 | 5.37240 | 2568.10001 | 2020.00000 | 1.01440 | 1.07660 | .96750 | .99810 | .99810 | 1.01350 | .99790 | .96750 | .99810 | 1.01350 | .99690 | .95360 | .95360 |
| .595 | 4.262 | 5.37190 | 2568.10001 | 2019.30000 | 1.01670 | 1.07830 | .96930 | .99990 | 1.00000 | 1.01670 | .99990 | .96930 | .99990 | 1.01670 | .99690 | .95260 | .95260 |
| .595 | 6.339 | 5.36930 | 2568.10001 | 2020.70000 | 1.01900 | 1.07710 | .97090 | .99990 | 1.00000 | 1.01900 | .99990 | .97090 | .99990 | 1.01900 | 1.00440 | .95230 | .95230 |
| .595 | 8.421 | 5.36360 | 2568.10001 | 2021.39999 | 1.01320 | 1.07380 | .97150 | .99990 | 1.00000 | 1.01320 | .99990 | .97150 | .99990 | 1.01320 | 1.00550 | .95270 | .95270 |
| .595 | 10.505 | 5.35520 | 2568.79999 | 2021.39999 | 1.01050 | 1.07040 | .96930 | .99990 | 1.00000 | 1.01050 | .99990 | .96930 | .99990 | 1.00650 | 1.00840 | .95300 | .95300 |
| .595 | 12.591 | 5.34520 | 2568.79999 | 2022.10001 | 1.00360 | 1.06490 | .96640 | .99990 | 1.00000 | .99750 | .99290 | .96640 | .99990 | 1.00690 | 1.00060 | .95290 | .95290 |
| .595 | 14.673 | 5.33260 | 2568.79999 | 2020.00000 | .99750 | 1.05910 | .96370 | .99990 | 1.00000 | .99750 | .99490 | .96370 | .99990 | 1.01020 | 1.00540 | .95170 | .95170 |
| .595 | 16.759 | 5.32260 | 2568.79999 | 2020.70000 | .99220 | 1.05120 | .96120 | .99990 | 1.00000 | .99220 | .99330 | .96120 | .99990 | 1.01070 | 1.00230 | .94610 | .94610 |
| .595 | 18.835 | 5.31200 | 2568.79999 | 2024.20000 | .98820 | 1.04390 | .95720 | .99990 | 1.00000 | .98820 | .99460 | .95720 | .99990 | 1.01250 | .99780 | .94220 | .94220 |
| .595 | 20.991 | 5.30040 | 2568.79999 | 2022.10001 | .98430 | 1.03690 | .95480 | .99990 | 1.00000 | .98430 | .99170 | .95480 | .99990 | 1.01650 | .99290 | .93720 | .93720 |
| .595 | 23.075 | 5.30000 | 2568.79999 | 2022.10001 | .98050 | 1.02990 | .95250 | .99990 | 1.00000 | .98050 | .98480 | .95250 | .99990 | 1.01830 | .99550 | .93310 | .93310 |
| .595 | 25.155 | 5.37020 | 2569.50000 | 2022.80000 | .93160 | 1.02390 | .92180 | .99990 | 1.00000 | .93160 | .97790 | .92180 | .99990 | 1.02290 | .95930 | .90780 | .90780 |
| .595 | 26.117 | 5.37890 | 2568.79999 | 2022.10001 | .92450 | .99090 | .91680 | .99990 | 1.00000 | .92450 | .97260 | .91680 | .99990 | 1.02520 | .95930 | .90780 | .90780 |
| .595 | GRADIENT | -.00092 | .00000 | -.43856 | .01105 | .00095 | .00093 | .00012 | .00092 | .00095 | .00012 | .00093 | .00012 | .00038 | .00040 | .00029 | .00029 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XCRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 6.000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 257/ 0 RN/L = 3.92 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|--------|---------|---------|---------|---------|---------|---------|
| .295 | 1.185 | 8.35750 | 4125.50000 | 3883.70001 | .99790 | 1.02300 | .99100 | 1.00310 | 1.00300 | .99990 | .98920 |
| .294 | 2.174 | 8.37540 | 4123.90002 | 3986.60001 | .99790 | 1.02270 | .99110 | 1.00340 | 1.00300 | .99970 | .98950 |
| .295 | 4.182 | 8.37530 | 4127.59998 | 3985.60001 | .99850 | 1.02280 | .99100 | 1.00410 | 1.00320 | 1.00070 | .98810 |
| .295 | 6.217 | 8.37270 | 4128.29999 | 3885.89999 | .99880 | 1.02270 | .99090 | 1.00470 | 1.00420 | 1.00170 | .98880 |
| .296 | 8.253 | 8.37780 | 4128.29999 | 3985.20001 | .99740 | 1.02250 | .99100 | 1.00440 | 1.00350 | 1.00220 | .98890 |
| .295 | 10.319 | 8.37200 | 4128.29999 | 3885.60001 | .99660 | 1.02070 | .98930 | 1.00410 | 1.00170 | 1.00210 | .98780 |
| .295 | 12.372 | 8.37380 | 4128.29999 | 3885.60001 | .99480 | 1.01980 | .98910 | 1.00380 | 1.00180 | 1.00151 | .98820 |
| .295 | 14.435 | 8.37670 | 4128.29999 | 3886.60001 | .99330 | 1.01820 | .98770 | 1.00350 | 1.00200 | .99990 | .98810 |
| .295 | 16.477 | 8.35550 | 4128.29999 | 3885.20001 | .99090 | 1.01580 | .98620 | 1.00270 | 1.00230 | .99750 | .98827 |
| .295 | 18.532 | 8.35790 | 4128.29999 | 3885.20001 | .98840 | 1.01320 | .98420 | 1.00160 | 1.00270 | .99500 | .98810 |
| .295 | 20.574 | 8.36760 | 4128.29999 | 3885.89999 | .98500 | 1.01020 | .98220 | 1.00020 | 1.00320 | .98780 | .98780 |
| .294 | 22.587 | 8.39300 | 4128.29999 | 3887.29999 | .98180 | 1.00630 | .97950 | .99970 | 1.00410 | .98490 | .98520 |
| .294 | 24.599 | 8.40500 | 4128.29999 | 3887.29999 | .97780 | 1.00300 | .97710 | .99750 | 1.00480 | .98440 | .98390 |
| .295 | 25.580 | 8.42800 | 4128.29999 | 3885.89999 | .97620 | 1.00130 | .97570 | .99550 | 1.00480 | .98440 | .98390 |
| GRADIENT | | .00507 | .64938 | .82648 | .00021 | -.00005 | -.00001 | .00034 | .00007 | .00030 | -.00004 |

RUN NO. 270/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|--------|---------|--------|---------|---------|---------|---------|
| .595 | 1.188 | 8.42910 | 2567.39999 | 2021.39999 | .99110 | 1.09640 | .95620 | 1.00950 | 1.00870 | .99450 | .94710 |
| .595 | 2.204 | 8.43240 | 2567.39999 | 2021.39999 | .99140 | 1.09760 | .95710 | 1.01190 | 1.00850 | .99540 | .94660 |
| .595 | 4.256 | 8.42870 | 2567.39999 | 2020.70000 | .99650 | 1.09970 | .95960 | 1.01560 | 1.01160 | .99740 | .94840 |
| .595 | 6.236 | 8.42250 | 2568.10001 | 2021.39999 | .99650 | 1.09770 | .95980 | 1.01840 | 1.01400 | 1.00290 | .94790 |
| .594 | 8.217 | 8.43010 | 2568.10001 | 2022.10001 | .98970 | 1.09500 | .95910 | 1.01830 | 1.01060 | 1.00250 | .94770 |
| .595 | 10.255 | 8.42330 | 2568.10001 | 2021.39999 | .98790 | 1.09170 | .95730 | 1.01850 | 1.00730 | 1.00570 | .95120 |
| .595 | 12.261 | 8.41790 | 2568.79999 | 2022.10001 | .98220 | 1.08900 | .95450 | 1.01860 | 1.00520 | 1.00010 | .94910 |
| .595 | 14.248 | 8.42180 | 2568.79999 | 2021.39999 | .97520 | 1.07800 | .94850 | 1.01970 | 1.00740 | .99740 | .94750 |
| .595 | 16.229 | 8.40560 | 2568.79999 | 2020.00000 | .96500 | 1.07060 | .94360 | 1.01690 | 1.00770 | .99290 | .94610 |
| .595 | 18.232 | 8.41200 | 2569.79999 | 2017.89999 | .95540 | 1.06050 | .93610 | 1.01370 | 1.01130 | .98620 | .94350 |
| .594 | 20.220 | 8.42030 | 2568.79999 | 2023.50000 | .94100 | 1.04590 | .92680 | 1.01040 | 1.01130 | .96900 | .93720 |
| .593 | 22.079 | 8.42720 | 2569.50000 | 2022.80000 | .92670 | 1.03400 | .91730 | 1.00040 | 1.01130 | .95100 | .93160 |
| .595 | 24.131 | 8.43860 | 2569.50000 | 2022.80000 | .90680 | 1.01990 | .90680 | .99230 | 1.01780 | .94070 | .92470 |
| .595 | 26.100 | 8.44420 | 2569.50000 | 2020.70000 | .90420 | 1.01160 | .90270 | .99030 | 1.02090 | .95480 | .92600 |
| GRADIENT | | -.00037 | .00003 | -.24456 | .00187 | -.00107 | .00112 | -.00193 | -.00103 | .00095 | -.00004 |

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. RP = 1076.6800 IN. XO
 LREF = 474.8000 IN. RP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = 15.000
 AILRON = .000 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|---------|---------|--------|
| .295 | 1.194 | -4.89590 | 4102.90002 | 3860.39999 | 1.01980 | 1.00040 | 1.00060 | 99120 | 1.00390 | 1.00130 | 98770 |
| .295 | 2.186 | -4.89590 | 4102.90002 | 3861.10001 | 1.02810 | 1.00060 | 1.00200 | 99140 | 1.00390 | 1.00080 | 98700 |
| .295 | 4.186 | -4.89440 | 4102.90002 | 3860.39999 | 1.02040 | 1.00100 | 1.00290 | 99160 | 1.00400 | 1.00100 | 98760 |
| .295 | 6.213 | -4.88560 | 4102.90002 | 3861.10001 | 1.02100 | 1.00050 | 1.00290 | 99160 | 1.00360 | 1.00070 | 98810 |
| .295 | 8.252 | -4.88380 | 4103.59998 | 3861.79999 | 1.01960 | 99960 | 1.00260 | 99080 | 1.00500 | 1.00090 | 98790 |
| .295 | 10.309 | -4.87440 | 4103.59998 | 3861.10001 | 1.01890 | 99830 | 1.00220 | 99110 | 1.00310 | 1.00080 | 98820 |
| .295 | 12.365 | -4.84240 | 4103.59998 | 3861.10001 | 1.01740 | 99690 | 1.00100 | 99030 | 1.00450 | 99300 | 98890 |
| .295 | 14.411 | -4.81730 | 4103.59999 | 3860.39999 | 1.01570 | 99570 | 1.00100 | 98970 | 1.00610 | 99710 | 98850 |
| .295 | 16.451 | -4.81530 | 4103.59998 | 3861.10001 | 1.01310 | 99320 | 1.00030 | 98800 | 1.00730 | 99420 | 98790 |
| .295 | 18.519 | -4.84950 | 4103.59998 | 3861.10001 | 1.01010 | 99070 | 99900 | 98630 | 1.00920 | 99110 | 98670 |
| .295 | 20.573 | -4.85980 | 4103.59998 | 3860.39999 | 1.00710 | 98710 | 99570 | 98460 | 1.01150 | 98800 | 98650 |
| .295 | 22.625 | -4.85660 | 4103.59998 | 3861.79999 | 1.00340 | 98390 | 99480 | 98230 | 1.01270 | 98560 | 98420 |
| .295 | 24.678 | -4.86310 | 4103.59998 | 3861.10001 | 99940 | 98030 | 99250 | 98010 | 1.01490 | 98550 | 98260 |
| .295 | 25.663 | -4.85820 | 4103.59998 | 3861.10001 | 99740 | 97790 | 99150 | 97900 | 1.01570 | 98520 | 98200 |
| | GRADIENT | .00063 | -.00004 | -.00020 | .00015 | .00058 | | .00020 | .00003 | -.00008 | .00013 |

RUN NO. 276/ 0 RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|---------|---------|--------|
| .597 | 2.238 | -4.94770 | 2520.00000 | 1980.30000 | 1.09550 | 1.00290 | 1.00070 | 95790 | 1.01390 | 1.00440 | 94190 |
| .597 | 2.262 | -4.92880 | 2521.39999 | 1981.00000 | 1.09890 | 1.00400 | 1.00640 | 96070 | 1.01530 | 1.00380 | 94170 |
| .597 | 4.305 | -4.91990 | 2522.10001 | 1982.39999 | 1.09920 | 1.00370 | 1.00960 | 96230 | 1.01440 | 1.00300 | 94270 |
| .597 | 6.384 | -4.91390 | 2522.10001 | 1981.70000 | 1.09210 | 1.00420 | 1.01370 | 96390 | 1.01340 | 1.00520 | 94450 |
| .597 | 8.471 | -4.90540 | 2522.10001 | 1981.70000 | 1.08760 | 1.00080 | 1.01150 | 96110 | 1.01160 | 1.01120 | 94640 |
| .598 | 10.574 | -4.89610 | 2522.79999 | 1979.60001 | 1.08400 | 99810 | 1.01140 | 96440 | 1.01280 | 1.00610 | 94730 |
| .598 | 12.672 | -4.88270 | 2522.10001 | 1981.00000 | 1.07750 | 99060 | 1.00990 | 96010 | 1.01670 | 1.00220 | 94490 |
| .598 | 14.764 | -4.89160 | 2521.39999 | 1981.70000 | 1.07060 | 98380 | 1.00940 | 95600 | 1.02200 | 1.00370 | 94140 |
| .598 | 16.850 | -4.88420 | 2522.10001 | 1983.00000 | 1.06030 | 97250 | 1.00450 | 95080 | 1.02840 | 1.00370 | 93640 |
| .598 | 18.973 | -4.90200 | 2522.10001 | 1993.20000 | 1.04910 | 96140 | 99960 | 94540 | 1.03670 | 99790 | 92340 |
| .598 | 21.077 | -4.90820 | 2522.10001 | 1983.89999 | 1.03550 | 94610 | 99230 | 93690 | 1.04630 | 99030 | 92340 |
| .597 | 23.157 | -4.91030 | 2522.10001 | 1981.70000 | 1.02310 | 93420 | 98590 | 92950 | 1.05560 | 98050 | 91950 |
| .596 | 25.170 | -4.87610 | 2522.10001 | 1981.00000 | 1.00780 | 92050 | 97660 | 92180 | 1.06370 | 97590 | 91330 |
| .596 | 25.154 | -4.86330 | 2522.10001 | 1982.39999 | 99910 | 91300 | 97200 | 91650 | 1.06630 | 97800 | 89660 |
| | GRADIENT | .00683 | .51610 | .51665 | .00091 | .00028 | .00219 | .00108 | .00012 | -.00034 | .00020 |

RUN NO. 277/ 0 RN/L = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

TABLATED DATA - 0A161 (ARC 11-97-87-09W)

ARC 11-97-87-09W 0A161 ORBITER + PROBES

(AETR46) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = 15.000
AHLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 275/ 0 RN/L = 3.92 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .297 | .175 | -1.87260 | 4105.00000 | 3861.20001 | 1.01440 | 1.00540 | .99790 | .99300 | 1.00390 | 1.00040 | .98760 |
| .297 | 2.154 | -1.84880 | 4105.00000 | 3860.50000 | 1.01530 | 1.00590 | .99820 | .99380 | 1.00410 | .99990 | .98720 |
| .297 | 4.160 | -1.82540 | 4105.00000 | 3860.50000 | 1.01550 | 1.00610 | .99950 | .99410 | 1.00430 | 1.00020 | .98810 |
| .297 | 6.192 | -1.80190 | 4105.00000 | 3861.20001 | 1.01620 | 1.00570 | .99990 | .99420 | 1.00430 | 1.00110 | .98820 |
| .297 | 8.226 | -1.83530 | 4105.00000 | 3861.20001 | 1.01510 | 1.00520 | .99940 | .99390 | 1.00360 | 1.00210 | .98850 |
| .297 | 10.283 | -1.83680 | 4105.00000 | 3861.20001 | 1.01380 | 1.00370 | .99890 | .99330 | 1.00250 | 1.00050 | .98840 |
| .297 | 12.354 | -1.83580 | 4105.00000 | 3861.20001 | 1.01280 | 1.00230 | .99840 | .99280 | 1.00140 | .99880 | .98790 |
| .297 | 14.359 | -1.77350 | 4105.00000 | 3861.20001 | 1.01020 | 1.00050 | .99790 | .99230 | 1.00620 | .99620 | .98710 |
| .297 | 16.470 | -1.83370 | 4105.00000 | 3860.50000 | 1.00870 | .99820 | .99690 | .99100 | 1.00850 | .99390 | .98580 |
| .297 | 18.540 | -1.84450 | 4105.00000 | 3951.20001 | 1.00500 | .99520 | .99520 | .98950 | 1.01050 | .99030 | .98460 |
| .296 | 20.617 | -1.84540 | 4105.00000 | 3952.60001 | 1.00220 | .99280 | .99280 | .98720 | 1.01100 | .98720 | .98300 |
| .297 | 22.655 | -1.84010 | 4105.00000 | 3961.20001 | .99840 | .98950 | .98950 | .98550 | 1.01260 | .98440 | .98010 |
| .297 | 24.695 | -1.81990 | 4105.00000 | 3860.50000 | .99440 | .98530 | .98530 | .98230 | 1.01320 | .98570 | .97900 |
| .297 | 25.698 | -1.80940 | 4104.29999 | 3861.10001 | .99210 | .98310 | .98310 | .98230 | 1.01320 | .98570 | .97900 |
| | GRADIENT | .00933 | -.00004 | -.17522 | .00028 | .00018 | .00040 | .00028 | .00010 | -.00005 | .00013 |

RUN NO. 278/ 0 RN/L = 4.18 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|--------|--------|---------|---------|---------|
| .596 | .184 | -1.85200 | 2520.00000 | 1982.39999 | 1.06340 | 1.02340 | .98770 | .96680 | 1.01450 | 1.00170 | .94520 |
| .596 | 2.269 | -1.85810 | 2520.70001 | 1982.39999 | 1.06330 | 1.02460 | .99590 | .96990 | 1.01440 | .99940 | .94420 |
| .597 | 4.264 | -1.84120 | 2522.10001 | 1982.39999 | 1.06800 | 1.02520 | .99680 | .97178 | 1.01440 | 1.00110 | .94470 |
| .596 | 6.353 | -1.83070 | 2522.10001 | 1983.20000 | 1.06970 | 1.02470 | .99920 | .97320 | 1.01370 | 1.00490 | .94660 |
| .595 | 8.435 | -1.83550 | 2522.10001 | 1983.20000 | 1.06450 | 1.02160 | .99710 | .97260 | 1.01260 | 1.00778 | .94690 |
| .599 | 10.568 | -1.82730 | 2522.10001 | 1979.60001 | 1.06190 | 1.01790 | .99710 | .97260 | 1.01560 | 1.00530 | .94820 |
| .598 | 12.667 | -1.82650 | 2522.10001 | 1981.00000 | 1.05650 | 1.01150 | .99650 | .97290 | 1.01590 | 1.00160 | .94200 |
| .597 | 14.741 | -1.82790 | 2522.10001 | 1982.39999 | 1.04830 | .99430 | .99490 | .96990 | 1.02230 | 1.00180 | .93630 |
| .597 | 16.873 | -1.87510 | 2521.39999 | 1981.00000 | 1.02990 | .98490 | .98930 | .96490 | 1.03140 | .99350 | .93020 |
| .535 | 18.999 | -1.86360 | 2522.10001 | 1984.60001 | 1.02950 | .98160 | .98310 | .95760 | 1.03690 | .98220 | .92190 |
| .596 | 21.118 | -1.85330 | 2522.10001 | 1983.89999 | 1.01470 | .96950 | .97660 | .95070 | 1.04060 | .98220 | .91330 |
| .597 | 23.191 | -1.84920 | 2522.79999 | 1981.70000 | 1.00120 | .95710 | .96930 | .94480 | 1.04530 | .97210 | .89610 |
| .598 | 25.192 | -1.85330 | 2522.10001 | 1981.00000 | .98640 | .94190 | .96960 | .93560 | 1.05220 | .97310 | .88610 |
| .597 | 25.160 | -1.80480 | 2521.39999 | 1981.00000 | .97680 | .93410 | .95540 | .93250 | 1.05650 | .98360 | .88190 |
| | GRADIENT | .00264 | .51232 | -.00002 | .00112 | .00044 | .00228 | .00119 | -.00002 | -.00015 | -.00012 |

(AETR77) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YC
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZC
SCALE = .0300

PARAMETRIC DATA

BETA = .000
AIRON = .000
ELEVON = 15.000
BDFLAP = -7.170

RUN NO. 274/ 0 RN/L = 3.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .298 | .143 | .18390 | 4105.70001 | 3860.50000 | 1.01130 | 1.00880 | .99650 | .99470 | 1.00400 | 1.00140 | .98750 |
| .298 | 2.148 | .20190 | 4105.70001 | 3860.50000 | 1.01168 | 1.00920 | .99730 | .99668 | 1.00440 | 1.00010 | .98710 |
| .297 | 4.160 | .20270 | 4105.70001 | 3861.20001 | 1.01220 | 1.00930 | .99780 | .99600 | 1.00470 | .99960 | .98760 |
| .298 | 6.183 | .20680 | 4105.70001 | 3860.50000 | 1.01290 | 1.00920 | .99820 | .99610 | 1.00420 | .99980 | .98820 |
| .297 | 8.225 | .21270 | 4105.70001 | 3861.20001 | 1.01150 | 1.00850 | .99750 | .99570 | 1.00390 | 1.00090 | .98770 |
| .297 | 10.265 | .21230 | 4105.70001 | 3861.20001 | 1.01060 | 1.00770 | .99690 | .99540 | 1.00350 | 1.00020 | .98930 |
| .297 | 12.304 | .21050 | 4105.70001 | 3861.20001 | 1.00910 | 1.00580 | .99620 | .99480 | 1.00360 | .99920 | .98770 |
| .297 | 14.350 | .22980 | 4105.70001 | 3861.20001 | 1.00700 | 1.00410 | .99620 | .99480 | 1.00430 | .99750 | .98710 |
| .297 | 16.428 | .22870 | 4105.70001 | 3861.20001 | 1.00470 | 1.00190 | .99460 | .99360 | 1.00520 | .99450 | .98640 |
| .297 | 18.489 | .23480 | 4105.70001 | 3861.20001 | 1.00180 | .99580 | .99260 | .99210 | 1.00770 | .99010 | .98460 |
| .297 | 20.571 | .23060 | 4105.70001 | 3861.89999 | .99860 | .99580 | .99110 | .99020 | 1.00880 | .98700 | .98240 |
| .298 | 22.617 | .23240 | 4105.70001 | 3860.50000 | .99520 | .99270 | .98850 | .98820 | 1.01010 | .98570 | .98040 |
| .298 | 24.655 | .24310 | 4105.70001 | 3860.50000 | .99100 | .98900 | .98620 | .98630 | 1.01170 | .98560 | .97930 |
| .298 | 25.631 | .23340 | 4105.70001 | 3860.50000 | .98690 | .98690 | .98470 | .98530 | 1.01250 | .98470 | .97930 |
| GRADIENT | | .00468 | .00000 | .17439 | .00022 | .00012 | .00032 | .00032 | .00017 | -.00040 | .00005 |

RUN NO. 273/ 0 RN/L = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|--------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .596 | .178 | .20810 | 2520.00000 | 1981.70000 | 1.04850 | 1.03810 | .98068 | .97420 | 1.01420 | 1.00400 | .94470 |
| .500 | 2.230 | .22680 | 2537.70001 | 1989.50000 | 1.05330 | 1.04150 | .98660 | .97860 | 1.01820 | 1.00050 | .94650 |
| .502 | 4.285 | .22740 | 2548.29999 | 2010.80000 | 1.05260 | 1.03960 | .98880 | .98130 | 1.01680 | .99790 | .94590 |
| .594 | 6.363 | .23740 | 2555.39999 | 2012.20000 | 1.05440 | 1.03930 | .98990 | .98220 | 1.01690 | 1.00070 | .94750 |
| .595 | 8.454 | .24340 | 2556.10001 | 2012.20000 | 1.04990 | 1.03600 | .99970 | .98030 | 1.01430 | 1.00330 | .94560 |
| .597 | 10.573 | .24340 | 2556.79999 | 2010.10001 | 1.04590 | 1.03250 | .99360 | .98170 | 1.01340 | 1.00780 | .94720 |
| .595 | 12.685 | .23760 | 2555.39999 | 2010.60000 | 1.04080 | 1.02990 | .98930 | .98210 | 1.01350 | 1.00330 | .94780 |
| .594 | 14.751 | .24110 | 2555.39999 | 2012.69999 | 1.03190 | 1.01870 | .98480 | .97920 | 1.01570 | 1.00410 | .94290 |
| .595 | 16.853 | .23530 | 2555.39999 | 2010.80000 | 1.02390 | 1.00980 | .97950 | .97480 | 1.01930 | 1.00160 | .93490 |
| .595 | 18.953 | .23390 | 2555.39999 | 2010.80000 | 1.01390 | .99660 | .97360 | .96430 | 1.02840 | .99330 | .93020 |
| .595 | 21.088 | .22390 | 2555.10001 | 2012.20000 | .99950 | .98660 | .96700 | .95640 | 1.03640 | .98010 | .92370 |
| .595 | 23.170 | .21900 | 2556.79999 | 2012.20000 | .98690 | .97180 | .95860 | .95560 | 1.04030 | .96290 | .91360 |
| .595 | 25.169 | .22900 | 2556.10001 | 2010.80000 | .95990 | .95930 | .94900 | .94930 | 1.04800 | .96730 | .89890 |
| GRADIENT | | .00470 | 6.89000 | 7.06623 | .00100 | .00036 | .00200 | .00173 | .00063 | -.00149 | .00054 |

TABLATED DATA - 0A161 (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A161 ORBITER + PROBES

(AE7R*8) (02 AUG 75)

PARAMETRIC DATA

BETA = 2.000 ELEVON = 15.000
AILLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2692.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LPEF = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 273/ 0 RN/L = 3.92 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PSK/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .299 | .142 | 2.26150 | 4105.70001 | 3860.50000 | 1.00780 | 1.01230 | .99460 | .99670 | 1.00360 | 1.00140 | .98720 |
| .297 | 2.156 | 2.25480 | 4105.70001 | 3861.20001 | 1.00900 | 1.01290 | .99530 | .99750 | 1.00420 | .99860 | .98700 |
| .299 | 4.168 | 2.27720 | 4105.70001 | 3860.50000 | 1.00840 | 1.01310 | .99590 | .99790 | 1.00450 | .99930 | .98720 |
| .297 | 6.204 | 2.28540 | 4105.70001 | 3861.20001 | 1.00910 | 1.01260 | .99600 | .99840 | 1.00440 | .99960 | .98760 |
| .299 | 8.246 | 2.29330 | 4105.70001 | 3860.50000 | 1.00820 | 1.01250 | .99530 | .99780 | 1.00400 | .99970 | .98790 |
| .297 | 10.297 | 2.31030 | 4105.70001 | 3860.50000 | 1.00690 | 1.01150 | .99470 | .99780 | 1.00210 | 1.00200 | .98780 |
| .299 | 12.337 | 2.30980 | 4105.70001 | 3861.89999 | 1.00520 | 1.00970 | .99500 | .99680 | 1.00310 | 1.00200 | .98760 |
| .297 | 14.497 | 2.27160 | 4106.40002 | 3861.20001 | 1.00340 | 1.00740 | .99350 | .99600 | 1.00330 | .99790 | .98760 |
| .299 | 16.577 | 2.25340 | 4106.40002 | 3861.89999 | 1.00110 | 1.00480 | .99180 | .99560 | 1.00300 | .99420 | .98750 |
| .297 | 18.630 | 2.24440 | 4105.70001 | 3861.20001 | .99840 | 1.00250 | .99020 | .99450 | 1.00470 | .99420 | .98750 |
| .299 | 20.678 | 2.23970 | 4105.70001 | 3861.20001 | .99510 | .99920 | .98810 | .99270 | 1.00750 | .98580 | .98270 |
| .297 | 22.722 | 2.25080 | 4105.70001 | 3861.20001 | .99150 | .99610 | .98630 | .99110 | 1.00750 | .98580 | .98270 |
| .299 | 24.726 | 2.27210 | 4105.70001 | 3861.89999 | .98700 | .99150 | .98330 | .98830 | 1.00890 | .98330 | .98090 |
| .297 | 25.730 | 2.28310 | 4105.70001 | 3861.89999 | .98570 | .98030 | .98210 | .98740 | 1.01000 | .98340 | .97970 |
| GRADIENT | | .00390 | .00000 | .00008 | .00015 | .00020 | .00027 | .00030 | .00022 | .00052 | .00000 |

RUN NO. 280/ 0 RN/L = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|---------|--------|--------|---------|---------|--------|
| .595 | .196 | 2.25620 | 2554.00000 | 2010.10001 | 1.03750 | 1.05280 | .97480 | .98360 | 1.01370 | 1.00450 | .94550 |
| .595 | 2.244 | 2.28440 | 2554.70001 | 2010.10001 | 1.03670 | 1.05620 | .97820 | .98570 | 1.01660 | .99770 | .94590 |
| .594 | 4.304 | 2.29860 | 2554.70001 | 2012.20000 | 1.03730 | 1.05420 | .98950 | .98890 | 1.01650 | .99670 | .94690 |
| .594 | 6.386 | 2.30460 | 2554.70001 | 2012.20000 | 1.04010 | 1.05430 | .98270 | .98150 | 1.01570 | 1.00660 | .94580 |
| .595 | 8.493 | 2.30350 | 2555.39999 | 2009.39999 | 1.03610 | 1.05270 | .98350 | .99090 | 1.01520 | 1.00180 | .94780 |
| .594 | 10.606 | 2.30700 | 2555.39999 | 2012.20000 | 1.03030 | 1.04710 | .98210 | .98880 | 1.01780 | 1.00470 | .94580 |
| .595 | 12.737 | 2.28490 | 2556.10001 | 2012.20000 | 1.02350 | 1.04130 | .98200 | .99220 | 1.01280 | .99930 | .94490 |
| .595 | 14.827 | 2.30760 | 2556.10001 | 2008.00000 | 1.01750 | 1.03320 | .97520 | .98610 | 1.01050 | 1.00520 | .94480 |
| .597 | 16.976 | 2.31070 | 2556.10001 | 2011.50000 | 1.01010 | 1.02690 | .98620 | .97940 | 1.01420 | 1.00320 | .93670 |
| .595 | 19.093 | 2.29780 | 2556.10001 | 2010.10001 | .99680 | 1.01450 | .96290 | .97500 | 1.01730 | .99930 | .92960 |
| .597 | 21.192 | 2.28910 | 2556.79999 | 2010.10001 | .99330 | 1.00200 | .95610 | .97300 | 1.02170 | .99700 | .92030 |
| .593 | 23.251 | 2.30110 | 2556.10001 | 2015.00000 | .96980 | .98670 | .94550 | .96450 | 1.02700 | .95310 | .91710 |
| .595 | 25.216 | 2.30870 | 2556.79999 | 2010.80000 | .95320 | .97360 | .93790 | .95970 | 1.03810 | .96630 | .89890 |
| .595 | 26.189 | 2.31470 | 2556.10001 | 2011.50000 | .94550 | .96560 | .93290 | .95500 | 1.04090 | .97420 | .88650 |
| GRADIENT | | .01032 | .17023 | .51174 | .00005 | .00034 | .00139 | .00127 | .00068 | .00197 | .00010 |

UNCLASSIFIED

TABLULATED DATA - 0A161 (ARC 11-97-87-09H)
ARC 11-97-87-09H 0A161 ORBITER + PROBES

(AE7R49) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = 15.000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT | RUN NO. | 272/0 | RWL | 3.53 | GRADIENT INTERVAL | -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|-------|-----|------|-------------------|--------|------|---------|---------|--------|---------|---------|---------|--------|
| .297 | 1.178 | 5.29790 | 4107.79999 | 3864.00000 | | | | | | | | 1.00220 | 1.01740 | .99230 | .99930 | 1.00290 | 1.00000 | .96630 |
| .298 | 2.175 | 5.33200 | 4107.79999 | 3861.89999 | | | | | | | | 1.00340 | 1.01810 | .99290 | 1.00020 | 1.00330 | .99900 | .96670 |
| .299 | 4.195 | 5.34130 | 4107.79999 | 3861.89999 | | | | | | | | 1.00350 | 1.01870 | .99320 | 1.00100 | 1.00330 | .99990 | .96730 |
| .297 | 5.235 | 5.34570 | 4107.09998 | 3862.60001 | | | | | | | | 1.00340 | 1.01800 | .99310 | 1.00110 | 1.00290 | 1.00090 | .96600 |
| .297 | 8.278 | 5.35220 | 4107.09998 | 3863.29999 | | | | | | | | 1.00220 | 1.01750 | .99270 | 1.00100 | 1.00260 | 1.00140 | .96640 |
| .292 | 10.351 | 5.34950 | 4107.09999 | 3861.89999 | | | | | | | | 1.00130 | 1.01640 | .99250 | 1.00090 | 1.00210 | 1.00160 | .96570 |
| .299 | 12.419 | 5.35440 | 4107.09999 | 3860.50000 | | | | | | | | 1.00030 | 1.01540 | .99170 | 1.00070 | 1.00260 | 1.00110 | .96700 |
| .299 | 14.496 | 5.34030 | 4107.09999 | 3860.50000 | | | | | | | | .99850 | 1.01340 | .99060 | 1.00010 | 1.00250 | .99820 | .96750 |
| .299 | 16.558 | 5.32610 | 4107.09999 | 3860.50000 | | | | | | | | .99580 | 1.01100 | .98920 | .99760 | 1.00390 | .99000 | .96650 |
| .293 | 18.623 | 5.32240 | 4107.09999 | 3861.20001 | | | | | | | | .99300 | 1.00800 | .98690 | .99630 | 1.00410 | .98670 | .96570 |
| .297 | 20.670 | 5.32220 | 4106.40002 | 3861.89999 | | | | | | | | .99040 | 1.00490 | .98490 | .99510 | 1.00490 | .98500 | .96410 |
| .297 | 22.687 | 5.32750 | 4106.40002 | 3862.60001 | | | | | | | | .98640 | 1.00130 | .98250 | .99310 | 1.00590 | .98230 | .96320 |
| .297 | 24.708 | 5.34750 | 4106.40002 | 3861.89999 | | | | | | | | .98290 | .99830 | .97990 | .99270 | 1.00530 | .98160 | .96280 |
| .298 | 25.700 | 5.35940 | 4106.40002 | 3861.20001 | | | | | | | | .98060 | .99650 | .97850 | .99210 | 1.00630 | .98160 | .96250 |
| GRADIENT | | .01094 | .00000 | -.52173 | | | | | | | | .00032 | .00022 | .00042 | .00010 | -.00002 | -.00002 | .00025 |

| MACH | ALPHA | BETA | PT | PT | RUN NO. | 281/0 | RWL | 4.19 | GRADIENT INTERVAL | -5.00/ | 5.00 | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|-------|-----|------|-------------------|--------|------|---------|---------|--------|---------|---------|---------|---------|
| .555 | .213 | 5.34470 | 2555.39999 | 2010.00001 | | | | | | | | 1.01170 | 1.07410 | .96460 | .99360 | 1.01130 | .99870 | .94360 |
| .595 | 2.259 | 5.36160 | 2555.39999 | 2010.80000 | | | | | | | | 1.01520 | 1.07760 | .96830 | .99860 | 1.01270 | .99540 | .94460 |
| .594 | 4.327 | 5.37330 | 2555.39999 | 2012.89999 | | | | | | | | 1.01690 | 1.07640 | .96910 | 1.00110 | 1.01220 | .99790 | .94360 |
| .594 | 6.412 | 5.37270 | 2556.10001 | 2013.60001 | | | | | | | | 1.01730 | 1.07510 | .96940 | 1.00390 | 1.01200 | 1.00630 | .94040 |
| .597 | 8.516 | 5.37360 | 2556.10001 | 2009.39999 | | | | | | | | 1.01340 | 1.07780 | .97250 | 1.00440 | 1.01020 | 1.00830 | .94320 |
| .556 | 10.640 | 5.35630 | 2556.79999 | 2011.50000 | | | | | | | | 1.00940 | 1.06980 | .96910 | 1.00390 | 1.00590 | 1.00310 | .94360 |
| .597 | 12.740 | 5.35820 | 2556.79999 | 2010.10001 | | | | | | | | 1.00450 | 1.06560 | .96970 | 1.00750 | 1.00650 | .99340 | .93980 |
| .594 | 14.826 | 5.36450 | 2556.10001 | 2010.60001 | | | | | | | | .99390 | 1.05510 | .95020 | 1.00310 | 1.00650 | .99740 | .93530 |
| .596 | 15.928 | 5.38240 | 2556.10001 | 2010.60000 | | | | | | | | .98690 | 1.04860 | .95530 | 1.00030 | 1.01680 | .99020 | .94070 |
| .597 | 19.049 | 5.39970 | 2556.10001 | 2008.70000 | | | | | | | | .97550 | 1.03940 | .95160 | 1.00000 | 1.01780 | .98920 | .93360 |
| .596 | 21.148 | 5.39620 | 2556.10001 | 2010.10001 | | | | | | | | .96020 | 1.02580 | .94220 | .99020 | 1.01660 | .98320 | .92380 |
| .597 | 23.216 | 5.40140 | 2556.79999 | 2010.10001 | | | | | | | | .94680 | 1.01200 | .93280 | .98530 | 1.02010 | .94760 | .92290 |
| .595 | 25.195 | 5.39820 | 2557.50000 | 2010.50000 | | | | | | | | .93350 | .99920 | .92300 | .97710 | 1.02440 | .96340 | .90440 |
| .595 | 26.157 | 5.40820 | 2556.79999 | 2010.60000 | | | | | | | | .92350 | .99240 | .91680 | .97390 | 1.02560 | .96810 | .88450 |
| GRADIENT | | .00710 | .00000 | .68116 | | | | | | | | .00126 | .00156 | .00109 | .00182 | -.00022 | -.00019 | -.00000 |

TABULATED DATA - OAI6L (ARC 11-97-87-094)
ARC 11-97-87-094 OAI6L ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = 0000.0000 IN. Y0
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = 0.300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .080 BOFLAP = -7.170

RUN NO. 24/ 0 RNVL = 4.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|--------|---------|--------|--------|---------|--------|
| .560 | .142 | -4.91900 | 2547.60000 | 2058.60001 | 1.07120 | .99650 | 1.00120 | .96290 | .95080 | .95080 | .95680 |
| .561 | 2.164 | -4.92060 | 2549.29999 | 2058.20001 | 1.07440 | .99810 | 1.00530 | .96570 | .95560 | .94990 | .95950 |
| .560 | 4.200 | -4.92660 | 2549.00000 | 2059.60001 | 1.07570 | .99830 | 1.00790 | .96770 | .95550 | .95050 | .95960 |
| .561 | 6.260 | -4.91930 | 2549.70001 | 2058.89999 | 1.07520 | .99710 | 1.01120 | .96850 | .95580 | .95010 | .95830 |
| .560 | 8.337 | -4.91250 | 2549.00000 | 2059.60001 | 1.07390 | .99480 | 1.01160 | .96860 | .95520 | .95260 | .96160 |
| .561 | 10.431 | -4.90270 | 2549.00000 | 2058.89999 | 1.07100 | .99120 | 1.01160 | .96730 | .95470 | .95330 | .96309 |
| .560 | 12.529 | -4.87450 | 2549.00000 | 2059.60001 | 1.06540 | .98620 | 1.00860 | .96620 | .95330 | .95290 | .96309 |
| .561 | 14.626 | -4.8210 | 2549.70001 | 2059.60001 | 1.05910 | .97090 | 1.00740 | .96170 | .95180 | .95220 | .96100 |
| .560 | 16.707 | -4.85300 | 2549.70001 | 2060.29999 | 1.04960 | .96050 | 1.00270 | .95730 | .94860 | .94820 | .95780 |
| .560 | 18.821 | -4.89620 | 2549.00000 | 2060.29999 | 1.04030 | .94980 | .98920 | .95160 | .94500 | .93940 | .95160 |
| .560 | 20.918 | -4.89780 | 2549.00000 | 2059.60001 | 1.02940 | .94980 | .99270 | .94460 | .94250 | .93940 | .94280 |
| .561 | 23.003 | -4.89660 | 2549.70001 | 2058.89999 | 1.01480 | .93820 | .98750 | .93950 | .93910 | .93700 | .94040 |
| .560 | 25.083 | -4.89100 | 2549.70001 | 2061.70001 | 1.00110 | .92240 | .97750 | .92790 | .93510 | .95740 | .93463 |
| .559 | GRADIENT | -.00187 | .34501 | .00079 | .00111 | .00063 | .00165 | .00118 | .00005 | -.00007 | .00020 |

RUN NO. 33/ 0 RNVL = 4.48 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| .730 | .115 | -4.95010 | 2438.70001 | 1771.39999 | 1.13340 | .99980 | 1.00290 | .93340 | .92250 | .91460 | .92660 |
| .731 | 2.170 | -4.94910 | 2439.39999 | 1708.30000 | 1.13630 | 1.00120 | 1.01020 | .94010 | .92180 | .91470 | .92960 |
| .731 | 4.236 | -4.95170 | 2438.70001 | 1769.30000 | 1.13870 | 1.00850 | 1.01620 | .94340 | .92260 | .91800 | .92950 |
| .730 | 6.337 | -4.94840 | 2438.70001 | 1710.00000 | 1.13860 | 1.00780 | 1.02380 | .94780 | .92100 | .91870 | .93310 |
| .732 | 8.452 | -4.93230 | 2439.39999 | 1708.60001 | 1.13710 | 1.00670 | 1.02610 | .95040 | .92030 | .91810 | .93400 |
| .731 | 10.577 | -4.92540 | 2439.39999 | 1770.00000 | 1.13110 | .98240 | 1.02590 | .94970 | .91970 | .91990 | .93400 |
| .731 | 12.697 | -4.90740 | 2439.39999 | 1709.30000 | 1.12520 | .96650 | 1.02590 | .94740 | .91860 | .91770 | .93330 |
| .731 | GRADIENT | -.00039 | -.00027 | -.50923 | .00129 | .00085 | .00323 | .00243 | .00002 | .00083 | .00070 |

REFERENCE DATA

SREF = 2693.0000 SQ.FT. XMRP = 1076.6802 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVOM = .000
 AILRON = .000 BDFLAP = -7.178

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|--------|---------|--------|
| 1.535 | .012 | -5.57200 | 1505.50000 | 378.46000 | 2.05010 | 1.50680 | 1.37770 | 1.04780 | .57410 | .56800 | .54270 |
| 1.536 | 2.012 | -5.57320 | 1511.39999 | 379.70000 | 2.05170 | 1.49150 | 1.39320 | 1.05020 | .57430 | .56900 | .54440 |
| 1.536 | 6.155 | -5.57350 | 1511.39999 | 379.70000 | 2.04670 | 1.46670 | 1.40890 | 1.05340 | .57390 | .56320 | .54770 |
| 1.536 | 8.234 | -5.57270 | 1512.10001 | 379.88000 | 2.07280 | 1.45210 | 1.41110 | 1.06260 | .56830 | .56420 | .52910 |
| 1.536 | 10.305 | -5.56930 | 1512.10001 | 379.89000 | 2.01650 | 1.43490 | 1.40040 | 1.06530 | .56800 | .56500 | .54830 |
| 1.536 | 12.346 | -5.57220 | 1511.39999 | 379.70000 | 1.97860 | 1.39720 | 1.39720 | 1.06530 | .56050 | .56050 | .50790 |
| 1.536 | 14.441 | -5.57420 | 1510.00000 | 379.35000 | 1.97860 | 1.38620 | 1.38900 | 1.05570 | .53110 | .53110 | .47970 |
| 1.535 | 16.543 | -5.57480 | 1512.10001 | 379.89000 | 1.99910 | 1.37090 | 1.37690 | 1.04020 | .53070 | .52980 | .48260 |
| 1.535 | 18.678 | -5.57670 | 1512.10001 | 379.88000 | 1.92900 | 1.35090 | 1.37420 | 1.03090 | .53070 | .53910 | .47050 |
| 1.535 | 20.799 | -5.57430 | 1512.10001 | 380.06000 | 1.86230 | 1.30390 | 1.37360 | .97700 | .49860 | .49330 | .49070 |
| 1.535 | 22.856 | -5.57170 | 1513.60001 | 380.24000 | 1.84130 | 1.27710 | 1.37470 | .95860 | .47560 | .44340 | .44300 |
| 1.535 | 24.856 | -5.57570 | 1513.60001 | 380.24000 | 1.82340 | 1.26670 | 1.37830 | .96160 | .46730 | .43360 | .43660 |
| 1.535 | 25.837 | -5.57570 | 1513.60001 | 380.24000 | 1.82340 | 1.26670 | 1.37830 | .96160 | .46730 | .43360 | .43660 |
| 1.535 | GRADIENT | -.00060 | 2.44963 | .61991 | .00080 | -.00770 | .00775 | .00120 | .00010 | -.00200 | .00065 |

RUN NO. 337/ 0 RVL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.995 | -.020 | -5.93150 | 1832.50000 | 235.57000 | 2.80250 | 1.82070 | 1.65230 | 1.10300 | .47630 | .44930 | .43270 |
| 1.996 | 1.955 | -5.92900 | 1831.80000 | 235.48000 | 2.78220 | 1.83800 | 1.65480 | 1.11840 | .46770 | .43830 | .42100 |
| 1.996 | 4.020 | -5.92790 | 1831.10001 | 235.39000 | 2.77610 | 1.80710 | 1.66820 | 1.12330 | .46380 | .42900 | .40660 |
| 1.996 | 6.082 | -5.92800 | 1833.20000 | 235.56000 | 2.76780 | 1.78510 | 1.66840 | 1.12820 | .46300 | .43750 | .42220 |
| 1.995 | 8.145 | -5.92780 | 1831.80000 | 235.48000 | 2.76280 | 1.78520 | 1.68020 | 1.13140 | .45690 | .45160 | .42300 |
| 1.995 | 10.202 | -5.92520 | 1831.20000 | 235.48000 | 2.73540 | 1.76570 | 1.68520 | 1.13360 | .44540 | .45590 | .43670 |
| 1.995 | 12.239 | -5.92480 | 1832.50000 | 235.57000 | 2.70650 | 1.74540 | 1.68400 | 1.13030 | .43370 | .45150 | .40880 |
| 1.995 | 14.332 | -5.92330 | 1831.80000 | 235.48000 | 2.68530 | 1.72140 | 1.68460 | 1.11790 | .42630 | .43760 | .40150 |
| 1.995 | 16.464 | -5.92260 | 1831.80000 | 235.48000 | 2.68010 | 1.69740 | 1.68910 | 1.10590 | .42780 | .42620 | .38620 |
| 1.995 | 18.548 | -5.92340 | 1831.80000 | 235.48000 | 2.64770 | 1.67700 | 1.67330 | 1.09270 | .43010 | .40230 | .38100 |
| 1.995 | 20.569 | -5.92080 | 1832.50000 | 235.57000 | 2.61040 | 1.64960 | 1.67000 | 1.08060 | .40110 | .36340 | .38110 |
| 1.995 | 22.649 | -5.91880 | 1832.50000 | 235.57000 | 2.54620 | 1.60750 | 1.72660 | 1.06500 | .38010 | .36170 | .35540 |
| 1.995 | 24.710 | -5.91610 | 1832.50000 | 235.57000 | 2.47900 | 1.55290 | 1.73490 | 1.02650 | .37350 | .35170 | .35170 |
| 1.995 | 25.733 | -5.91490 | 1832.50000 | 235.57000 | 2.47700 | 1.52360 | 1.71760 | 1.01540 | .36650 | .34020 | .34170 |
| 1.995 | GRADIENT | -.00089 | -.34647 | -.04455 | -.00339 | -.00551 | .00396 | .00500 | -.00308 | .06595 | -.00646 |

RUN NO. 340/ 0 RVL = 3.06 GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - 0A16J (ARC 11-97-87-894)

ARC 11-97-87-094 0A16J ORBITER

(AETR56) (02 AUG 76)

REFERENCE DATA

SPEF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

RUN NO. 25/ 0 RVAL = 4.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|------|----------|----------|-----------|-----------|---------|---------|--------|--------|---------|--------|---------|
| .560 | .090 | -1.84650 | 2547.6000 | 2058.8999 | 1.05300 | 1.01430 | .98100 | .97150 | .95700 | .95131 | .95160 |
| .561 | 2.125 | -1.84810 | 2548.2999 | 2057.5000 | 1.05540 | 1.01690 | .98470 | .97290 | .95730 | .95350 | .96200 |
| .561 | 4.171 | -1.83970 | 2548.2999 | 2058.2000 | 1.05740 | 1.01800 | .98790 | .97600 | .95680 | .95290 | .96120 |
| .561 | 6.233 | -1.84630 | 2548.2999 | 2057.5000 | 1.05650 | 1.01810 | .98960 | .97940 | .95680 | .95330 | .96340 |
| .561 | 8.308 | -1.84710 | 2549.0000 | 2058.2000 | 1.05510 | 1.01940 | .99360 | .97910 | .95670 | .95390 | .96260 |
| .561 | 10.404 | -1.84630 | 2549.0000 | 2058.2000 | 1.05160 | 1.01080 | .99920 | .97600 | .95550 | .95410 | .96390 |
| .561 | 12.514 | -1.84140 | 2549.0000 | 2058.8999 | 1.04730 | 1.00460 | .99700 | .97300 | .95460 | .95360 | .96390 |
| .561 | 14.605 | -1.79950 | 2549.0000 | 2059.6000 | 1.03900 | .99880 | .99410 | .97300 | .95280 | .95440 | .96990 |
| .562 | 16.721 | -1.86270 | 2549.0000 | 2056.7999 | 1.03280 | .99140 | .99220 | .97050 | .95100 | .95740 | .96740 |
| .560 | 18.835 | -1.86640 | 2548.2999 | 2059.8999 | 1.02090 | .98540 | .98530 | .96350 | .94570 | .95800 | .96920 |
| .561 | 20.941 | -1.86960 | 2548.2999 | 2059.8999 | 1.01020 | .97770 | .97830 | .95910 | .94110 | .95620 | .95910 |
| .559 | 23.025 | -1.84930 | 2549.0000 | 2059.6000 | .98500 | .95440 | .97650 | .95020 | .93400 | .95130 | .95310 |
| .560 | 25.092 | -1.82490 | 2549.0000 | 2059.6000 | .98010 | .94080 | .96180 | .94130 | .92980 | .94870 | .95320 |
| .561 | 26.061 | -1.78350 | 2548.2999 | 2058.2000 | .97460 | .93520 | .95850 | .93890 | .92590 | .93940 | .95120 |
| | GRADIENT | .00167 | .17139 | -.17103 | .00108 | .00091 | .00169 | .00154 | -.00005 | .00019 | -.00010 |

RUN NO. 338/ 0 RVAL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PSS/P | PS6/P | PS7/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.556 | .031 | -2.54540 | 1529.8000 | 384.32000 | 1.92050 | 1.62870 | 1.27860 | 1.09890 | .98800 | .98010 | .95840 |
| 1.556 | 2.019 | -2.54570 | 1529.1000 | 384.15000 | 1.92140 | 1.62900 | 1.28810 | 1.10410 | .98720 | .97510 | .95340 |
| 1.556 | 4.098 | -2.54550 | 1530.2000 | 384.68900 | 1.92150 | 1.60880 | 1.29940 | 1.11660 | .98140 | .96580 | .95470 |
| 1.556 | 6.178 | -2.54500 | 1530.5000 | 384.50000 | 1.90760 | 1.61130 | 1.30740 | 1.11950 | .98080 | .96720 | .96030 |
| 1.556 | 8.240 | -2.54660 | 1529.8000 | 384.32000 | 1.90370 | 1.58860 | 1.30240 | 1.12230 | .97100 | .95740 | .94690 |
| 1.556 | 10.306 | -2.54430 | 1530.5000 | 384.32000 | 1.88330 | 1.56930 | 1.30170 | 1.13090 | .95740 | .95220 | .93470 |
| 1.556 | 12.347 | -2.54450 | 1529.8000 | 384.32000 | 1.86210 | 1.55260 | 1.29720 | 1.13420 | .94710 | .94420 | .92470 |
| 1.556 | 14.439 | -2.54140 | 1530.5000 | 384.50000 | 1.84430 | 1.53070 | 1.28700 | 1.12950 | .93350 | .93200 | .91210 |
| 1.556 | 16.581 | -2.54290 | 1529.8000 | 384.32000 | 1.81780 | 1.50440 | 1.27580 | 1.11750 | .92710 | .92480 | .90210 |
| 1.555 | 18.676 | -2.53940 | 1529.1000 | 384.15000 | 1.78700 | 1.47430 | 1.27140 | 1.10970 | .92170 | .91900 | .89350 |
| 1.556 | 20.709 | -2.53540 | 1533.39299 | 385.21000 | 1.76380 | 1.44310 | 1.26890 | 1.08690 | .91630 | .91560 | .88900 |
| 1.556 | 22.795 | -2.53390 | 1534.1000 | 385.57000 | 1.74290 | 1.42690 | 1.26800 | 1.06690 | .90590 | .90660 | .87900 |
| 1.556 | 24.860 | -2.53210 | 1534.8000 | 385.57000 | 1.71440 | 1.39580 | 1.25750 | 1.04590 | .89150 | .89330 | .86100 |
| 1.556 | 25.891 | -2.52850 | 1538.30000 | 385.46000 | 1.69900 | 1.37860 | 1.24670 | 1.02340 | .88360 | .88610 | .84610 |
| | GRADIENT | -.00002 | .34927 | -.08978 | .00024 | -.00491 | .00512 | .00337 | -.00163 | -.00352 | -.00114 |

(AETRES) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2600.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.470

PARAMETRIC DATA

RUN NO. 3 1 / 0 RVL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | P55/P | P56/P | P57/P |
|-------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| 1.996 | -.022 | -2.88920 | 1833.20000 | 235.66000 | 2.62150 | 2.03370 | 1.48780 | 1.19910 | .47810 | .45030 | .43980 |
| 1.996 | 1.963 | -2.89100 | 1833.20000 | 235.66000 | 2.61180 | 2.01730 | 1.49680 | 1.21570 | .47740 | .46010 | .44130 |
| 1.996 | 4.024 | -2.89970 | 1833.50000 | 235.57000 | 2.60930 | 2.00730 | 1.50428 | 1.23588 | .48338 | .47130 | .42860 |
| 1.996 | 6.082 | -2.86320 | 1833.20000 | 235.66000 | 2.57080 | 1.99338 | 1.50580 | 1.24570 | .48190 | .46190 | .44090 |
| 1.996 | 8.143 | -2.88690 | 1833.20000 | 235.66000 | 2.57440 | 1.98280 | 1.50210 | 1.24800 | .47360 | .45340 | .43510 |
| 1.996 | 10.201 | -2.88980 | 1833.20000 | 235.66000 | 2.54940 | 1.95950 | 1.49830 | 1.24960 | .46110 | .45260 | .43550 |
| 1.996 | 12.234 | -2.88950 | 1833.20000 | 235.66000 | 2.53690 | 1.94390 | 1.49530 | 1.24650 | .44730 | .43720 | .41720 |
| 1.996 | 14.322 | -2.88650 | 1833.20000 | 235.66000 | 2.50400 | 1.92180 | 1.49320 | 1.24290 | .43310 | .38350 | .41650 |
| 1.996 | 16.455 | -2.88490 | 1834.00000 | 235.75000 | 2.45440 | 1.89340 | 1.53220 | 1.21020 | .42690 | .38930 | .41940 |
| 1.996 | 18.540 | -2.88260 | 1832.50000 | 235.57000 | 2.42810 | 1.85830 | 1.52596 | 1.20880 | .42700 | .38410 | .40670 |
| 1.996 | 20.559 | -2.88050 | 1832.50000 | 235.57000 | 2.40730 | 1.82330 | 1.51840 | 1.20490 | .41010 | .37630 | .40640 |
| 1.996 | 22.642 | -2.87670 | 1832.50000 | 235.57000 | 2.36760 | 1.80300 | 1.51610 | 1.21470 | .39510 | .36850 | .38910 |
| 1.996 | 24.702 | -2.87470 | 1833.20000 | 235.65000 | 2.30320 | 1.74440 | 1.50580 | 1.20240 | .38280 | .35370 | .36650 |
| 1.996 | 25.727 | -2.87310 | 1833.50000 | 235.57000 | 2.26430 | 1.72660 | 1.49740 | 1.18246 | .38610 | .36220 | .35450 |
| | GRADIENT | | -.00612 | -.02239 | -.00300 | -.00652 | -.00562 | -.00908 | -.00130 | .00519 | -.02282 |

(AETR57) (22 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVOM = .000
AIRLON = .008 BDFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-894)

ARC 11-97-87-894 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 938.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 26/ 0 R/V/L = 4.02 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|--------|------------|------------|---------|---------|--------|--------|---------|--------|--------|
| .550 | .085 | .19720 | 2546.89999 | 2058.89998 | 1.03880 | 1.02710 | .98310 | .97950 | .95710 | .95210 | .96130 |
| .550 | 2.122 | .20750 | 2545.89999 | 2058.20701 | 1.04060 | 1.02990 | .98750 | .98190 | .95730 | .95260 | .96072 |
| .551 | 4.171 | .20970 | 2547.60001 | 2058.20001 | 1.04320 | 1.03090 | .98970 | .98440 | .95700 | .95270 | .96170 |
| .550 | 6.231 | .20960 | 2547.60001 | 2058.89999 | 1.04290 | 1.02980 | .98990 | .98390 | .95630 | .95290 | .96220 |
| .551 | 8.311 | .21690 | 2547.60001 | 2058.20001 | 1.04090 | 1.02820 | .98970 | .98570 | .95670 | .95330 | .96220 |
| .550 | 10.397 | .21480 | 2548.29399 | 2059.60001 | 1.03780 | 1.02390 | .98950 | .98530 | .95580 | .95240 | .96140 |
| .551 | 12.478 | .21150 | 2548.29399 | 2058.89999 | 1.03570 | 1.01850 | .98920 | .98420 | .95540 | .95240 | .96080 |
| .551 | 14.583 | .22740 | 2543.00000 | 2058.89999 | 1.02530 | 1.01180 | .98950 | .98120 | .95410 | .95160 | .96300 |
| .551 | 16.688 | .22060 | 2549.00000 | 2061.00000 | 1.01810 | 1.00410 | .98920 | .97950 | .95750 | .95460 | .96680 |
| .553 | 18.794 | .21940 | 2549.00000 | 2058.89999 | 1.01630 | .99310 | .97520 | .96780 | .95430 | .95100 | .96460 |
| .551 | 20.901 | .20740 | 2549.00000 | 2058.89999 | .95600 | .92990 | .9160 | .90300 | .93400 | .93000 | .93400 |
| .553 | 22.986 | .20550 | 2549.00000 | 2061.70001 | .98180 | .95660 | .95140 | .93540 | .93590 | .93400 | .93980 |
| .550 | 25.057 | .21320 | 2549.00000 | 2059.60001 | .96720 | .95550 | .95310 | .93540 | .93400 | .93400 | .93980 |
| .561 | 26.046 | .16600 | 2549.00000 | 2058.89999 | .96200 | .94830 | .94520 | .94660 | .92910 | .92680 | .92680 |
| | GRADIENT | .00306 | .17143 | -.17114 | .00108 | .00093 | .00161 | .00144 | -.00002 | .00015 | .00010 |

RUN NO. 342/ 0 R/V/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.996 | -.023 | -.84120 | 1834.73000 | 235.84000 | 2.44220 | 2.17510 | 1.35870 | 1.30190 | 1.47700 | 1.45570 | 1.44470 |
| 1.996 | 1.955 | -.84220 | 1835.39999 | 235.94000 | 2.43970 | 2.16450 | 1.38170 | 1.31570 | 1.46660 | 1.45560 | 1.45210 |
| 1.996 | 4.020 | -.84280 | 1835.39999 | 235.94000 | 2.44030 | 2.14640 | 1.39580 | 1.31950 | 1.45450 | 1.45650 | 1.45650 |
| 1.996 | 6.080 | -.84260 | 1836.10001 | 236.03000 | 2.41960 | 2.12790 | 1.40220 | 1.32430 | 1.45620 | 1.45650 | 1.44790 |
| 1.996 | 8.138 | -.84160 | 1836.10001 | 236.03000 | 2.40320 | 2.10880 | 1.40380 | 1.32870 | 1.44190 | 1.44190 | 1.43730 |
| 1.996 | 10.197 | -.84270 | 1835.39999 | 235.94000 | 2.36850 | 2.09780 | 1.41180 | 1.33150 | 1.43240 | 1.43240 | 1.43240 |
| 1.996 | 12.231 | -.84080 | 1836.10001 | 236.03000 | 2.36850 | 2.07320 | 1.40600 | 1.32940 | 1.41910 | 1.41910 | 1.42370 |
| 1.996 | 14.321 | -.83910 | 1836.80000 | 236.12000 | 2.34930 | 2.05050 | 1.41000 | 1.32500 | 1.40400 | 1.40400 | 1.42690 |
| 1.996 | 16.459 | -.83750 | 1835.39999 | 235.94000 | 2.31160 | 2.02300 | 1.41100 | 1.32220 | 1.39220 | 1.39220 | 1.42690 |
| 1.996 | 18.545 | -.83530 | 1835.10001 | 236.03000 | 2.27710 | 2.00280 | 1.39740 | 1.30640 | 1.37620 | 1.37620 | 1.42690 |
| 1.996 | 20.646 | -.83330 | 1837.50000 | 236.21000 | 2.19300 | 1.94140 | 1.37940 | 1.31500 | 1.35880 | 1.35880 | 1.42690 |
| 1.996 | 22.745 | -.82670 | 1838.99999 | 236.39000 | 2.12960 | 1.88850 | 1.35660 | 1.30190 | 1.34680 | 1.34680 | 1.42690 |
| 1.996 | 24.775 | -.82420 | 1837.50000 | 236.21000 | 2.09850 | 1.85870 | 1.36440 | 1.30140 | 1.32180 | 1.32180 | 1.42690 |
| 1.996 | 26.811 | -.80040 | .17191 | .02456 | -.00046 | -.00711 | .00695 | .00434 | -.00276 | -.00276 | -.00299 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(AE7RSB) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

REFERENCE DATA
 SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 ZREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 ATLRON = .000 BDFLAP = -7.170

RUN NO. 27/ 0 RN/L = 4.02 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|------------|---------|---------|--------|--------|---------|---------|---------|
| .561 | .100 | 2.25060 | 2846.89999 | 2057.50000 | 1.02760 | 1.04070 | .97630 | .98470 | .95780 | .95360 | .96170 |
| .561 | .133 | 2.28040 | 2547.60001 | 2056.79999 | 1.02770 | 1.04390 | .98110 | .98990 | .95700 | .95380 | .96030 |
| .561 | .165 | 2.29430 | 2547.60001 | 2058.20001 | 1.02880 | 1.04410 | .98270 | .99210 | .95510 | .95280 | .95110 |
| | GRADIENT | .01059 | .17105 | .17210 | .00029 | .00083 | .00108 | .00181 | -.00042 | -.00020 | -.00015 |

RUN NO. 343/ 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|------|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| .996 | -.027 | 1.22520 | 1838.20000 | 236.30000 | 2.26910 | 2.30800 | 1.27450 | 1.39010 | 4.7490 | 4.8160 | 4.2990 |
| .996 | 1.964 | 1.23900 | 1837.50000 | 235.21000 | 2.25640 | 2.29780 | 1.28470 | 1.40630 | 4.6550 | 4.6280 | 4.3050 |
| .996 | 4.026 | 1.22270 | 1838.20000 | 236.30000 | 2.25570 | 2.27810 | 1.29100 | 1.41260 | 4.7190 | 4.4180 | 4.3210 |
| .996 | 5.083 | 1.22200 | 1837.50000 | 235.21000 | 2.25600 | 2.25930 | 1.30130 | 1.42210 | 4.7900 | 4.3950 | 4.4600 |
| .996 | 9.141 | 1.23130 | 1838.20000 | 236.30000 | 2.25680 | 2.24330 | 1.30390 | 1.41940 | 4.7540 | 4.3190 | 4.4760 |
| .996 | 10.202 | 1.26820 | 1837.50000 | 236.21000 | 2.23690 | 2.22340 | 1.29760 | 1.42890 | 4.5500 | 4.0700 | 4.2650 |
| .996 | 12.239 | 1.26760 | 1838.20000 | 236.32000 | 2.21200 | 2.20600 | 1.29190 | 1.43060 | 4.4310 | 3.7850 | 4.0790 |
| .996 | 14.324 | 1.26890 | 1837.50000 | 236.30000 | 2.17750 | 2.19060 | 1.28110 | 1.42960 | 4.2430 | 3.7390 | 4.1510 |
| .996 | 16.460 | 1.26700 | 1839.20000 | 236.30000 | 2.14420 | 2.16210 | 1.27760 | 1.41930 | 4.1590 | 3.7600 | 3.8500 |
| .996 | 18.545 | 1.27830 | 1837.50000 | 236.21000 | 2.11000 | 2.13990 | 1.27580 | 1.41840 | 4.0210 | 3.5490 | 3.7440 |
| .996 | 20.561 | 1.28240 | 1838.20000 | 236.30000 | 2.09560 | 2.10650 | 1.26870 | 1.41640 | 3.9580 | 3.3870 | 3.4770 |
| .996 | 22.641 | 1.27670 | 1837.50000 | 236.21000 | 2.03740 | 2.07850 | 1.25180 | 1.43110 | 3.8360 | 3.2950 | 3.4460 |
| .996 | 24.702 | 1.27740 | 1837.50000 | 236.21000 | 1.97590 | 2.04160 | 1.22870 | 1.42590 | 3.8360 | 3.2730 | 3.2430 |
| .996 | 25.728 | 1.28960 | 1837.50000 | 236.21000 | 1.93480 | 2.02290 | 1.21970 | 1.41470 | 3.8430 | 3.2730 | 3.2430 |
| | GRADIENT | -.00066 | .00200 | .00026 | -.00332 | -.00739 | .00407 | .00554 | -.00072 | -.00092 | .09057 |

(AETR59X (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-89M 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.8800 IN. XG
 LREF = 474.8000 IN. YMRP = .0000 IN. YG
 BREF = 938.6800 IN. ZMRP = 379.0000 IN. ZG
 SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVOM = .000
 AIRLON = .000 BOFLAP = -7.170

RUN NO. 51/ C 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | R | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|------------|---------|---------|--------|---------|--------|--------|--------|
| .900 | .076 | 5.37890 | 2127.50000 | 1259.00000 | 1.07030 | 1.20850 | 93290 | 1.00340 | .86990 | .85250 | .87410 |
| .901 | 2.171 | 5.39730 | 2125.79999 | 1256.60001 | 1.07500 | 1.21250 | 95020 | 1.01970 | .86890 | .85210 | .87890 |
| .899 | 4.282 | 5.40810 | 2126.79999 | 1258.80000 | 1.07510 | 1.21200 | 95980 | 1.02770 | .86550 | .85570 | .87970 |
| .900 | 6.405 | 5.40510 | 2127.50000 | 1257.30000 | 1.07900 | 1.21210 | 96990 | 1.04090 | .86380 | .85380 | .88030 |
| .899 | 8.525 | 5.41360 | 2127.50000 | 1258.70000 | 1.07180 | 1.20790 | 97710 | 1.05220 | .86270 | .85220 | .88270 |
| .899 | 10.664 | 5.42090 | 2127.50000 | 1258.70000 | 1.06560 | 1.19980 | 97810 | 1.05340 | .86380 | .85380 | .87550 |
| .897 | 12.794 | 5.42350 | 2127.50000 | 1257.60001 | 1.05370 | 1.18380 | 97350 | 1.05300 | .85930 | .85110 | .86310 |
| .898 | 14.939 | 5.42310 | 2127.50000 | 1256.60001 | 1.02110 | 1.15840 | 97140 | 1.05800 | .85350 | .85370 | .86390 |
| .900 | 17.079 | 5.43680 | 2126.10001 | 1256.60001 | 1.02110 | 1.15840 | 96270 | 1.05520 | .83960 | .85730 | .86450 |
| .896 | 19.233 | 5.45040 | 2127.50000 | 1263.80000 | 99780 | 1.13930 | 94630 | 1.04540 | .81510 | .84870 | .83470 |
| .896 | 21.398 | 5.45550 | 2126.79999 | 1263.10001 | 97120 | 1.11470 | 94080 | 1.04270 | .79410 | .81090 | .83470 |
| .898 | 23.446 | 5.45730 | 2127.50000 | 1260.89999 | 95050 | 1.09200 | 92000 | 1.03010 | .78530 | .81890 | .78890 |
| .895 | 25.472 | 5.45320 | 2127.50000 | 1263.80000 | 91980 | 1.06060 | 89970 | 1.01730 | .77800 | .73000 | .73760 |
| .897 | 26.414 | 5.45210 | 2127.50000 | 1262.39999 | 89250 | 1.04880 | 88770 | 1.01180 | .72880 | .72880 | .71780 |
| GRADIENT | | .00703 | -.16523 | .19122 | .00114 | .00083 | .00523 | .00530 | .00057 | .00057 | .00133 |

RUN NO. 5394 0 5.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | R | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|-------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| 1.750 | -.075 | 4.79320 | 1633.80000 | 306.66000 | 1.83870 | 2.23680 | 1.12140 | 1.44880 | .53470 | .49080 | .49080 |
| 1.750 | 1.917 | 4.78850 | 1630.30000 | 306.00000 | 1.84310 | 2.23290 | 1.13310 | 1.46190 | .51590 | .49160 | .49160 |
| 1.750 | 3.986 | 4.78680 | 1630.30000 | 306.00000 | 1.82910 | 2.22830 | 1.14640 | 1.45550 | .50450 | .49750 | .49750 |
| 1.750 | 6.046 | 4.78350 | 1632.80000 | 306.40000 | 1.81170 | 2.21020 | 1.14840 | 1.46450 | .49170 | .50730 | .50730 |
| 1.750 | 8.111 | 4.79550 | 1633.80000 | 306.66000 | 1.80410 | 2.19850 | 1.14580 | 1.47630 | .49910 | .52580 | .52580 |
| 1.750 | 10.172 | 4.78750 | 1626.60001 | 307.19000 | 1.79090 | 2.17590 | 1.13590 | 1.48020 | .56250 | .50350 | .50350 |
| 1.750 | 12.211 | 4.79080 | 1637.30000 | 307.33000 | 1.76520 | 2.15020 | 1.13280 | 1.48450 | .46340 | .49550 | .49550 |
| 1.750 | 14.336 | 4.79670 | 1637.30000 | 307.33000 | 1.70410 | 2.10590 | 1.08560 | 1.47790 | .49540 | .49540 | .45730 |
| 1.750 | 16.436 | 4.80280 | 1637.30000 | 307.33000 | 1.67240 | 2.06650 | 1.07980 | 1.47090 | .47480 | .44600 | .44600 |
| 1.750 | 18.525 | 4.80940 | 1639.00000 | 307.45000 | 1.63480 | 2.04490 | 1.06490 | 1.46500 | .42980 | .42590 | .42590 |
| 1.750 | 20.545 | 4.81390 | 1640.89999 | 307.99000 | 1.63480 | 2.04490 | 1.06490 | 1.46500 | .41860 | .41860 | .42260 |
| 1.750 | 22.630 | 4.82020 | 1642.30000 | 308.25000 | 1.57100 | 1.99130 | 1.02030 | 1.47630 | .38920 | .38920 | .40770 |
| 1.750 | 24.689 | 4.81670 | 1642.30000 | 309.25000 | 1.53730 | 1.96990 | .99830 | 1.47610 | .44380 | .39280 | .39280 |
| 1.750 | 25.715 | -.00000 | -.65548 | -.16151 | -.00239 | -.00259 | .00610 | .00162 | -.00742 | -.00742 | .00165 |

(AE7R59) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA:

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 344/ 0 RV/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 1.996 | -.045 | 4.27133 | 1838.20000 | 236.30000 | 2.03580 | 2.53110 | 1.4780 | 1.54060 | 4.6840 | 4.3840 | 4.2940 |
| 1.996 | 1.960 | 4.26700 | 1835.80000 | 235.12000 | 2.04000 | 2.54120 | 1.16020 | 1.54850 | 4.6200 | 4.5220 | 4.1850 |
| 1.996 | 4.016 | 4.25280 | 1837.50000 | 235.21000 | 2.02960 | 2.52030 | 1.16500 | 1.54940 | 4.6000 | 4.2100 | 4.1580 |
| 1.996 | 6.083 | 4.25910 | 1837.50000 | 235.21000 | 2.02530 | 2.49890 | 1.17160 | 1.55610 | 4.5900 | 4.0880 | 4.2230 |
| 1.996 | 6.143 | 4.25630 | 1836.80000 | 235.12000 | 2.01310 | 2.47850 | 1.17070 | 1.56940 | 4.6050 | 4.0570 | 4.2150 |
| 1.996 | 10.189 | 4.25710 | 1837.50000 | 235.21000 | 1.99450 | 2.46210 | 1.16600 | 1.57330 | 4.5100 | 3.9630 | 4.1200 |
| 1.996 | 12.240 | 4.25480 | 1837.50000 | 235.21000 | 1.97210 | 2.43370 | 1.15650 | 1.56810 | 4.3150 | 3.9210 | 3.9330 |
| 1.996 | 14.321 | 4.25200 | 1837.50000 | 235.21000 | 1.94340 | 2.41750 | 1.14860 | 1.57410 | 4.3050 | 3.8020 | 4.0570 |
| 1.996 | 16.456 | 4.24720 | 1836.80000 | 235.12000 | 1.91840 | 2.37810 | 1.15030 | 1.57240 | 4.2320 | 3.7440 | 3.8270 |
| 1.996 | 18.540 | 4.23960 | 1836.80000 | 235.12000 | 1.89340 | 2.35580 | 1.12370 | 1.56950 | 4.1160 | 3.6360 | 3.9160 |
| 1.996 | 20.553 | 4.23010 | 1837.50000 | 235.21000 | 1.86270 | 2.32250 | 1.10930 | 1.56810 | 4.0500 | 3.4120 | 3.5920 |
| 1.996 | 22.636 | 4.22400 | 1836.80000 | 235.12000 | 1.81330 | 2.28420 | 1.09750 | 1.57920 | 3.9840 | 3.4950 | 3.5230 |
| 1.996 | 24.563 | 4.22370 | 1836.80000 | 235.12000 | 1.75230 | 2.24550 | 1.06240 | 1.57520 | 3.7810 | 3.2190 | 3.3030 |
| 1.996 | 25.724 | 4.22230 | 1840.50000 | 235.57000 | 1.73230 | 2.21540 | 1.03980 | 1.57840 | 3.7180 | 3.1190 | 3.2390 |
| GRADIENT | | -.00457 | -.11024 | -.02189 | -.00154 | -.00269 | .00423 | .00216 | -.00206 | -.00433 | -.00334 |

RUN NO. 336/ 0 RV/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | PS1/P | PS2/P | PS3/P | PS4/P | PS5/P | PS6/P | PS7/P |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 2.249 | -.069 | 4.26120 | 2030.60000 | 175.84000 | 2.31860 | 2.92960 | 1.23830 | 1.67720 | 4.3020 | 4.0090 | 3.8070 |
| 2.249 | 1.952 | 4.25800 | 2027.00000 | 175.53000 | 2.31350 | 2.90750 | 1.24850 | 1.67910 | 4.2280 | 3.7940 | 3.7230 |
| 2.249 | 4.008 | 4.25610 | 2027.00000 | 175.59000 | 2.29060 | 2.90230 | 1.25540 | 1.69270 | 4.2410 | 3.6750 | 3.7460 |
| 2.249 | 6.059 | 4.25710 | 2033.39999 | 175.08000 | 2.28220 | 2.86930 | 1.26010 | 1.70820 | 4.2430 | 3.6290 | 3.6790 |
| 2.249 | 6.118 | 4.25930 | 2035.50000 | 176.27000 | 2.26980 | 2.83100 | 1.25360 | 1.71040 | 4.0130 | 3.3590 | 3.5510 |
| 2.249 | 12.208 | 4.25970 | 2035.50000 | 176.33000 | 2.24300 | 2.77700 | 1.24410 | 1.72790 | 3.6700 | 3.0360 | 3.3180 |
| 2.249 | 14.263 | 4.26200 | 2036.20000 | 176.33000 | 2.21750 | 2.74780 | 1.23910 | 1.72960 | 3.5690 | 2.9550 | 3.1660 |
| 2.249 | 16.395 | 4.26480 | 2035.89999 | 176.39000 | 2.19130 | 2.72160 | 1.23180 | 1.72700 | 3.5420 | 2.9180 | 3.1390 |
| 2.249 | 18.462 | 4.26740 | 2035.89999 | 176.39000 | 2.16330 | 2.68350 | 1.20570 | 1.73310 | 3.5020 | 2.8780 | 3.0180 |
| 2.249 | 22.553 | 4.27320 | 2035.89999 | 176.39000 | 2.04400 | 2.60120 | 1.15650 | 1.72310 | 3.3950 | 2.7710 | 2.7910 |
| 2.249 | 24.606 | 4.28370 | 2036.89999 | 176.39000 | 2.00980 | 2.53430 | 1.08660 | 1.70680 | 3.3660 | 2.6420 | 2.6010 |
| 2.249 | 27.953 | 4.28330 | 2036.89999 | 176.39000 | 1.99780 | 2.52410 | 1.07480 | 1.70790 | 3.3510 | 2.6250 | 2.6150 |
| GRADIENT | | -.00125 | -.17023 | -.06106 | -.00698 | -.00669 | .00419 | .00381 | -.00149 | -.00819 | -.00149 |

TABULATED DATA - OA161 (ARC 11-97-87-09%)

(BETR01) (02 AUG 75)

ARC 11-97-87-09% OA161 ORBITER - WING + RAKES

PARAMETRIC DATA

REFERENCE DATA

BETA = .000 BDFLAP = -7.170

SPEC = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 2/ 0 RW/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | GRADIENT |
|------|--------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .595 | .069 | .16200 | 2580.10001 | 1.00050 | 1.00040 | .99970 | 1.00050 | 1.00030 | 1.00010 | .74270 | 0.0PSF1 |
| .595 | 4.022 | .20740 | 2580.10001 | 1.00020 | 1.00030 | 1.00010 | 1.00020 | 1.00050 | 1.00010 | .74640 | 504.51000 |
| .595 | 8.054 | .21740 | 2580.10001 | 1.00030 | 1.00030 | 1.00030 | 1.00020 | 1.00030 | 1.00030 | .74520 | 503.35000 |
| .595 | 12.146 | .20830 | 2580.10001 | 1.00030 | 1.00030 | 1.00030 | 1.00020 | 1.00020 | 1.00010 | .73840 | 503.35000 |
| .596 | 16.684 | .23170 | 2580.79999 | .99970 | .99990 | .99960 | .99950 | 1.00000 | .99970 | .73040 | 505.11000 |
| .597 | 20.839 | .23150 | 2580.79999 | .99770 | .99770 | .99780 | .99780 | .99840 | .99990 | .72380 | 503.94000 |
| | 24.766 | .24450 | 2580.79999 | .99150 | .99230 | .99890 | .99210 | .99590 | .99590 | .71490 | 506.69000 |
| | | .01149 | -.00002 | -.00008 | -.00003 | .00010 | -.00008 | .00005 | .00000 | .00094 | -.29346 |

RUN NO. 3/ 0 RW/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | GRADIENT |
|------|--------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .697 | .057 | .16540 | 2334.00000 | 1.00000 | .99990 | 1.00000 | 1.00010 | 1.00010 | .99990 | .66490 | 0.0PSF1 |
| .699 | 4.019 | .20470 | 2334.00000 | .99990 | 1.00000 | 1.00020 | 1.00030 | 1.00030 | 1.00000 | .66920 | 574.04000 |
| .699 | 8.073 | .21260 | 2334.70001 | 1.00020 | 1.00030 | 1.00030 | .99999 | 1.00030 | 1.00020 | .66860 | 575.14000 |
| .698 | 12.376 | .20960 | 2334.70001 | 1.00000 | 1.00020 | 1.00040 | 1.00030 | 1.00040 | 1.00020 | .66110 | 574.60000 |
| .698 | 16.532 | .23740 | 2334.70001 | 1.00030 | 1.00020 | .99980 | 1.00010 | 1.00050 | .99980 | .65160 | 575.74000 |
| .697 | 20.705 | .22920 | 2335.39999 | .99790 | .99820 | .99740 | .99800 | .99960 | .99820 | .64170 | 574.09000 |
| .697 | 24.854 | .25750 | 2335.39999 | .99390 | .98840 | .98670 | .99160 | .99410 | .99440 | .63580 | 574.09000 |
| | | .00982 | .00000 | -.00003 | .00003 | .00005 | .00005 | .00005 | .00003 | .06109 | .46642 |

RUN NO. 4/ 0 RW/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | GRADIENT |
|------|--------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .799 | .041 | .16450 | 2280.26999 | 1.00020 | 1.00030 | 1.00000 | 1.00040 | 1.00000 | .99980 | .58530 | 0.0PSF1 |
| .799 | 4.013 | .20160 | 2197.58000 | 1.00020 | 1.00026 | .99990 | 1.00020 | 1.00000 | .99980 | .58690 | 645.82000 |
| .799 | 8.083 | .21090 | 2198.89999 | .99990 | 1.00020 | 1.00050 | 1.00010 | 1.00000 | .99980 | .58840 | 645.17500 |
| .797 | 12.400 | .21020 | 2198.20001 | 1.00050 | 1.00030 | 1.00020 | .99999 | 1.00020 | 1.00020 | .59220 | 643.27000 |
| .797 | 16.584 | .23740 | 2198.89999 | .99870 | .99580 | .99960 | .99940 | .99960 | .99960 | .57140 | 643.80000 |
| .795 | 20.778 | .24530 | 2198.89999 | .99770 | .99810 | .99720 | .99800 | .99890 | .99950 | .56200 | 641.37500 |
| .795 | 24.949 | .25810 | 2198.20001 | .98330 | .98730 | .98550 | .99010 | .99350 | .99410 | .54900 | 642.36000 |
| | | .01924 | -.70494 | -.00003 | -.00003 | -.00003 | -.00005 | -.00005 | -.00000 | .06141 | -.16364 |

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REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8800 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 BDFLAP = -7.170

RUN NO. 5/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|----------|--------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .902 | .028 | .15640 | 2108.39999 | 1.00000 | 1.00020 | .99970 | .99990 | 1.00010 | .99980 | .49850 | 788.43000 |
| .903 | 4.018 | .20410 | 2108.39999 | .99980 | .99970 | 1.00010 | .99970 | .99980 | .99970 | .50690 | 708.64000 |
| .901 | 9.097 | .21540 | 2109.10001 | 1.00020 | 1.00000 | .99960 | 1.00000 | .99970 | .99970 | .50320 | 707.67000 |
| .900 | 12.443 | .20840 | 2109.10001 | 1.00010 | 1.00020 | 1.00050 | 1.00080 | 1.00030 | .99970 | .49340 | 707.25000 |
| .899 | 16.649 | .23740 | 2109.79999 | .99970 | .99960 | .99950 | .99950 | .99970 | 1.00000 | .48540 | 707.32000 |
| .898 | 20.885 | .24210 | 2109.79999 | .99720 | .99770 | .99720 | .99740 | .99810 | .99870 | .47870 | 705.59000 |
| .897 | 25.105 | .24030 | 2109.79999 | .98920 | .99240 | .98570 | .93040 | .98350 | .99420 | .46370 | 705.15000 |
| GRADIENT | | .01196 | -.00002 | -.00005 | -.00013 | .00010 | -.00005 | -.00005 | -.00003 | .00211 | -.10277 |

RUN NO. 6/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|----------|--------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .981 | .031 | .16850 | 2077.29999 | 1.00030 | 1.00020 | 1.00020 | 1.00040 | .99970 | 1.00000 | .40320 | 755.99000 |
| .982 | 4.031 | .20600 | 2078.00000 | .99970 | .99970 | .99990 | .99970 | .99950 | .99990 | .41980 | 756.61000 |
| .980 | 8.137 | .21850 | 2078.00000 | .99970 | 1.00050 | 1.00020 | .99970 | 1.00000 | 1.00010 | .41310 | 756.33000 |
| .983 | 12.528 | .20800 | 2078.00000 | 1.00010 | 1.00020 | 1.00030 | .99990 | 1.00040 | 1.00020 | .40290 | 755.33000 |
| .978 | 16.760 | .22220 | 2076.50000 | .99920 | .99980 | .99950 | .99920 | .99970 | .99970 | .40780 | 755.67000 |
| .976 | 21.008 | .22570 | 2079.00000 | .99720 | .99800 | .93740 | .99750 | .99860 | .99820 | .40800 | 752.72000 |
| .974 | 25.240 | .22000 | 2077.29999 | .98950 | .99270 | .98610 | .98060 | .98390 | .98430 | .41130 | 751.14000 |
| GRADIENT | | .00937 | .17497 | -.00015 | -.00002 | -.00007 | -.00017 | -.00005 | -.00002 | .00415 | -.20497 |

RUN NO. 7/ 0 RN/L = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|----------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.104 | .023 | .15160 | 2034.80000 | .99830 | .99820 | .98930 | .99870 | .99810 | .99770 | .32060 | 809.30000 |
| 1.100 | 4.040 | .19550 | 2030.60001 | .99940 | .99940 | .99930 | .99960 | .99950 | .99910 | .35890 | 805.49000 |
| 1.100 | 8.161 | .22060 | 2035.20000 | .99930 | .99930 | .99960 | .99900 | .99890 | .99890 | .33720 | 807.65000 |
| 1.097 | 12.546 | .21530 | 2032.70000 | .99950 | .99940 | .99930 | .99960 | .99960 | .99930 | .32310 | 805.06000 |
| 1.097 | 16.786 | .23090 | 2034.80000 | .99660 | .99900 | .99900 | .99880 | .99910 | .99900 | .31900 | 805.73000 |
| 1.093 | 21.030 | .23100 | 2035.50000 | .99650 | .99710 | .99590 | .99630 | .99760 | .99750 | .31420 | 804.19000 |
| 1.089 | 25.255 | .22500 | 2032.00000 | .98900 | .99210 | .98630 | .99080 | .99460 | .99420 | .29830 | 806.41000 |
| GRADIENT | | .01118 | -.104553 | .00027 | .00030 | .00025 | .00022 | .00035 | .00035 | .00164 | -.94844 |

TABULATED DATA - 04164 (ARC 11-97-87-09*)

ARC 11-97-87-09* OAM64 ORBITER - WING + RAKES.

(BETROL) (02 AUG 75)

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1075.6800 IN. XQ
 LPEF = 474.8000 IN. YMRP = .0000 IN. YQ
 BREF = 935.6900 IN. ZMRP = 375.0080 IN. ZQ
 SCALE = .0370

PARAMETRIC DATA

BETA = .000 BDFLAP = -7.170

RUN NO. 8 / 0 RIN/L = 4.26 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|-------|----------|--------|------------|--------|--------|--------|---------|--------|--------|---------|-----------|
| 1.196 | .009 | .16026 | 2007.89999 | .99360 | .99340 | .99270 | .98300 | .98320 | .98350 | .27680 | 833.40000 |
| 1.200 | 4.058 | .19360 | 2005.50000 | .99380 | .99360 | .99300 | .99290 | .99350 | .99380 | .28280 | 834.03000 |
| 1.199 | 8.158 | .20480 | 2007.20000 | .99398 | .99380 | .99320 | .99300 | .99350 | .99380 | .27970 | 834.21000 |
| 1.195 | 12.545 | .20100 | 2008.60000 | .99420 | .99380 | .99320 | .99300 | .99350 | .99380 | .26530 | 833.38000 |
| 1.195 | 16.783 | .22220 | 2007.89999 | .99380 | .99350 | .99280 | .99270 | .99240 | .99300 | .25780 | 833.00000 |
| 1.191 | 21.027 | .22420 | 2007.89999 | .99110 | .98980 | .98980 | .99020 | .99020 | .99050 | .25130 | 832.00000 |
| 1.190 | 25.265 | .22070 | 2008.60000 | .98240 | .98590 | .98220 | .98530 | .98680 | .98630 | .23640 | 831.76000 |
| | GRADIENT | .00829 | -.34746 | .00005 | .00005 | .00067 | -.06002 | .00010 | .00010 | -.00134 | .15637 |

RUN NO. 9 / 0 RIN/L = 4.27 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|-------|----------|--------|------------|---------|---------|--------|--------|---------|---------|--------|-----------|
| 1.298 | -.004 | .16350 | 2014.30000 | .99370 | .98220 | .98050 | .97890 | .97960 | .98210 | .22690 | 859.76000 |
| 1.298 | 4.024 | .20220 | 2014.30000 | .99340 | .98200 | .98070 | .98000 | .97810 | .98030 | .23470 | 859.76000 |
| 1.297 | 8.151 | .18520 | 2015.00000 | .99350 | .98190 | .98110 | .98057 | .97960 | .98100 | .23110 | 859.76000 |
| 1.294 | 12.538 | .20390 | 2014.30000 | .98320 | .98180 | .98090 | .98007 | .97920 | .98090 | .21900 | 859.17000 |
| 1.294 | 16.776 | .22650 | 2015.00000 | .98190 | .98120 | .98150 | .97730 | .97750 | .97860 | .20880 | 859.40000 |
| 1.293 | 21.026 | .21860 | 2015.00000 | .97820 | .97740 | .97820 | .97590 | .97620 | .97820 | .20070 | 859.18000 |
| 1.299 | 25.269 | .22700 | 2015.70000 | .97090 | .97190 | .97120 | .97110 | .97050 | .97300 | .19840 | 859.06000 |
| | GRADIENT | .00961 | .00001 | -.00007 | -.00005 | .00005 | .00027 | -.00042 | -.00042 | .00144 | .00000 |

RUN NO. 10 / 0 RIN/L = 4.22 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.404 | -.022 | .14420 | 2039.10000 | .96220 | .95740 | .95740 | .94750 | .95230 | .95830 | .18910 | 879.17000 |
| 1.402 | 4.011 | .20200 | 2039.10000 | .96450 | .95000 | .96450 | .95340 | .95400 | .95910 | .19420 | 879.15000 |
| 1.401 | 8.144 | .21430 | 2039.80000 | .96500 | .96180 | .95970 | .95950 | .95430 | .95900 | .19080 | 879.45000 |
| 1.400 | 12.525 | .21020 | 2039.80000 | .96450 | .96010 | .95800 | .95280 | .95470 | .95060 | .17990 | 879.42000 |
| 1.397 | 16.769 | .22420 | 2039.80000 | .96180 | .95790 | .95790 | .95890 | .95470 | .95890 | .16550 | 879.37000 |
| 1.396 | 21.013 | .23100 | 2039.80000 | .95500 | .95400 | .95110 | .94730 | .95250 | .95630 | .16330 | 879.35000 |
| 1.394 | 25.265 | .20480 | 2039.80000 | .95020 | .94870 | .94730 | .94480 | .94480 | .94940 | .16160 | 879.29000 |
| | GRADIENT | -.01433 | .00000 | .00060 | .00064 | .00077 | .00146 | .00042 | .00020 | .00126 | -.00495 |

(BETR02) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09A)
ARC 11-97-87-094 0A161 ORBITER - KING

REFERENCE DATA

SPEF = 2690.0000 SC.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = .000 BDFLAP = -7.170

RUN NO. 282/ 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .596 | .066 | .1920 | 2520.00000 | .74290 | .74240 | .74300 | .74260 | .74290 | .74340 | .74290 | 498.92000 |
| .595 | 4.082 | .2520 | 2519.29999 | .74690 | .74720 | .74600 | .74670 | .74690 | .74790 | .74590 | 492.91000 |
| .595 | 8.126 | .2430 | 2520.70001 | .74650 | .74680 | .74670 | .74650 | .74640 | .74650 | .74640 | 492.93000 |
| .596 | 12.205 | .2390 | 2520.00000 | .74150 | .74010 | .74080 | .74090 | .73970 | .74060 | .74380 | 492.92000 |
| .596 | 16.337 | .2650 | 2520.00000 | .73340 | .73260 | .73460 | .73330 | .73340 | .73300 | .73390 | 492.92000 |
| .596 | 20.495 | .2690 | 2520.00000 | .72530 | .72510 | .72520 | .72540 | .72440 | .72540 | .72490 | 492.92000 |
| .597 | 24.613 | .2650 | 2520.00000 | .71720 | .71730 | .71710 | .71650 | .71680 | .71580 | .71760 | 493.50000 |
| | GRADIENT | .01295 | -1.1729 | .00100 | .00120 | .00075 | .00105 | .00095 | .00112 | .00100 | - .00249 |

RUN NO. 283/ 0 RN/L = 4.31 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .599 | .029 | .16540 | 2055.29999 | .41000 | .41080 | .40920 | .41071 | .41090 | .40870 | .40650 | 749.78000 |
| .590 | 4.088 | .2330 | 2055.20001 | .42620 | .42470 | .42490 | .42361 | .42140 | .42370 | .42320 | 750.43000 |
| .593 | 8.196 | .2450 | 2064.90000 | .42160 | .42140 | .42080 | .41950 | .41990 | .42090 | .42050 | 749.60000 |
| .593 | 12.370 | .2480 | 2055.20001 | .41370 | .41460 | .41600 | .41450 | .41490 | .41690 | .41560 | 750.06000 |
| .590 | 16.624 | .2670 | 2055.89999 | .41390 | .41360 | .41370 | .41450 | .41440 | .41560 | .41400 | 750.69000 |
| .592 | 20.864 | .2690 | 2055.89999 | .41340 | .41390 | .41310 | .41400 | .41270 | .41330 | .41210 | 752.00000 |
| .597 | 25.082 | .2700 | 2053.70000 | .41120 | .41120 | .41290 | .41240 | .41310 | .41400 | .41320 | 748.40000 |
| | GRADIENT | .01121 | -1.1727 | .00399 | .00342 | .00387 | .00318 | .00259 | .00370 | .00362 | .16076 |

RUN NO. 284/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.035 | .023 | .16900 | 2012.89999 | .33320 | .33170 | .33230 | .33270 | .33270 | .33330 | .33290 | 796.07000 |
| .037 | 4.094 | .2490 | 2012.89999 | .33360 | .34040 | .34030 | .34071 | .34010 | .33970 | .34050 | 796.91000 |
| .038 | 8.220 | .2430 | 2015.00000 | .33930 | .33870 | .33940 | .33880 | .33930 | .33950 | .33900 | 798.42000 |
| .037 | 12.333 | .2450 | 2012.89999 | .32700 | .32710 | .32700 | .32730 | .32680 | .32650 | .32650 | 797.19000 |
| .036 | 16.630 | .2580 | 2012.89999 | .32390 | .32380 | .32330 | .32250 | .32290 | .32250 | .32250 | 797.47000 |
| .035 | 20.875 | .2710 | 2013.60001 | .31680 | .31670 | .31650 | .31620 | .31660 | .31640 | .31670 | 797.60000 |
| .037 | 25.039 | .2760 | 2012.89999 | .30470 | .30450 | .30480 | .30390 | .30450 | .30460 | .30410 | 796.30000 |
| .030 | GRADIENT | .01265 | .00000 | .00157 | .00214 | .00197 | .00197 | .00182 | .00157 | .00187 | .20635 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER - WING

(BE7R02) (02 AUG 76)

PARAMETRIC DATA

SPEC = 2693.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = .000 BOFLAP = -7.170

RUN# NO. 285/ 0 RV/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.198 | .010 | .19810 | 2017.10001 | .27720 | .27820 | .27760 | .27740 | .27820 | .27770 | .27760 | 837.69000 |
| 1.197 | 2.054 | .22700 | 2017.10001 | .28300 | .28300 | .28260 | .28250 | .28280 | .28360 | .28360 | 837.69000 |
| 1.198 | 4.089 | .23410 | 2017.10001 | .28500 | .28640 | .28610 | .28590 | .28660 | .28620 | .28570 | 837.69000 |
| 1.198 | 6.143 | .24460 | 2016.39999 | .28350 | .28410 | .28370 | .28420 | .28310 | .28420 | .28350 | 837.71000 |
| 1.198 | 8.223 | .24900 | 2017.10001 | .28230 | .28150 | .28240 | .28240 | .28210 | .28200 | .28190 | 837.69000 |
| 1.197 | 10.311 | .24530 | 2015.50000 | .27550 | .27490 | .27510 | .27500 | .27550 | .27520 | .27460 | 837.64000 |
| 1.196 | 12.401 | .25060 | 2017.90000 | .26910 | .26970 | .27010 | .27040 | .26920 | .26990 | .26960 | 837.67000 |
| 1.197 | 14.515 | .26230 | 2017.10001 | .26700 | .26680 | .26740 | .26590 | .26550 | .26620 | .26680 | 837.69000 |
| 1.197 | 16.639 | .26720 | 2017.80000 | .26190 | .26240 | .26360 | .26390 | .26560 | .26380 | .26420 | 837.67000 |
| 1.196 | 18.751 | .27130 | 2017.10001 | .25840 | .25990 | .25940 | .25939 | .25970 | .25780 | .25810 | 837.69000 |
| 1.196 | 20.897 | .26940 | 2017.60000 | .25590 | .25540 | .25610 | .25630 | .25610 | .25640 | .25600 | 837.67000 |
| 1.196 | 22.999 | .26430 | 2017.80000 | .24960 | .25050 | .25000 | .24900 | .24970 | .25010 | .25030 | 837.69000 |
| 1.196 | 25.116 | .26270 | 2017.10001 | .24570 | .24640 | .24550 | .24550 | .24500 | .24460 | .24550 | 837.69000 |
| 1.197 | 26.169 | .25800 | 2017.10001 | .24230 | .24210 | .24130 | .24220 | .24110 | .24010 | .24150 | 837.69000 |
| | GRADIENT | .09883 | .00000 | .00191 | .00201 | .00208 | .00203 | .00181 | .00208 | .00198 | - .00007 |

REFERENCE DATA

SREF = 2692.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.0000 ELEVON = .000
 ATLRON = .0000 SDFLAP = -7.170

RUN NO. 17/ 0 RNL = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PFS/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.99 | .099 | -4.97040 | 2010.80000 | .99300 | .99290 | .99200 | .99460 | .99100 | .93110 | .99900 | 835.49000 |
| 1.20 | 2.181 | -4.97620 | 2009.60001 | .99400 | .99370 | .99270 | .98640 | .98220 | .98240 | .99080 | 835.15000 |
| 1.21 | 4.275 | -4.95620 | 2010.10001 | .99430 | .99430 | .99310 | .99230 | .98260 | .99230 | .99110 | 835.90000 |
| 1.99 | 6.406 | -4.94970 | 2008.60001 | .99480 | .99460 | .99400 | .99300 | .98310 | .99320 | .99230 | 834.56000 |
| 1.19 | 8.546 | -4.94490 | 2010.10001 | .99450 | .99450 | .99330 | .99280 | .98200 | .99180 | .99170 | 834.53000 |
| 1.194 | 10.701 | -4.94170 | 2009.60001 | .99500 | .99490 | .99410 | .99290 | .98110 | .99040 | .99180 | 833.18000 |
| 1.195 | 12.857 | -4.94230 | 2009.39999 | .99430 | .99450 | .99350 | .99050 | .98750 | .98940 | .98900 | 833.18000 |
| 1.194 | 15.033 | -4.95320 | 2009.39999 | .99370 | .99350 | .99300 | .99030 | .98710 | .98660 | .98900 | 833.95000 |
| 1.196 | 17.194 | -4.98870 | 2008.60001 | .99300 | .99320 | .99200 | .98900 | .98630 | .98630 | .98740 | 832.28000 |
| 1.193 | 19.364 | -4.98870 | 2008.60001 | .99190 | .99170 | .99040 | .98620 | .98340 | .98440 | .98550 | 832.28000 |
| 1.192 | 21.517 | -4.97210 | 2008.60001 | .98960 | .99110 | .98820 | .98230 | .98090 | .98240 | .98480 | 832.28000 |
| 1.192 | 23.659 | -4.94480 | 2010.10001 | .98590 | .98780 | .98340 | .97750 | .97620 | .97770 | .98080 | 832.93000 |
| 1.192 | 25.774 | -4.94101 | -1.16657 | .00031 | .00029 | .00026 | .00011 | .00038 | .00026 | .00050 | .09949 |

RUN NO. 305/ 0 RNL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|----------|------------|--------|---------|--------|--------|--------|--------|---------|-----------|
| 1.555 | .025 | -5.61928 | 1581.50000 | .99330 | .99320 | .99270 | .99220 | .98610 | .89320 | .91730 | 672.66000 |
| 1.555 | 2.023 | -5.61890 | 1592.89999 | .99310 | .99300 | .99280 | .99250 | .98630 | .89310 | .91780 | 673.46000 |
| 1.555 | 4.108 | -5.61630 | 1580.70000 | .99390 | .99350 | .99500 | .98190 | .89790 | .89540 | .91700 | 672.56000 |
| 1.556 | 6.184 | -5.61670 | 1580.70000 | .99430 | .99350 | .99560 | .98060 | .89710 | .89530 | .91720 | 672.56000 |
| 1.556 | 8.265 | -5.61710 | 1591.50000 | .99420 | .99370 | .99590 | .98330 | .89630 | .89460 | .91580 | 672.66000 |
| 1.555 | 10.334 | -5.61790 | 1578.60001 | .99400 | .99310 | .99660 | .98740 | .89830 | .89700 | .91450 | 671.66000 |
| 1.555 | 12.388 | -5.61930 | 1579.30000 | .99420 | .99390 | .99900 | .98660 | .89150 | .89740 | .91110 | 671.66000 |
| 1.555 | 14.485 | -5.61980 | 1579.30000 | .99420 | .99410 | .99940 | .98840 | .89640 | .89610 | .91770 | 671.96000 |
| 1.555 | 16.624 | -5.61910 | 1579.30000 | .99450 | .99320 | .99900 | .98940 | .89500 | .89350 | .91640 | 671.96000 |
| 1.555 | 18.733 | -5.62130 | 1580.00000 | .99330 | .99360 | .99890 | .98210 | .89690 | .89000 | .91690 | 672.26000 |
| 1.555 | 20.770 | -5.61820 | 1579.30000 | .99320 | .99360 | .99650 | .98450 | .89650 | .89330 | .91650 | 671.96000 |
| 1.555 | 22.930 | -5.61490 | 1579.30000 | .99310 | .99370 | .99230 | .89940 | .89110 | .89970 | .91240 | 671.96000 |
| 1.555 | 25.951 | -5.61620 | 1579.30000 | .99340 | .99540 | .91930 | .89490 | .89500 | .89420 | .91240 | 671.96000 |
| 1.556 | GRADIENT | .00071 | -2.29526 | .00015 | -.00016 | .00105 | .00066 | .00044 | .00054 | -.00008 | -.07631 |

TABULATED DATA - 0A161 (ARC 11-97-67-09M)
 ARC 11-97-67-09M 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0800 IN. ZO
 SCALE = .0300

BETA =
 AILRON =
 ELEVON =
 BDFLAP =

PARAMETRIC DATA

RUN NO. 306/ 0 RM/L = 3.0M GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PF%) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.750 | -0.099 | -5.44620 | 1650.10001 | .88080 | .87160 | .85830 | .77930 | .79390 | .81040 | .09870 | 664.39000 |
| 1.750 | 1.902 | -5.44890 | 1651.57000 | .88280 | .87120 | .84830 | .78330 | .79790 | .81220 | .10000 | 654.96000 |
| 1.750 | 3.975 | -5.44940 | 1650.10001 | .88480 | .87320 | .85150 | .78650 | .80100 | .81530 | .09970 | 664.39000 |
| 1.750 | 6.044 | -5.44930 | 1649.39999 | .88430 | .87500 | .85490 | .79050 | .80350 | .81740 | .09970 | 654.11000 |
| 1.750 | 8.116 | -5.44750 | 1650.80000 | .88630 | .87980 | .86190 | .78360 | .80390 | .81830 | .09810 | 654.68000 |
| 1.750 | 10.183 | -5.44560 | 1650.10001 | .88730 | .88170 | .86510 | .78790 | .80710 | .81930 | .09810 | 664.39000 |
| 1.750 | 12.228 | -5.44500 | 1650.80000 | .89700 | .88160 | .86660 | .79610 | .80870 | .82000 | .09700 | 654.68000 |
| 1.750 | 14.316 | -5.44490 | 1650.10001 | .89720 | .88150 | .86850 | .79230 | .80600 | .81860 | .09320 | 664.39000 |
| 1.750 | 16.464 | -5.44430 | 1649.39999 | .89560 | .88020 | .85890 | .78540 | .80430 | .81620 | .09350 | 664.11000 |
| 1.750 | 18.553 | -5.44380 | 1650.10001 | .89370 | .87760 | .86630 | .79630 | .79630 | .80930 | .09439 | 654.39000 |
| 1.750 | 20.586 | -5.44340 | 1650.10001 | .89310 | .87760 | .86630 | .79630 | .79630 | .80930 | .09360 | 664.39000 |
| 1.750 | 24.735 | -5.43590 | 1650.10001 | .87590 | .86910 | .85440 | .75970 | .77580 | .78900 | .09390 | 664.39000 |
| 1.750 | 26.764 | -5.43320 | 1649.39999 | .87430 | .86770 | .85350 | .75190 | .77050 | .78310 | .08120 | 664.11000 |
| | GRADIENT | -0.00079 | -0.00408 | .00096 | .00040 | .00030 | .00174 | .00174 | .00120 | .00012 | -0.08166 |

RUN NO. 315/ 0 RM/L = 3.0M GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PF%) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.936 | -0.026 | -5.97310 | 1841.70000 | .79570 | .78200 | .74920 | .64950 | .67320 | .69700 | .05540 | 660.44000 |
| 1.936 | 1.964 | -5.96960 | 1843.10001 | .79800 | .78470 | .74500 | .65510 | .67940 | .70110 | .06340 | 660.94000 |
| 1.936 | 4.034 | -5.97000 | 1843.10001 | .80040 | .78770 | .75090 | .65740 | .68290 | .70390 | .06370 | 660.94000 |
| 1.936 | 6.098 | -5.97220 | 1841.70000 | .80040 | .79180 | .75480 | .66100 | .68540 | .70490 | .06360 | 660.44000 |
| 1.936 | 8.161 | -5.97120 | 1841.70000 | .80150 | .79250 | .75740 | .65980 | .68750 | .70850 | .06270 | 660.44000 |
| 1.936 | 10.222 | -5.96910 | 1841.70000 | .80210 | .79410 | .77170 | .66400 | .69170 | .70840 | .05120 | 660.44000 |
| 1.936 | 12.262 | -5.96920 | 1841.70000 | .80150 | .79260 | .77430 | .67020 | .69230 | .71040 | .05930 | 660.44000 |
| 1.936 | 14.346 | -5.96630 | 1841.70000 | .80140 | .79100 | .77420 | .67020 | .69330 | .70900 | .05930 | 660.44000 |
| 1.936 | 16.423 | -5.96500 | 1841.00000 | .79790 | .78820 | .77270 | .66420 | .69330 | .70300 | .05930 | 660.44000 |
| 1.936 | 18.572 | -5.96530 | 1841.70000 | .79530 | .78670 | .77430 | .65790 | .68240 | .69900 | .05660 | 660.44000 |
| 1.936 | 20.594 | -5.96190 | 1841.70000 | .79490 | .78540 | .77380 | .65470 | .67770 | .69370 | .05520 | 660.44000 |
| 1.936 | 22.673 | -5.96030 | 1841.70000 | .79500 | .78540 | .77400 | .64710 | .67080 | .68850 | .05340 | 660.44000 |
| 1.936 | 24.737 | -5.95610 | 1841.00000 | .79500 | .78210 | .76310 | .64360 | .66430 | .68150 | .05120 | 660.18000 |
| 1.936 | 26.762 | -5.95210 | 1841.70000 | .78850 | .77820 | .75640 | .63700 | .65980 | .67560 | .05060 | 660.44000 |
| | GRADIENT | .00075 | .00425 | .00116 | .00148 | .00043 | .00194 | .00194 | .00170 | .00041 | .12231 |

(BETRO3) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0 (PSF) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| 2.250 | -1.100 | -6.11270 | 2045.39999 | .69780 | .68270 | .63840 | .52150 | .55560 | .58260 | .04120 | 626.99000 |
| 2.250 | 1.181 | -6.11300 | 2044.70000 | .69930 | .68400 | .63340 | .52390 | .55770 | .58650 | .04000 | 626.77000 |
| 2.250 | 3.241 | -6.11290 | 2044.70000 | .69960 | .68660 | .63930 | .52900 | .56150 | .58840 | .03660 | 626.77000 |
| 2.250 | 5.996 | -6.10990 | 2044.70000 | .70210 | .69340 | .65680 | .53360 | .56320 | .59220 | .03870 | 626.77000 |
| 2.250 | 8.052 | -6.11170 | 2044.70000 | .70510 | .69450 | .66290 | .53820 | .56960 | .59230 | .03220 | 626.77000 |
| 2.250 | 10.105 | -6.11200 | 2044.70000 | .70450 | .69350 | .66670 | .54090 | .57000 | .59360 | .03520 | 626.77000 |
| 2.250 | 12.135 | -6.10990 | 2046.10001 | .70360 | .69180 | .66810 | .54520 | .57240 | .59420 | .03420 | 627.21000 |
| 2.250 | 14.213 | -6.10950 | 2049.70001 | .70360 | .69040 | .67060 | .54500 | .57190 | .59280 | .03460 | 626.29000 |
| 2.250 | 16.342 | -6.10270 | 2051.79999 | .70360 | .69020 | .66720 | .53950 | .56940 | .59070 | .03450 | 626.94000 |
| 2.250 | 18.425 | -6.10090 | 2052.50000 | .69950 | .68540 | .66900 | .53480 | .56420 | .58620 | .03520 | 626.16000 |
| 2.250 | 20.440 | -6.09860 | 2051.79999 | .69950 | .68430 | .66690 | .53500 | .56420 | .5870 | .03230 | 626.94000 |
| 2.250 | 22.509 | -6.09470 | 2051.79999 | .69580 | .68070 | .66350 | .52690 | .55530 | .57570 | .03160 | 626.94000 |
| 2.250 | 24.563 | -6.09180 | 2052.29999 | .69160 | .67640 | .65370 | .51900 | .54690 | .56830 | .03070 | 630.03000 |
| 2.250 | 25.593 | -6.08900 | 2052.89999 | .68710 | .67220 | .64720 | .51610 | .54010 | .56200 | .03050 | 631.11000 |
| | GRADIENT | -.00005 | -.17209 | .00044 | .00097 | .00024 | .00162 | .00146 | .00143 | -.00064 | -.05409 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0 (PSF) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| 2.499 | .034 | -4.91730 | 1500.80000 | .60610 | .59210 | .54270 | .41050 | .44720 | .47640 | .02430 | 364.69000 |
| 2.499 | 2.131 | -4.94050 | 1500.10001 | .60630 | .59350 | .54520 | .41410 | .45100 | .48160 | .02370 | 364.50000 |
| 2.499 | 4.183 | -4.96100 | 1499.39999 | .60790 | .59610 | .55210 | .41990 | .45610 | .48540 | .02320 | 364.32000 |
| 2.499 | 6.219 | -4.97910 | 1500.10001 | .60920 | .59930 | .55910 | .42550 | .46030 | .48950 | .02300 | 364.50000 |
| 2.499 | 8.250 | -4.99180 | 1500.10001 | .60820 | .59820 | .56220 | .43180 | .46500 | .49240 | .02250 | 364.50000 |
| 2.499 | 10.297 | -5.00220 | 1500.10001 | .60930 | .59800 | .56390 | .43650 | .46780 | .49240 | .02100 | 364.50000 |
| 2.499 | 12.331 | -5.00960 | 1500.10001 | .60910 | .59600 | .56980 | .43920 | .47000 | .49340 | .02030 | 364.50000 |
| 2.499 | 14.382 | -5.00390 | 1500.10001 | .60840 | .59420 | .57040 | .44040 | .47050 | .49240 | .01960 | 364.50000 |
| 2.499 | 16.443 | -5.00790 | 1500.10001 | .60720 | .59190 | .56950 | .44000 | .46820 | .49070 | .01990 | 364.50000 |
| 2.499 | 18.461 | -5.00240 | 1500.10001 | .60470 | .58890 | .56770 | .43730 | .46580 | .48770 | .01870 | 364.50000 |
| 2.499 | 20.507 | -4.99270 | 1500.10001 | .60310 | .58650 | .56500 | .43300 | .46100 | .48230 | .01850 | 364.50000 |
| 2.499 | 22.544 | -4.97780 | 1500.10001 | .59770 | .58200 | .56120 | .42750 | .45510 | .47650 | .01800 | 364.50000 |
| 2.499 | 24.562 | -4.96950 | 1500.10001 | .59360 | .57880 | .55830 | .42050 | .44650 | .46820 | .01840 | 364.50000 |
| 2.499 | 25.564 | -4.96490 | 1500.10001 | .59080 | .57640 | .55540 | .41760 | .44230 | .46400 | .01820 | 364.50000 |
| | GRADIENT | -.01063 | -.34235 | .00044 | .00098 | .00230 | .00225 | .00218 | .00220 | -.00027 | -.09047 |

PARAMETRIC DATA

REFERENCE DATA

SREF = 2593.0000 SQ.FT. XMRP = 1076.6806 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0 (PSF) |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 3.040 | -0.005 | -4.89390 | 2608.60001 | .41660 | .40490 | .35160 | .29200 | .26650 | .29510 | .01900 | 333.30000 |
| 3.040 | 2.030 | -4.92640 | 2007.89999 | .41750 | .40640 | .35600 | .23410 | .26850 | .29780 | .00940 | 333.18000 |
| 3.040 | 4.060 | -4.92740 | 2008.60001 | .41840 | .40840 | .36290 | .24320 | .27310 | .30100 | .00870 | 333.30000 |
| 3.040 | 6.109 | -4.94570 | 2008.60001 | .41960 | .40880 | .36750 | .24320 | .26930 | .30340 | .00890 | 333.30000 |
| 3.040 | 8.123 | -4.95860 | 2008.60001 | .41990 | .40880 | .37360 | .24920 | .26950 | .30520 | .00870 | 333.30000 |
| 3.040 | 10.160 | -4.95750 | 2008.60001 | .41990 | .40710 | .37400 | .25380 | .26940 | .30760 | .00820 | 333.30000 |
| 3.040 | 12.192 | -4.97410 | 2008.60001 | .42100 | .40580 | .37640 | .25650 | .26870 | .30810 | .00810 | 333.30000 |
| 3.040 | 14.217 | -4.97410 | 2008.60001 | .42140 | .40460 | .37870 | .25840 | .26850 | .30900 | .00830 | 333.30000 |
| 3.040 | 16.249 | -4.97350 | 2008.60001 | .42090 | .40320 | .37760 | .25980 | .26830 | .30930 | .00820 | 333.30000 |
| 3.040 | 18.282 | -4.96550 | 2008.60001 | .41950 | .40230 | .37500 | .26140 | .26840 | .30720 | .00770 | 333.30000 |
| 3.040 | 20.327 | -4.95740 | 2007.89999 | .41750 | .39780 | .37270 | .25670 | .26330 | .30410 | .00750 | 333.18000 |
| 3.040 | 22.356 | -4.94280 | 2008.60001 | .41380 | .39470 | .36920 | .25330 | .27280 | .29300 | .00730 | 333.30000 |
| 3.040 | 24.402 | -4.92490 | 2007.89999 | .40840 | .39050 | .36520 | .24880 | .27260 | .29260 | .00730 | 333.15000 |
| 3.040 | 25.411 | -4.91470 | 2008.60001 | .40500 | .38780 | .36450 | .24620 | .26940 | .28910 | .00730 | 333.30000 |
| GRADIENT | | | | .00052 | .00086 | .00278 | .00167 | .00162 | .00145 | .00020 | .00003 |

RUN NO. 440/ 0 RAKL = 1.97 GRADIENT INTERVAL = -5.004 5.00

RUN NO. 431/ 0 RAKL = 1.99 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0 (PSF) |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 3.499 | -0.189 | -5.09780 | 2544.10001 | .29740 | .28900 | .24080 | .14410 | .17120 | .19490 | .00530 | 286.32000 |
| 3.499 | 1.829 | -5.12230 | 2544.10001 | .29890 | .28660 | .24540 | .14599 | .17570 | .19770 | .00530 | 286.32000 |
| 3.499 | 3.854 | -5.14290 | 2542.60001 | .30060 | .29110 | .25140 | .14870 | .17670 | .20340 | .00490 | 286.16000 |
| 3.499 | 5.891 | -5.15910 | 2542.60001 | .30150 | .29120 | .25590 | .15220 | .17960 | .20200 | .00470 | 286.16000 |
| 3.499 | 7.907 | -5.17240 | 2541.69999 | .30180 | .29030 | .25990 | .15750 | .18350 | .20410 | .00450 | 286.02000 |
| 3.499 | 9.935 | -5.18230 | 2545.50000 | .30330 | .28920 | .26010 | .16080 | .18560 | .20560 | .00440 | 286.46000 |
| 3.499 | 11.964 | -5.18990 | 2550.39999 | .30400 | .28850 | .26298 | .16350 | .18730 | .20670 | .00450 | 287.04000 |
| 3.499 | 14.007 | -5.19330 | 2554.00001 | .30470 | .28720 | .26460 | .16597 | .18910 | .20800 | .00430 | 287.43000 |
| 3.499 | 16.021 | -5.18830 | 2559.60001 | .30400 | .28500 | .26240 | .16670 | .19000 | .20700 | .00440 | 288.07000 |
| 3.499 | 18.075 | -5.18060 | 2563.89999 | .30270 | .28320 | .26400 | .16670 | .18940 | .20770 | .00420 | 289.52000 |
| 3.499 | 20.120 | -5.17210 | 2563.50000 | .30020 | .28150 | .25750 | .16600 | .18770 | .20550 | .00430 | 289.15000 |
| 3.499 | 22.110 | -5.15660 | 2575.20001 | .29620 | .27810 | .25450 | .16330 | .18480 | .20180 | .00430 | 289.65000 |
| 3.499 | 24.139 | -5.13750 | 2575.89999 | .29100 | .27400 | .25100 | .15990 | .18200 | .20000 | .00410 | 289.90000 |
| 3.499 | 25.154 | -5.12780 | 2578.70001 | .28900 | .27180 | .24970 | .15670 | .17780 | .19420 | .00410 | 290.22000 |
| GRADIENT | | | | .00079 | .00077 | .00262 | .00114 | .00136 | .00135 | .00010 | .00003 |

(BETROCH) : 02 AUG 76

TABLATED DATA - 0A161 (ARC 11-97-87-09%)
ARC 11-97-87-09% 0A161 ORBFITER + RAKES.

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 304/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.004/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| 1.556 | 1.029 | -2.59140 | 1573.70000 | .92910 | .92910 | .92910 | .88970 | .69770 | .93470 | .15110 | 669.55000 |
| 1.555 | 2.035 | -2.57970 | 1573.00000 | .93010 | .92220 | .91480 | .88160 | .89870 | .90560 | .14990 | 669.25000 |
| 1.556 | 4.118 | -2.58950 | 1572.00000 | .93270 | .92540 | .91830 | .88520 | .90280 | .90880 | .14860 | 669.25000 |
| 1.555 | 6.182 | -2.59110 | 1573.00000 | .93430 | .92780 | .92060 | .88690 | .90480 | .91050 | .14900 | 669.25000 |
| 1.555 | 8.258 | -2.57990 | 1573.70000 | .93700 | .93190 | .92500 | .89200 | .90950 | .90990 | .14680 | 669.55000 |
| 1.556 | 10.330 | -2.58000 | 1573.00000 | .93760 | .93290 | .92260 | .89090 | .90260 | .91110 | .14380 | 669.25000 |
| 1.556 | 12.378 | -2.58140 | 1573.00000 | .93920 | .93510 | .92310 | .89440 | .90390 | .91020 | .13790 | 669.25000 |
| 1.556 | 14.469 | -2.58900 | 1573.00000 | .94200 | .93940 | .92100 | .89140 | .89950 | .90600 | .13650 | 669.25000 |
| 1.556 | 16.617 | -2.58160 | 1573.70000 | .93140 | .92890 | .91890 | .88650 | .89330 | .90530 | .13640 | 669.25000 |
| 1.556 | 18.776 | -2.57930 | 1573.00000 | .92930 | .92570 | .91390 | .88300 | .89420 | .90230 | .13470 | 669.56000 |
| 1.555 | 20.953 | -2.57990 | 1572.00000 | .92570 | .92140 | .90750 | .87260 | .88330 | .89190 | .12380 | 669.55000 |
| 1.556 | 23.143 | -2.57260 | 1573.70000 | .91740 | .91370 | .90280 | .87190 | .8720 | .88330 | .12080 | 669.55000 |
| 1.556 | 25.343 | -2.56900 | 1572.00000 | .91740 | .91370 | .90280 | .87190 | .8720 | .88330 | .12080 | 669.55000 |
| | GRADIENT | .00022 | -.34319 | .00089 | .00057 | .00150 | .00135 | .00140 | .00101 | -.00056 | -.14709 |

RUN NO. 307/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.004/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|----------|------------|--------|--------|---------|--------|--------|--------|---------|-----------|
| 1.750 | 1.033 | -2.41170 | 1649.39999 | .85990 | .85930 | .85636 | .80570 | .82130 | .83520 | .10420 | 664.11000 |
| 1.750 | 1.934 | -2.41270 | 1651.50000 | .87160 | .87090 | .86330 | .80900 | .82440 | .83660 | .10410 | 664.96000 |
| 1.750 | 2.979 | -2.41220 | 1652.63999 | .87190 | .86020 | .83530 | .81110 | .82540 | .84000 | .10360 | 665.53000 |
| 1.750 | 4.047 | -2.41220 | 1653.60001 | .87380 | .86530 | .84420 | .81390 | .82710 | .84110 | .10370 | 665.82000 |
| 1.750 | 5.111 | -2.41260 | 1652.63999 | .87380 | .86730 | .84950 | .81620 | .82960 | .84270 | .10260 | 665.53000 |
| 1.750 | 6.181 | -2.41100 | 1653.60001 | .87560 | .86870 | .85230 | .81170 | .83090 | .84510 | .10010 | 665.82000 |
| 1.750 | 7.226 | -2.41040 | 1655.00000 | .87470 | .86960 | .85480 | .81350 | .8340 | .84420 | .09820 | 666.39000 |
| 1.750 | 8.251 | -2.40990 | 1656.00000 | .87270 | .86760 | .85448 | .82240 | .83260 | .84360 | .09620 | 666.39000 |
| 1.750 | 9.255 | -2.40990 | 1654.30000 | .87230 | .86570 | .85600 | .81750 | .83000 | .84190 | .09510 | 666.10000 |
| 1.750 | 10.220 | -2.40990 | 1655.70000 | .87020 | .86430 | .85350 | .80940 | .82650 | .83720 | .09350 | 665.67000 |
| 1.750 | 11.159 | -2.40920 | 1657.00001 | .86720 | .85960 | .84590 | .80570 | .82230 | .83410 | .09350 | 667.24000 |
| 1.750 | 12.073 | -2.40880 | 1657.00001 | .86910 | .85310 | .83700 | .79930 | .81450 | .82640 | .09390 | 667.24000 |
| 1.750 | 12.959 | -2.40830 | 1657.00001 | .86690 | .85048 | .83450 | .79600 | .81150 | .82340 | .09260 | 667.24000 |
| | GRADIENT | -.00012 | .85826 | .00073 | .00047 | -.00024 | .00132 | .00100 | .00093 | -.00010 | .54822 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(BETRON) (02-AUG 75)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LSEF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 314/ 0 R/V/L = 3.06 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | FT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|-------|----------|------------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.995 | -2.92380 | 1842.39999 | 77900 | .76160 | .72830 | .72930 | .67540 | .70920 | .72590 | .08600 | 660.69000 |
| 1.995 | -2.92510 | 1842.39999 | 78120 | .76290 | .72370 | .72370 | .68070 | .70510 | .72830 | .08530 | 660.69000 |
| 1.995 | -2.92340 | 1841.70000 | 78080 | .76450 | .72410 | .73850 | .68480 | .71950 | .72240 | .08520 | 660.69000 |
| 1.995 | -2.92210 | 1842.39999 | 78240 | .76930 | .73950 | .74330 | .69070 | .71540 | .73560 | .08500 | 660.69000 |
| 1.995 | -2.92570 | 1842.39999 | 78250 | .76910 | .74430 | .74600 | .69420 | .71260 | .73700 | .08500 | 660.69000 |
| 1.995 | -2.92440 | 1841.70000 | 78170 | .76990 | .74600 | .74600 | .69280 | .72010 | .73760 | .08500 | 660.69000 |
| 1.995 | -2.92230 | 1841.70000 | 78500 | .77500 | .75380 | .75380 | .69350 | .71930 | .73700 | .08500 | 660.69000 |
| 1.995 | -2.92300 | 1841.70000 | 78470 | .77400 | .75380 | .75380 | .69350 | .71930 | .73700 | .08500 | 660.69000 |
| 1.995 | -2.92110 | 1841.70000 | 78250 | .77300 | .75480 | .75480 | .69300 | .71740 | .73620 | .08500 | 660.69000 |
| 1.995 | -2.91870 | 1841.70000 | 77710 | .76800 | .75480 | .75480 | .69300 | .71740 | .73620 | .08500 | 660.69000 |
| 1.995 | -2.91560 | 1841.70000 | 77610 | .76510 | .75900 | .75900 | .69170 | .72210 | .72590 | .08500 | 660.69000 |
| 1.995 | -2.91630 | 1842.39999 | 77040 | .75900 | .73770 | .73770 | .68010 | .70210 | .71760 | .08500 | 660.69000 |
| 1.995 | -2.91630 | 1842.39999 | 76510 | .75900 | .73110 | .73110 | .67320 | .70210 | .71760 | .08500 | 660.69000 |
| 1.995 | -2.91727 | 1842.39999 | 76300 | .75170 | .72930 | .72930 | .67780 | .70130 | .71550 | .08500 | 660.69000 |
| 1.995 | -2.90950 | 1848.10001 | .00044 | .00072 | .00072 | .00103 | .00230 | .00205 | .00161 | .00000 | .00000 |
| 1.995 | .00010 | -.17395 | | | | | | | | | |

RUN NO. 317/ 0 R/V/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|-------|----------|------------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 2.250 | -3.07790 | 2053.60001 | 67280 | .64960 | .60360 | .60360 | .54920 | .58720 | .61540 | .04100 | 631.33000 |
| 2.250 | -3.07710 | 2058.89999 | 67560 | .65330 | .60870 | .60870 | .55230 | .59050 | .61600 | .04080 | 631.33000 |
| 2.250 | -3.07600 | 2058.89999 | 67600 | .65520 | .61150 | .61150 | .55580 | .59300 | .61900 | .04000 | 631.33000 |
| 2.250 | -3.07470 | 2058.89999 | 67820 | .65980 | .62180 | .62180 | .56170 | .59450 | .62300 | .03890 | 631.33000 |
| 2.250 | -3.07480 | 2059.60001 | 68040 | .66250 | .62900 | .62900 | .56550 | .59560 | .62520 | .03800 | 631.33000 |
| 2.250 | -3.07160 | 2060.29999 | 67930 | .66300 | .63070 | .63070 | .57220 | .60210 | .62620 | .03720 | 631.33000 |
| 2.250 | -3.07080 | 2060.29999 | 67810 | .66270 | .63550 | .63550 | .57530 | .60380 | .62590 | .03650 | 631.33000 |
| 2.250 | -3.06930 | 2060.29999 | 67670 | .66150 | .63950 | .63950 | .57810 | .60450 | .62460 | .03570 | 631.33000 |
| 2.250 | -3.06930 | 2060.29999 | 67500 | .66150 | .63980 | .63980 | .57690 | .60380 | .62460 | .03490 | 631.33000 |
| 2.250 | -3.06650 | 2060.29999 | 67170 | .65570 | .63570 | .63570 | .57140 | .60000 | .62000 | .03410 | 631.33000 |
| 2.250 | -3.06440 | 2060.29999 | 66940 | .65550 | .63570 | .63570 | .56930 | .59450 | .61900 | .03330 | 631.33000 |
| 2.250 | -3.05750 | 2060.29999 | 66570 | .65260 | .62620 | .62620 | .56260 | .58900 | .61300 | .03250 | 631.33000 |
| 2.250 | -3.05420 | 2060.29999 | 66120 | .64770 | .61850 | .61850 | .55550 | .58190 | .60490 | .03160 | 631.33000 |
| 2.250 | -3.05240 | 2060.29999 | 65970 | .64490 | .61610 | .61610 | .55210 | .57870 | .60100 | .03080 | 631.33000 |
| 2.250 | .00047 | -.17234 | .00039 | .00138 | .00138 | .00195 | .00416 | .00101 | .00089 | .00000 | .00000 |

(BETRON) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ATLRON = .000 BOFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | RUN NO. | WZ/0 | RVAL | 2.01 | GRADIENT INTERVAL | -5.004 | 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|----------|------------|---------|------|------|------|-------------------|--------|------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 2.499 | .110 | -1.94200 | 1500.10001 | | | | | | | | .57740 | .55400 | .50080 | .44340 | .48610 | .51680 | .02510 | 384.50000 |
| 2.499 | 2.147 | -1.95050 | 1500.10001 | | | | | | | | .57980 | .55710 | .50560 | .44580 | .48960 | .51960 | .02470 | 384.50000 |
| 2.499 | 4.174 | -1.96070 | 1500.10001 | | | | | | | | .58230 | .56070 | .51270 | .45200 | .49260 | .52400 | .02380 | 384.50000 |
| 2.499 | 6.223 | -1.96890 | 1500.10084 | | | | | | | | .58390 | .56430 | .52080 | .45710 | .49708 | .52820 | .02430 | 384.50000 |
| 2.499 | 8.251 | -1.97540 | 1500.10001 | | | | | | | | .58410 | .56590 | .52480 | .46340 | .50020 | .52710 | .02390 | 384.50000 |
| 2.499 | 1.793 | -1.97980 | 1500.10001 | | | | | | | | .58490 | .56770 | .52920 | .46770 | .50230 | .52860 | .02230 | 384.50000 |
| 2.499 | 1.338 | -1.98220 | 1500.10001 | | | | | | | | .58490 | .56820 | .53200 | .47080 | .50440 | .52860 | .02080 | 384.50000 |
| 2.499 | 14.382 | -1.98470 | 1496.60001 | | | | | | | | .58360 | .56590 | .53830 | .47410 | .50570 | .52860 | .02030 | 383.78000 |
| 2.499 | 16.418 | -1.98380 | 1487.30000 | | | | | | | | .57660 | .56240 | .53720 | .47590 | .50630 | .52440 | .01928 | 383.78000 |
| 2.499 | 18.492 | -1.98320 | 1497.30000 | | | | | | | | .57260 | .55810 | .53430 | .47430 | .50340 | .52030 | .01920 | 383.78000 |
| 2.499 | 20.523 | -1.98100 | 1496.60001 | | | | | | | | .56880 | .55430 | .53180 | .47190 | .49990 | .51480 | .01920 | 383.78000 |
| 2.499 | 22.559 | -1.97580 | 1497.30000 | | | | | | | | .56420 | .54990 | .52290 | .46780 | .48800 | .50960 | .01890 | 383.78000 |
| 2.499 | 24.593 | -1.97050 | 1497.30000 | | | | | | | | .55840 | .54500 | .52020 | .46300 | .48470 | .50670 | .01890 | 383.78000 |
| 2.499 | 26.629 | -1.96640 | 1497.30000 | | | | | | | | .55380 | .54030 | .52020 | .45980 | .48470 | .50670 | .01890 | 383.78000 |
| 2.499 | GRADIENT | | | | | | | | | | .00121 | .00165 | .00293 | .00212 | .00160 | .00177 | .00032 | .00000 |

| MACH | ALPHA | BETA | PT | RUN NO. | WZ/0 | RVAL | 1.97 | GRADIENT INTERVAL | -5.00/ | 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|----------|------------|---------|------|------|------|-------------------|--------|------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 3.040 | .039 | -1.86350 | 2018.50000 | | | | | | | | .39570 | .37420 | .31510 | .26240 | .30380 | .33470 | .01000 | 334.47000 |
| 3.040 | 2.071 | -1.87300 | 2015.70000 | | | | | | | | .39720 | .37390 | .32020 | .26430 | .30570 | .33680 | .01010 | 334.47000 |
| 3.040 | 4.096 | -1.88260 | 2012.89999 | | | | | | | | .39810 | .37600 | .32480 | .26780 | .30850 | .33850 | .00950 | 334.47000 |
| 3.040 | 6.126 | -1.89100 | 2007.89999 | | | | | | | | .39850 | .37820 | .33410 | .27270 | .31220 | .34070 | .00930 | 333.18000 |
| 3.040 | 8.151 | -1.89630 | 2007.89999 | | | | | | | | .39880 | .38030 | .33750 | .28010 | .31880 | .34340 | .00870 | 333.18000 |
| 3.040 | 10.189 | -1.89930 | 2008.60001 | | | | | | | | .39820 | .38180 | .34190 | .28390 | .31880 | .34490 | .00860 | 333.30000 |
| 3.040 | 12.246 | -1.90430 | 2008.60001 | | | | | | | | .39740 | .38300 | .34790 | .28720 | .32000 | .34500 | .00800 | 333.18000 |
| 3.040 | 14.285 | -1.90530 | 2007.89999 | | | | | | | | .39790 | .37970 | .35040 | .29110 | .32260 | .34620 | .00790 | 333.30000 |
| 3.040 | 16.298 | -1.90580 | 2008.60001 | | | | | | | | .39750 | .37990 | .34940 | .29350 | .32410 | .34620 | .00790 | 333.30000 |
| 3.040 | 18.331 | -1.90290 | 2007.89999 | | | | | | | | .39750 | .37990 | .34940 | .29420 | .32320 | .34600 | .00820 | 333.30000 |
| 3.040 | 20.382 | -1.89960 | 2008.60001 | | | | | | | | .39790 | .37990 | .34940 | .29310 | .32090 | .34610 | .00850 | 333.30000 |
| 3.040 | 22.429 | -1.89560 | 2008.60001 | | | | | | | | .39750 | .37950 | .34350 | .29310 | .31630 | .34610 | .00790 | 333.30000 |
| 3.040 | 24.449 | -1.89970 | 2008.60001 | | | | | | | | .39750 | .37950 | .34350 | .28970 | .31630 | .33150 | .00800 | 333.30000 |
| 3.040 | 26.466 | -1.88860 | 2008.60001 | | | | | | | | .39490 | .37610 | .33610 | .28570 | .30770 | .32870 | .00800 | 333.30000 |
| 3.040 | GRADIENT | | | | | | | | | | .00471 | .00118 | .00239 | .00133 | .00116 | .00094 | .00012 | .00000 |

ORIGINAL PAGE IS OF POOR QUALITY

(BETRON) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 ATLRON = .000 BDFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0800 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 4327 0 RML = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(MPS) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| 3.499 | -1.180 | -1.98260 | 2607.00000 | .28020 | .25940 | .20830 | .16546 | .20050 | .22690 | .00530 | 293.40000 |
| 3.499 | 1.873 | -1.99070 | 2608.39999 | .28110 | .26120 | .21220 | .16740 | .20250 | .22950 | .00510 | 293.56000 |
| 3.499 | 3.873 | -2.00030 | 2609.10001 | .28180 | .26400 | .21790 | .17120 | .20570 | .23210 | .00510 | 293.64000 |
| 3.499 | 5.897 | -2.00980 | 2612.70001 | .28140 | .26490 | .22530 | .17460 | .20780 | .23288 | .00490 | 294.04000 |
| 3.499 | 7.941 | -2.01130 | 2612.70001 | .28120 | .26670 | .22830 | .18030 | .21110 | .23500 | .00490 | 294.04000 |
| 3.499 | 9.942 | -2.01790 | 2617.60001 | .27980 | .26730 | .23120 | .18400 | .21390 | .23690 | .00450 | 294.60000 |
| 3.499 | 11.971 | -2.02110 | 2614.10001 | .27970 | .26730 | .23680 | .18780 | .21620 | .23830 | .00450 | 294.44000 |
| 3.499 | 13.998 | -2.02160 | 2616.20001 | .27730 | .26430 | .23800 | .19100 | .21820 | .23900 | .00450 | 294.20000 |
| 3.499 | 16.031 | -2.02120 | 2614.10001 | .27450 | .26060 | .23720 | .19330 | .21920 | .23750 | .00440 | 294.56000 |
| 3.499 | 18.083 | -2.01960 | 2615.50000 | .27258 | .25420 | .23540 | .19460 | .21920 | .23550 | .00460 | 294.60000 |
| 3.499 | 20.096 | -2.01640 | 2614.10001 | .26940 | .25080 | .23260 | .19340 | .21430 | .23190 | .00450 | 294.68000 |
| 3.499 | 22.126 | -2.01280 | 2618.29999 | .26580 | .24500 | .22970 | .19110 | .21430 | .22810 | .00440 | 295.23000 |
| 3.499 | 24.161 | -2.00710 | 2623.29999 | .26090 | .24500 | .22630 | .18770 | .20960 | .22610 | .00460 | 295.87000 |
| 3.499 | 25.182 | -2.00100 | 2628.89999 | .25780 | .24350 | .22430 | .18610 | .20750 | .22570 | .00460 | 295.87000 |
| 3.499 | GRADIENT | -.00437 | .51884 | .00039 | .00138 | .00237 | .00143 | .00128 | .00128 | -.00005 | .05929 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)

(BE7R05)

02 AUG 75

PAGE 555

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0800 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|------|----------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .596 | .077 | .18030 | 2642.39999 | 1.00050 | 1.00060 | 1.00030 | .99890 | 1.00030 | 1.00010 | .88930 | 517.31000 |
| .596 | 2.128 | .20500 | 2642.39999 | 1.00040 | 1.00040 | 1.00030 | 1.00010 | 1.00010 | 1.00010 | .93610 | 517.31000 |
| .597 | 4.186 | .20500 | 2642.39999 | 1.00040 | 1.00050 | 1.00040 | 1.00060 | 1.00030 | 1.00000 | .96350 | 516.70000 |
| .596 | 6.256 | .21280 | 2642.39999 | 1.00010 | 1.00020 | 1.00050 | 1.00040 | 1.00020 | 1.00010 | .97850 | 516.72000 |
| .596 | 8.352 | .21850 | 2642.39999 | 1.00040 | 1.00020 | 1.00020 | 1.00000 | 1.00020 | 1.00030 | .98760 | 517.31000 |
| .596 | 15.447 | .21680 | 2642.39999 | 1.00010 | 1.00040 | 1.00040 | .99990 | 1.00030 | 1.00088 | .99240 | 516.72000 |
| .596 | 12.543 | .21660 | 2642.39999 | 1.00010 | 1.00010 | 1.00020 | .99990 | 1.00010 | .99950 | .99560 | 516.72000 |
| .596 | 14.659 | .22750 | 2642.39999 | 1.00030 | 1.00010 | 1.00030 | .99980 | .99986 | .99970 | .99590 | 517.31000 |
| .597 | 17.776 | .22120 | 2642.39999 | .99970 | .99950 | .99950 | .99990 | .99950 | .99950 | .99700 | 517.31000 |
| .594 | 15.830 | .21980 | 2642.39999 | .99870 | .99930 | .99870 | .99890 | .99900 | .99870 | .99760 | 513.70000 |
| .594 | 21.003 | .20840 | 2642.39999 | .99710 | .99780 | .98640 | .99730 | .99790 | .99870 | .99840 | 513.70000 |
| .599 | 23.112 | .20610 | 2632.50000 | .99400 | .99520 | .99180 | .99410 | .99620 | .99650 | .99720 | 518.29000 |
| .597 | 25.183 | .21330 | 2651.79999 | .98820 | .99050 | .98450 | .98900 | .99270 | .99310 | .99480 | 516.53000 |
| | GRADIENT | .00601 | -.00002 | -.00002 | -.00002 | .00002 | .00017 | .00000 | -.00002 | .01805 | 282.6 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|------|----------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .900 | .047 | .19640 | 2114.00000 | .99960 | 1.00000 | .99990 | .99970 | .98970 | .98940 | .96030 | 708.55000 |
| .899 | 2.145 | .21110 | 2114.70001 | .99970 | .99960 | .99970 | 1.00010 | 1.00030 | .99870 | .97720 | 707.74000 |
| .901 | 4.251 | .21320 | 2117.60001 | 1.00000 | .99950 | .99950 | .99950 | .99960 | .98950 | .98590 | 710.56000 |
| .899 | 6.354 | .21700 | 2115.39999 | .99950 | .99950 | .99920 | .99910 | .99930 | .99920 | .99130 | 708.23000 |
| .897 | 8.469 | .21800 | 2114.70001 | 1.00040 | .99960 | .99950 | .99950 | 1.00000 | 1.00000 | .99490 | 706.50000 |
| .898 | 16.597 | .21460 | 2117.60001 | 1.00040 | 1.00020 | 1.00040 | 1.00020 | 1.00020 | .99980 | .99540 | 707.98000 |
| .899 | 12.720 | .22140 | 2116.20001 | .99950 | .99970 | .99980 | .99930 | .99920 | .99980 | .99710 | 708.73000 |
| .900 | 14.863 | .23340 | 2116.89999 | .99938 | .99950 | .99910 | .99920 | .99940 | .99920 | .99760 | 710.07000 |
| .899 | 17.013 | .21610 | 2115.20001 | .99900 | .99950 | .99940 | .99910 | .99960 | .99960 | .99710 | 707.29000 |
| .895 | 21.283 | .20940 | 2116.20001 | .99610 | .99780 | .99790 | .99770 | .99860 | .99840 | .99710 | 705.70000 |
| .897 | 23.397 | .20540 | 2116.20001 | .99270 | .99450 | .99060 | .99240 | .99480 | .99560 | .99610 | 707.00000 |
| .896 | 25.438 | .21610 | 2116.20001 | .98590 | .98920 | .98230 | .98740 | .99170 | .99150 | .99440 | 706.57000 |
| | GRADIENT | .00399 | .85671 | .00010 | -.00012 | -.00010 | -.00005 | -.00002 | .00002 | .00609 | 478.0 |

(BETROS) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094-0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA ATLRON = .000
ELEVON = .000
BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 16/ 0 RVAL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|-------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.199 | .044 | .17490 | 2008.60001 | .99360 | .99350 | .99300 | .99320 | .99300 | .99280 | .99140 | 834.56000 |
| 1.204 | 2.147 | .17600 | 2010.10001 | .99430 | .99380 | .99300 | .99290 | .99340 | .99290 | .99140 | 836.66000 |
| 1.209 | 4.270 | .22600 | 2007.89999 | .99420 | .99370 | .99310 | .99310 | .99350 | .99370 | .99230 | 834.77000 |
| 1.195 | 6.389 | .21090 | 2009.39999 | .99440 | .99420 | .99360 | .99338 | .99400 | .99440 | .99280 | 837.95000 |
| 1.198 | 8.551 | .22430 | 2009.39999 | .99460 | .99400 | .99340 | .99330 | .99420 | .99420 | .99260 | 834.55000 |
| 1.195 | 10.721 | .22420 | 2008.60001 | .99450 | .99430 | .99360 | .99290 | .99340 | .99340 | .99260 | 833.32000 |
| 1.196 | 12.879 | .21610 | 2009.39999 | .99450 | .99430 | .99360 | .99290 | .99340 | .99340 | .99260 | 833.95000 |
| 1.196 | 15.042 | .21970 | 2009.39999 | .99450 | .99430 | .99360 | .99290 | .99340 | .99340 | .99260 | 833.95000 |
| 1.198 | 17.205 | .21220 | 2008.60001 | .99150 | .99220 | .99100 | .99070 | .99100 | .99140 | .99130 | 832.35000 |
| 1.191 | 19.361 | .20840 | 2009.39999 | .98940 | .99060 | .98900 | .98910 | .98900 | .98940 | .99040 | 832.69000 |
| 1.190 | 21.506 | .20530 | 2010.80000 | .98658 | .98830 | .98590 | .98804 | .98804 | .98840 | .98970 | 833.53000 |
| 1.193 | 23.650 | .20800 | 2010.10001 | .98100 | .98460 | .98290 | .98340 | .98600 | .98550 | .98820 | 831.94000 |
| 1.189 | 25.795 | .20610 | 2009.39999 | .00014 | .00005 | .00002 | .00002 | .00012 | .00021 | .00019 | .04815 |

RUN NO. 12/ 0 RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|-------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.399 | .023 | .21940 | 2046.10001 | .96340 | .95660 | .95810 | .94960 | .95340 | .95910 | .96440 | 882.14000 |
| 1.401 | 2.114 | .23550 | 2046.80000 | .96420 | .96030 | .96080 | .95250 | .95450 | .95950 | .96180 | 872.48000 |
| 1.399 | 4.216 | .18480 | 2046.10001 | .96440 | .96120 | .96080 | .95470 | .96490 | .95980 | .96040 | 882.15000 |
| 1.395 | 6.341 | .20820 | 2046.10001 | .96650 | .96240 | .96040 | .95430 | .95630 | .96170 | .96060 | 882.07000 |
| 1.395 | 8.495 | .22160 | 2047.50000 | .96640 | .96360 | .96050 | .95470 | .95599 | .96100 | .96050 | 882.67000 |
| 1.394 | 10.652 | .22480 | 2047.50000 | .96580 | .96150 | .96270 | .95380 | .95670 | .96080 | .96050 | 882.66000 |
| 1.393 | 12.797 | .23050 | 2046.80000 | .96540 | .96180 | .96310 | .95690 | .95740 | .96120 | .96260 | 882.32000 |
| 1.398 | 14.956 | .22300 | 2047.50000 | .96410 | .96080 | .96180 | .95520 | .95660 | .96100 | .96000 | 882.67000 |
| 1.392 | 17.115 | .20380 | 2046.80000 | .96220 | .95900 | .95880 | .95140 | .95560 | .96010 | .95910 | 882.38000 |
| 1.392 | 19.270 | .19820 | 2046.80000 | .96050 | .95720 | .95440 | .95070 | .95530 | .95950 | .95750 | 882.85000 |
| 1.391 | 21.424 | .22280 | 2048.29999 | .95720 | .95160 | .95200 | .94320 | .94950 | .95600 | .95600 | 882.85000 |
| 1.391 | 23.562 | .20640 | 2048.29999 | .94960 | .94680 | .94640 | .94170 | .94554 | .94860 | .95300 | 882.98000 |
| 1.395 | 25.695 | .20960 | 2049.80000 | .00024 | .00064 | .00064 | .00122 | .00036 | .00017 | .00095 | .00463 |

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TABULATED DATA - 0A16L (ARC 11-97-87-094)

ARC 11-97-87-094 0A16L ORBITER + RAKES

(BETROS) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRP = 936.6830 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

RUN NO. 303/ 0 RNAL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | O(PSF) |
|-------|----------|---------|------------|--------|---------|--------|--------|--------|--------|---------|---------|-----------|
| 1.566 | .037 | -.52700 | 1669.39999 | .92160 | .91580 | .89970 | .89450 | .91020 | .91560 | .91520 | .91560 | 667.75000 |
| 1.566 | 2.335 | -.50900 | 1570.10001 | .92870 | .91300 | .90650 | .90230 | .91020 | .91680 | .9270 | .91680 | 668.05000 |
| 1.566 | 4.117 | -.53149 | 1568.39999 | .92320 | .91440 | .90720 | .90540 | .91260 | .91920 | .92000 | .91920 | 667.75000 |
| 1.566 | 6.192 | -.53080 | 1570.10001 | .92470 | .91820 | .90900 | .90820 | .91280 | .91890 | .92000 | .91890 | 668.05000 |
| 1.566 | 8.266 | -.53130 | 1570.80000 | .92850 | .92300 | .91250 | .90870 | .91450 | .92080 | .92100 | .92080 | 668.35000 |
| 1.566 | 10.334 | -.53060 | 1573.00000 | .92750 | .92300 | .91260 | .90800 | .91320 | .92010 | .92140 | .92010 | 669.29000 |
| 1.566 | 12.382 | -.52880 | 1573.70000 | .92810 | .92170 | .91290 | .90250 | .91160 | .91940 | .92140 | .91940 | 669.55000 |
| 1.566 | 14.468 | -.53470 | 1573.00000 | .92500 | .92190 | .91350 | .90940 | .91470 | .91990 | .92000 | .91990 | 669.25000 |
| 1.566 | 16.625 | -.53340 | 1573.70000 | .92280 | .91940 | .91200 | .90940 | .91420 | .91890 | .92000 | .91890 | 669.55000 |
| 1.566 | 18.720 | -.53990 | 1574.39999 | .91990 | .91480 | .90560 | .90080 | .90760 | .91200 | .91470 | .91200 | 669.25000 |
| 1.566 | 20.757 | -.52790 | 1573.70000 | .91830 | .91460 | .90960 | .89550 | .90420 | .91200 | .91520 | .91200 | 669.55000 |
| 1.566 | 22.928 | -.51890 | 1573.00000 | .91130 | .90740 | .89520 | .89130 | .89910 | .90550 | .9230 | .90550 | 669.25000 |
| 1.566 | 25.945 | -.51760 | 1573.70000 | .90980 | .90580 | .89280 | .89020 | .89590 | .90320 | .92130 | .90320 | 669.55000 |
| 1.566 | GRADIENT | -.00107 | -.00253 | .00639 | -.00034 | .00066 | .00140 | .00120 | .00088 | -.00000 | -.00000 | -.00100 |

RUN NO. 308/ 0 RNAL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | O(PSF) |
|-------|----------|---------|------------|--------|--------|---------|--------|--------|--------|---------|---------|-----------|
| 1.750 | -.067 | -.36400 | 1667.10001 | .85770 | .84670 | .82470 | .82280 | .83920 | .85240 | .85740 | .85240 | 667.24000 |
| 1.750 | 1.917 | -.36270 | 1667.80000 | .85970 | .84570 | .82330 | .82460 | .84080 | .85430 | .85740 | .85430 | 667.53000 |
| 1.750 | 3.989 | -.36290 | 1657.10001 | .86070 | .84790 | .82340 | .82490 | .84290 | .85630 | .85770 | .85630 | 667.24000 |
| 1.750 | 6.060 | -.36260 | 1656.39999 | .86330 | .85220 | .83110 | .83160 | .84570 | .85740 | .85750 | .85740 | 666.96000 |
| 1.750 | 8.123 | -.36240 | 1657.10001 | .86570 | .85580 | .83760 | .83260 | .84620 | .85750 | .85750 | .85750 | 667.24000 |
| 1.750 | 10.188 | -.36110 | 1657.10001 | .86480 | .85768 | .84140 | .83540 | .84800 | .85930 | .85930 | .85930 | 667.24000 |
| 1.750 | 12.231 | -.36630 | 1656.39999 | .86680 | .85760 | .84470 | .83430 | .84780 | .85930 | .85930 | .85930 | 667.24000 |
| 1.750 | 14.313 | -.35940 | 1657.10001 | .86360 | .85720 | .84380 | .83890 | .84850 | .85820 | .85820 | .85820 | 666.96000 |
| 1.750 | 16.464 | -.35400 | 1656.39999 | .85930 | .85310 | .84380 | .83876 | .84780 | .85750 | .85750 | .85750 | 666.96000 |
| 1.750 | 18.557 | -.34800 | 1656.39999 | .85660 | .84900 | .84390 | .83660 | .84560 | .85430 | .85430 | .85430 | 666.96000 |
| 1.750 | 20.589 | -.34040 | 1657.10001 | .85350 | .84630 | .84310 | .83680 | .84470 | .85350 | .85350 | .85350 | 667.24000 |
| 1.750 | 22.749 | -.33370 | 1656.39999 | .84320 | .83570 | .83310 | .82880 | .83190 | .84280 | .84280 | .84280 | 667.24000 |
| 1.750 | 25.766 | -.33730 | 1656.39999 | .83870 | .83310 | .81940 | .81630 | .83040 | .84100 | .84100 | .84100 | 666.96000 |
| 1.750 | GRADIENT | -.00046 | -.08195 | .00073 | .00030 | -.00034 | .00133 | .00115 | .00096 | -.00017 | -.00017 | -.00080 |

(BET/05) (02 AUG. 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A161 ORBITER * RAKES

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6806 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 313/ 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PF5) |
|-------|--------|---------|------------|--------|--------|--------|--------|--------|--------|--------|------------|
| 1.996 | -.019 | -.87570 | 1842.39999 | .75958 | .73940 | .70730 | .70010 | .72650 | .74920 | .06640 | .660.69000 |
| 1.996 | 0.966 | -.87676 | 1841.70000 | .76240 | .74660 | .71290 | .70260 | .73030 | .75210 | .06650 | .650.44000 |
| 1.996 | 4.083 | -.87800 | 1842.39999 | .76560 | .75050 | .71820 | .70460 | .72980 | .75300 | .06720 | .660.69000 |
| 1.996 | 6.093 | -.87796 | 1842.39999 | .76580 | .75070 | .71820 | .70460 | .72980 | .75300 | .06690 | .660.69000 |
| 1.996 | 8.153 | -.87770 | 1842.39999 | .76520 | .74910 | .71750 | .70400 | .72920 | .75240 | .06320 | .660.69000 |
| 1.996 | 10.211 | -.87780 | 1843.10001 | .76580 | .75300 | .73070 | .71550 | .73990 | .75690 | .06290 | .660.69000 |
| 1.996 | 12.254 | -.87470 | 1842.39999 | .76460 | .75260 | .72800 | .71350 | .73990 | .75560 | .06150 | .660.69000 |
| 1.996 | 14.335 | -.87310 | 1842.39999 | .76450 | .75320 | .73330 | .71720 | .73996 | .75560 | .05910 | .660.69000 |
| 1.996 | 16.477 | -.87050 | 1843.10001 | .76190 | .75090 | .73590 | .71430 | .73540 | .75630 | .05900 | .660.69000 |
| 1.996 | 18.566 | -.86650 | 1842.39999 | .75980 | .74960 | .73160 | .71100 | .73250 | .74960 | .05850 | .660.69000 |
| 1.996 | 20.590 | -.86540 | 1842.39999 | .75140 | .73970 | .72130 | .70620 | .72820 | .74460 | .05510 | .660.69000 |
| 1.996 | 22.667 | -.86160 | 1842.39999 | .74600 | .73460 | .71600 | .70250 | .72340 | .73870 | .05220 | .660.69000 |
| 1.996 | 24.727 | -.85810 | 1841.70000 | .74110 | .72920 | .71040 | .69800 | .71890 | .73430 | .05090 | .660.69000 |
| 1.996 | 25.753 | -.85530 | 1843.10001 | .00175 | .00273 | .00490 | .00111 | .00076 | .00093 | .00022 | .660.69000 |

RUN NO. 318/ 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PF5) |
|-------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|------------|
| 2.250 | -.086 | -1.03120 | 2060.29999 | .65140 | .62770 | .58130 | .57230 | .61170 | .63870 | .03990 | .631.54000 |
| 2.250 | 1.899 | -1.03020 | 2060.29999 | .65470 | .63170 | .58740 | .57360 | .61330 | .64180 | .03910 | .631.54000 |
| 2.250 | 3.953 | -1.03160 | 2059.60001 | .65860 | .63590 | .59360 | .57570 | .61180 | .64090 | .04020 | .631.54000 |
| 2.250 | 6.005 | -1.03050 | 2060.29999 | .66000 | .63820 | .60040 | .58050 | .61530 | .64220 | .04020 | .631.54000 |
| 2.250 | 8.056 | -1.02910 | 2060.29999 | .66140 | .64110 | .60450 | .58560 | .62070 | .64460 | .03920 | .631.54000 |
| 2.250 | 10.108 | -1.02810 | 2059.60001 | .66240 | .64290 | .61050 | .59210 | .62360 | .64740 | .03770 | .631.54000 |
| 2.250 | 12.143 | -1.02740 | 2059.60001 | .66020 | .64480 | .61550 | .59410 | .62340 | .64530 | .03590 | .631.54000 |
| 2.250 | 14.218 | -1.02570 | 2060.29999 | .65900 | .64400 | .61670 | .59410 | .62500 | .64530 | .03580 | .631.54000 |
| 2.250 | 16.348 | -1.02420 | 2060.29999 | .65780 | .64340 | .61670 | .59360 | .62420 | .64290 | .03500 | .631.54000 |
| 2.250 | 18.426 | -1.02220 | 2059.60001 | .65380 | .63980 | .61790 | .59700 | .61940 | .64120 | .03380 | .631.54000 |
| 2.250 | 20.444 | -1.01700 | 2060.29999 | .65040 | .63610 | .60660 | .59190 | .61940 | .63760 | .03340 | .631.54000 |
| 2.250 | 22.512 | -1.01480 | 2059.60001 | .64480 | .63000 | .60660 | .58810 | .61390 | .63250 | .03210 | .631.54000 |
| 2.250 | 24.564 | -1.01070 | 2059.60001 | .63850 | .62310 | .60910 | .58290 | .60910 | .62960 | .03110 | .631.54000 |
| 2.250 | 25.584 | -1.00770 | 2058.89999 | .63470 | .62000 | .60980 | .58030 | .60580 | .62540 | .03100 | .631.54000 |
| | | -.00010 | -.17428 | .00134 | .00203 | .00304 | .00084 | .00002 | .00054 | .00008 | .631.54000 |

(BETROSY 1702 AUG 76)

TABLATED DATA - 0A161 (ARC. 11-97-87-09A)
ARC 11-97-87-09A 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 50. FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AIRLON = .000 BOFLAP = .7170

RUN NO. 443/ 0 RNL = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | GRADIENT |
|-------|----------|---------|---------|--------|--------|--------|--------|--------|--------|----------|
| 2.499 | .114 | .04560 | .55080 | .52470 | .47420 | .46800 | .51330 | .54390 | .02490 | 1.01957 |
| 2.499 | 2.147 | .04528 | .53000 | .52870 | .47820 | .47150 | .51560 | .54580 | .02430 | 1.01800 |
| 2.499 | 4.183 | .04450 | .50001 | .53230 | .48660 | .47420 | .51890 | .54890 | .02320 | 1.01600 |
| 2.499 | 6.218 | .04350 | .30000 | .53410 | .49270 | .47820 | .52090 | .55110 | .02250 | 1.01400 |
| 2.499 | 8.256 | .04270 | .30000 | .53710 | .49670 | .48460 | .52480 | .55260 | .02170 | 1.01200 |
| 2.499 | 10.293 | .04160 | .60001 | .54030 | .50170 | .48990 | .52710 | .55420 | .02090 | 1.01000 |
| 2.499 | 12.343 | .03960 | .30000 | .54160 | .50910 | .49580 | .53080 | .55540 | .02020 | 1.00800 |
| 2.499 | 14.376 | .03800 | .60001 | .54120 | .51180 | .49950 | .53240 | .55440 | .01950 | 1.00600 |
| 2.499 | 16.410 | .03670 | .30000 | .53900 | .51260 | .50130 | .53180 | .55170 | .01880 | 1.00400 |
| 2.499 | 18.456 | .03420 | .60001 | .53710 | .51340 | .50040 | .53100 | .54800 | .01810 | 1.00200 |
| 2.499 | 20.499 | .03250 | .30000 | .53310 | .51020 | .50450 | .52750 | .54420 | .01740 | 1.00000 |
| 2.499 | 22.542 | .03080 | .60001 | .52890 | .50450 | .49840 | .52390 | .54000 | .01670 | 0.99800 |
| 2.499 | 24.603 | .02870 | .30000 | .52050 | .49910 | .49310 | .51840 | .53640 | .01600 | 0.99600 |
| 2.499 | 26.623 | .02780 | .60001 | .51650 | .49550 | .49050 | .51460 | .53340 | .01530 | 0.99400 |
| 2.499 | GRADIENT | -.00027 | -.17208 | .00187 | .00280 | .00152 | .00888 | .00123 | .00042 | 0.99200 |

RUN NO. 438/ 8 RNL = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | GRADIENT |
|-------|----------|---------|-------------|--------|--------|--------|--------|--------|--------|----------|
| 3.040 | .060 | .14640 | .36970 | .34160 | .28920 | .28500 | .33100 | .36200 | .01020 | 0.99500 |
| 3.040 | 2.085 | .14750 | .2017.80000 | .34550 | .29310 | .28760 | .33210 | .36470 | .01070 | 0.99300 |
| 3.040 | 4.141 | .14700 | .2017.10001 | .34970 | .29920 | .29060 | .33438 | .3640 | .00980 | 0.99100 |
| 3.040 | 6.195 | .14690 | .2017.80000 | .35120 | .30590 | .29530 | .33628 | .36300 | .00960 | 0.98900 |
| 3.040 | 8.158 | .14540 | .2017.10141 | .35370 | .31120 | .30230 | .34190 | .36340 | .00930 | 0.98700 |
| 3.040 | 10.203 | .14130 | .2017.80000 | .35590 | .31690 | .30630 | .34400 | .37040 | .00860 | 0.98500 |
| 3.040 | 12.242 | .14070 | .2017.10001 | .35830 | .32380 | .31100 | .34730 | .37100 | .00800 | 0.98300 |
| 3.040 | 14.280 | .13990 | .2017.80000 | .35870 | .32588 | .31390 | .34850 | .37060 | .00750 | 0.98100 |
| 3.040 | 16.303 | .13840 | .2017.10001 | .35430 | .32780 | .31690 | .34840 | .37020 | .00680 | 0.97900 |
| 3.040 | 18.344 | .13460 | .2017.80000 | .35770 | .32720 | .31750 | .34710 | .36950 | .00650 | 0.97700 |
| 3.040 | 20.382 | .13300 | .2017.80000 | .34650 | .32350 | .31650 | .34390 | .36950 | .00650 | 0.97500 |
| 3.040 | 22.424 | .13250 | .2017.10001 | .34160 | .31870 | .31350 | .34000 | .36570 | .00650 | 0.97300 |
| 3.040 | 24.499 | .13190 | .2017.80000 | .33580 | .31440 | .31050 | .33580 | .36570 | .00650 | 0.97100 |
| 3.040 | 26.481 | .13080 | .2017.80000 | .33190 | .31070 | .30770 | .33300 | .36570 | .00610 | 0.96900 |
| 3.040 | GRADIENT | -.00034 | -.17195 | .00199 | .00245 | .00137 | .00881 | .00108 | .00010 | 0.96700 |

(BETROS) 02 AUG 76

TABULATED DATA - OAI61 (ARC 11-97-87-094)

ARC 11-97-87-894 OAI61 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 ATLRON = .000 BOFLAP = -7.470

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 4337 0 RVAL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O (PST) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 3.499 | 1.73 | .10250 | 2639.50000 | .23440 | .18770 | .18770 | .18270 | .22180 | .24980 | .00540 | 297.05000 |
| 3.499 | 1.854 | .10120 | 2640.20001 | .23800 | .19100 | .19100 | .18440 | .22590 | .25230 | .00560 | 297.14000 |
| 3.499 | 3.896 | .09880 | 2640.89999 | .24110 | .19690 | .19690 | .18760 | .22960 | .25330 | .00540 | 297.22000 |
| 3.499 | 5.895 | .09930 | 2644.50000 | .24230 | .20280 | .20280 | .19050 | .22760 | .25470 | .00510 | 297.52000 |
| 3.499 | 7.954 | .09710 | 2646.60001 | .24450 | .20690 | .20690 | .19710 | .23180 | .25650 | .00520 | 297.66000 |
| 3.499 | 9.951 | .09530 | 2646.60001 | .24530 | .21120 | .21120 | .20130 | .23450 | .25760 | .00500 | 297.86000 |
| 3.499 | 11.972 | .09570 | 2647.29999 | .24740 | .21700 | .21700 | .20350 | .23750 | .25850 | .00480 | 297.94000 |
| 3.499 | 13.998 | .09510 | 2652.29999 | .24600 | .21870 | .21870 | .20800 | .23800 | .25840 | .00460 | 298.00000 |
| 3.499 | 16.028 | .09320 | 2653.00000 | .24380 | .22090 | .22090 | .21090 | .23880 | .25860 | .00440 | 298.08000 |
| 3.499 | 18.059 | .09060 | 2650.10001 | .24110 | .22170 | .22170 | .21130 | .23750 | .25890 | .00430 | 298.15000 |
| 3.499 | 20.101 | .08710 | 2651.60001 | .23760 | .21730 | .21730 | .21070 | .23520 | .25900 | .00440 | 298.17000 |
| 3.499 | 22.129 | .08580 | 2652.29999 | .23330 | .21360 | .21360 | .20920 | .23210 | .25930 | .00440 | 298.15000 |
| 3.499 | 24.165 | .08500 | 2651.60001 | .22900 | .20900 | .20900 | .20620 | .22860 | .25920 | .00460 | 298.12000 |
| 3.499 | 25.183 | .08390 | 2651.60001 | .22590 | .20730 | .20730 | .20420 | .22640 | .25900 | .00470 | 298.12000 |
| | GRADIENT | -.00086 | .34406 | .00165 | .00202 | .00202 | .00120 | .00091 | .00086 | .00000 | .03932 |

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(BETR06) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09H)
ARC 11-97-87-09H 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SO.FT. XMRP = 1078.6800 IN. XQ
LREF = 974.8000 IN. YMRP = .0000 IN. YQ
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 22/ 0 RVAL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT |
|------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|
| .598 | .095 | 2.26100 | 2631.00000 | 1.00040 | 1.00050 | 1.00020 | 1.00040 | 1.00050 | 1.00040 | 1.00050 |
| .597 | 2.139 | 2.28520 | 2631.00000 | 1.00050 | 1.00050 | 1.00010 | 1.00040 | 1.00070 | 1.00050 | 1.00070 |
| .597 | 4.199 | 2.30270 | 2631.79999 | 1.00050 | 1.00060 | 1.00040 | 1.00050 | 1.00050 | 1.00050 | 1.00050 |
| .597 | 6.264 | 2.30960 | 2631.79999 | 1.00040 | 1.00020 | 1.00040 | 1.00020 | 1.00050 | 1.00050 | 1.00050 |
| .597 | 8.380 | 2.31120 | 2631.79999 | 1.00030 | 1.00030 | 1.00030 | 1.00030 | 1.00030 | 1.00030 | 1.00030 |
| .597 | 10.485 | 2.32480 | 2631.79999 | 1.00060 | 1.00030 | 1.00040 | 1.00030 | 1.00070 | 1.00050 | 1.00050 |
| .597 | 12.630 | 2.32620 | 2631.79999 | 1.00050 | 1.00070 | 1.00070 | 1.00030 | 1.00020 | 1.00040 | 1.00040 |
| .598 | 14.765 | 2.29510 | 2631.79999 | 1.00000 | 1.00010 | 1.00000 | 1.00000 | 1.00030 | 1.00040 | 1.00040 |
| .597 | 16.902 | 2.29940 | 2631.79999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .597 | 19.016 | 2.28200 | 2631.79999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .597 | 21.104 | 2.28070 | 2631.79999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .595 | 23.191 | 2.28640 | 2632.90000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .597 | 25.244 | 2.31500 | 2632.90000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| | GRADIENT | .01016 | .19575 | .00002 | .00002 | .00005 | .00010 | .00010 | .00005 | .00005 |

RUN NO. 19/ 0

RVAL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT |
|------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|
| .898 | .066 | 2.27870 | 2119.39999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .901 | 2.164 | 2.29530 | 2119.39999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .901 | 4.269 | 2.30480 | 2117.60001 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .901 | 6.380 | 2.32390 | 2116.20001 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .901 | 8.499 | 2.31770 | 2114.70001 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .899 | 10.680 | 2.32990 | 2116.89999 | 1.00020 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .901 | 12.782 | 2.31150 | 2116.20001 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .901 | 14.936 | 2.32870 | 2114.70001 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .901 | 17.120 | 2.33030 | 2119.39999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .900 | 19.272 | 2.32650 | 2116.89999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .897 | 21.373 | 2.31540 | 2115.38999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .895 | 25.439 | 2.30540 | 2114.70001 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| .895 | 25.493 | 2.32860 | 2116.89999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| | GRADIENT | .01894 | .52395 | .00012 | .00007 | .00021 | .00007 | .00017 | .00012 | .00012 |

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TABULATED DATA - OA161 (ARC 11-97-87-094)
 ARC 11-97-87-094 OA161 ORBI TER RAKES.

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0800 IN. Z0
 SCALE = .0300

BETA = 2.000
 AILRON = 7.170

PARAMETRIC DATA

RUN NO. 15/ 0 RVL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT |
|-------|----------|--------|-----------|--------|--------|--------|--------|--------|--------|--------|
| 1.201 | .046 | 2.279 | 2010.8000 | .99360 | .99300 | .99280 | .99300 | .99330 | .99340 | .99300 |
| 1.199 | 2.157 | 2.278 | 2009.6000 | .99380 | .99320 | .99278 | .99290 | .99300 | .99330 | .99290 |
| 1.200 | 4.278 | 2.318 | 2009.3999 | .99390 | .99370 | .99350 | .99360 | .99400 | .99430 | .99400 |
| 1.197 | 6.414 | 2.320 | 2010.1000 | .99380 | .99360 | .99350 | .99330 | .99340 | .99430 | .99400 |
| 1.198 | 8.582 | 2.305 | 2010.1000 | .99390 | .99360 | .99280 | .99320 | .99440 | .99460 | .99370 |
| 1.196 | 10.749 | 2.307 | 2009.3999 | .99400 | .99350 | .99350 | .99350 | .99440 | .99440 | .99370 |
| 1.195 | 12.925 | 2.290 | 2010.1000 | .99400 | .99350 | .99350 | .99350 | .99440 | .99440 | .99370 |
| 1.195 | 15.098 | 2.327 | 2008.5000 | .99340 | .99350 | .99350 | .99350 | .99440 | .99440 | .99370 |
| 1.198 | 17.314 | 2.335 | 2010.8000 | .99146 | .99220 | .99210 | .99250 | .99320 | .99330 | .99270 |
| 1.191 | 19.475 | 2.324 | 2008.5000 | .99110 | .99170 | .99120 | .99200 | .99140 | .99190 | .99140 |
| 1.191 | 21.599 | 2.316 | 2011.5000 | .98860 | .98970 | .98860 | .98970 | .99080 | .99120 | .99080 |
| 1.188 | 23.702 | 2.328 | 2010.8000 | .98450 | .98690 | .98480 | .98670 | .98900 | .98760 | .98900 |
| 1.188 | 25.791 | 2.348 | 2010.8000 | .97800 | .98180 | .97780 | .98500 | .98790 | .98760 | .98790 |
| | GRADIENT | .00936 | -1.6507 | .00007 | .00077 | .00017 | .00014 | .00017 | .00031 | .00031 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT |
|-------|----------|--------|-----------|--------|--------|--------|--------|--------|--------|--------|
| 1.399 | .040 | 2.282 | 2046.8000 | .99820 | .99330 | .99380 | .99480 | .99860 | .99860 | .99860 |
| 1.400 | 2.117 | 2.264 | 2046.8000 | .96030 | .95320 | .95740 | .95740 | .99950 | .99950 | .99950 |
| 1.397 | 4.235 | 2.315 | 2045.8000 | .96100 | .95660 | .95790 | .96030 | .96050 | .96500 | .96500 |
| 1.395 | 6.368 | 2.362 | 2047.5000 | .96200 | .95940 | .95610 | .95910 | .96150 | .96520 | .96520 |
| 1.396 | 8.524 | 2.325 | 2047.5000 | .96160 | .95760 | .95690 | .96060 | .96150 | .96520 | .96520 |
| 1.394 | 10.690 | 2.327 | 2047.5000 | .96230 | .95790 | .96040 | .96070 | .96200 | .96520 | .96520 |
| 1.396 | 12.845 | 2.311 | 2047.5000 | .96100 | .95730 | .95950 | .96110 | .96200 | .96520 | .96520 |
| 1.397 | 15.003 | 2.335 | 2047.5000 | .95940 | .95330 | .95720 | .96170 | .96210 | .96520 | .96520 |
| 1.397 | 17.226 | 2.340 | 2045.8000 | .95690 | .95330 | .95700 | .96130 | .96180 | .96520 | .96520 |
| 1.395 | 19.385 | 2.325 | 2047.5000 | .95370 | .94970 | .94840 | .95750 | .95890 | .96350 | .96350 |
| 1.395 | 21.523 | 2.350 | 2047.5000 | .94780 | .94490 | .94750 | .95213 | .95780 | .96350 | .96350 |
| 1.388 | 23.637 | 2.318 | 2046.8000 | .94190 | .93970 | .93670 | .94773 | .95440 | .95790 | .95790 |
| 1.388 | 25.745 | 2.360 | 2049.7000 | .00067 | .00079 | .00087 | .00131 | .00045 | .00098 | .00098 |
| | GRADIENT | .00869 | .00002 | .00067 | .00079 | .00087 | .00131 | .00045 | .00098 | .00098 |

02 AUG 76

TABULATED DATA - 0A163 (ARC 11-97-87-054) ORBITER RAKES

REFERENCE DATA
 SREF = 2690.0000 SQ.FT.
 LREF = 474.8000 IN.
 BREF = 936.6800 IN.
 SCALE = .0300

GRADIENT INTERVAL = -5.00/ 5.00
 RUN NO. 302/ 0
 RN/L = 3.03
 MAGH = 1.556
 ALPHA = 0.40
 BETA = 1.52250
 XMRP = 1076.6800 IN. X0
 YMRP = 0.0000 IN. Y0
 ZMRP = 375.0000 IN. Z0

GRADIENT INTERVAL = -5.00/ 5.00
 RUN NO. 309/ 0
 RN/L = 3.03
 MAGH = 1.556
 ALPHA = 0.74
 BETA = 1.70250

PARAMETRIC DATA
 ELEVON = 2.000
 BDFLAP = 1.700

| MAGH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT |
|-------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|
| 1.556 | 0.40 | 1.52250 | 1558.80000 | 91310 | 90840 | 905910 | 91190 | 919810 | 82710 | 11890 |
| 1.556 | 0.4035 | 1.52310 | 1559.89999 | 91530 | 90960 | 906986 | 91300 | 920810 | 82750 | 14990 |
| 1.556 | 4.1178 | 1.52170 | 1558.39999 | 91630 | 90970 | 90740 | 91530 | 92300 | 82940 | 14990 |
| 1.556 | 6.189 | 1.52030 | 1558.39999 | 91970 | 91270 | 90930 | 91670 | 93120 | 83260 | 15090 |
| 1.556 | 8.263 | 1.52350 | 1558.80000 | 92200 | 91700 | 90980 | 91830 | 93501 | 83440 | 14820 |
| 1.556 | 10.330 | 1.52466 | 1563.89999 | 92670 | 91900 | 90980 | 91939 | 93701 | 8370 | 1450 |
| 1.566 | 12.377 | 1.52680 | 1563.10000 | 92150 | 91770 | 90870 | 91970 | 93540 | 8370 | 1450 |
| 1.556 | 14.454 | 1.53060 | 1562.39999 | 91870 | 91470 | 90870 | 91863 | 93340 | 8370 | 13930 |
| 1.566 | 16.614 | 1.53720 | 1553.10000 | 91040 | 90890 | 90820 | 91820 | 92270 | 8330 | 13550 |
| 1.556 | 18.708 | 1.53470 | 1559.89999 | 90450 | 90150 | 89730 | 91510 | 91940 | 82960 | 12710 |
| 1.556 | 20.744 | 1.53190 | 1597.39999 | 89730 | 89800 | 89030 | 90200 | 91220 | 82960 | 12120 |
| 1.566 | 24.901 | 1.53060 | 1568.80000 | 89310 | 89090 | 87930 | 90530 | 91990 | 82960 | 10925 |
| 1.566 | 25.930 | -1.00020 | 88167 | 00030 | 00008 | 00057 | 00084 | 00039 | 00065 | 00065 |

| MAGH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|
| 1.750 | 0.74 | 1.70250 | 1657.10001 | 84320 | 83140 | 81230 | 83620 | 85410 | 85390 | 110600 |
| 1.750 | 1.919 | 1.70330 | 1655.70000 | 84590 | 83570 | 81620 | 83820 | 85350 | 85390 | 11530 |
| 1.750 | 3.890 | 1.7060 | 1655.70000 | 84720 | 83710 | 81830 | 84049 | 85350 | 85390 | 110570 |
| 1.750 | 6.125 | 1.70320 | 1652.70000 | 85640 | 84180 | 82250 | 84273 | 85710 | 85710 | 110350 |
| 1.750 | 10.189 | 1.70260 | 1656.39999 | 84160 | 84180 | 82540 | 84281 | 85730 | 85710 | 110180 |
| 1.750 | 12.272 | 1.70770 | 1656.39999 | 84940 | 84710 | 82760 | 84722 | 85730 | 85710 | 10970 |
| 1.750 | 14.316 | 1.7040 | 1656.39999 | 84470 | 84140 | 82970 | 85140 | 85730 | 85710 | 10970 |
| 1.750 | 16.459 | 1.74370 | 1655.70000 | 84440 | 83580 | 82150 | 85587 | 85730 | 85710 | 109510 |
| 1.750 | 18.550 | 1.71820 | 1656.39999 | 84930 | 83050 | 82970 | 85176 | 85730 | 85710 | 109510 |
| 1.561 | 20.579 | 1.72120 | 1656.39999 | 83330 | 82670 | 80940 | 84721 | 85660 | 85640 | 109700 |
| 1.750 | 24.728 | 1.72350 | 1655.70000 | 82440 | 81630 | 80000 | 83771 | 85640 | 85640 | 10940 |
| 1.750 | 25.752 | 1.73100 | 1655.70000 | 82170 | 81510 | 79760 | 83931 | 84900 | 84900 | 100007 |
| 1.750 | GRADIENT | 0.00049 | -34220 | 00098 | 00140 | 00147 | 00113 | 00118 | 00101 | 00007 |

(BE7R06.) 02 AUG 76

TABULATED DATA - OAR61 + ARC 11-97-87-09*)
 ARC 11-97-87-09* OAI61 ORBITER * RAKES

REFERENCE DATA

SREF = 2590.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.8800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0500

BETA =
 ATLRON =

2.000 ELEVON = .000
 .000 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 3124 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF3 |
|-------|--------|---------|------------|---------|---------|---------|--------|---------|---------|---------|-----------|
| 1.996 | -0.074 | 1.18280 | 1843.10001 | 73580 | -71400 | 68420 | 71590 | 74410 | 76570 | 85550 | 660.64000 |
| 1.996 | 1.975 | 1.18340 | 1843.10001 | 73710 | -71850 | 68670 | 71980 | 74700 | 76800 | 85620 | 660.64000 |
| 1.996 | 4.041 | 1.18150 | 1842.39999 | 73960 | -72170 | 69210 | 72110 | 74870 | 76860 | 85610 | 660.64000 |
| 1.996 | 6.099 | 1.18080 | 1842.70000 | 74210 | -72480 | 69750 | 72600 | 75100 | 77090 | 85590 | 660.64000 |
| 1.996 | 8.167 | 1.18130 | 1842.39999 | 74430 | -72950 | 70160 | 72740 | 75120 | 77050 | 85520 | 660.64000 |
| 1.996 | 10.215 | 1.18260 | 1843.10001 | 74580 | -73090 | 70880 | 72940 | 75269 | 76970 | 85530 | 660.64000 |
| 1.996 | 12.258 | 1.18390 | 1842.39999 | 74270 | -72960 | 70860 | 73470 | 75300 | 77130 | 85500 | 660.64000 |
| 1.996 | 14.341 | 1.18510 | 1842.39999 | 74170 | -72810 | 70930 | 73190 | 75390 | 77100 | 85530 | 660.64000 |
| 1.996 | 16.477 | 1.18870 | 1841.70000 | 73930 | -72760 | 70980 | 73640 | 75408 | 76990 | 85590 | 660.64000 |
| 1.996 | 18.564 | 1.19060 | 1842.39999 | 73640 | -72300 | 69870 | 73740 | 75408 | 76990 | 85590 | 660.64000 |
| 1.996 | 20.582 | 1.19600 | 1843.10001 | 73230 | -71960 | 68950 | 73290 | 75020 | 76569 | 85560 | 660.64000 |
| 1.996 | 22.659 | 1.19760 | 1842.39999 | 72670 | -71560 | 68960 | 72670 | 74850 | 76030 | 85530 | 660.64000 |
| 1.996 | 24.721 | 1.20490 | 1841.70000 | 71780 | -70580 | 68170 | 72530 | 74590 | 75850 | 85280 | 660.64000 |
| 1.996 | 25.743 | 1.20840 | 1842.39999 | 71260 | -70130 | 67790 | 72480 | 74390 | 75850 | 85280 | 660.64000 |
| | | -0.0032 | -1.17373 | 0.00094 | 0.00190 | 0.00195 | 0.0128 | 0.08113 | 0.00096 | 0.00115 | 1.06805 |

RUN NO. 3197 0 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF3 |
|-------|--------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.250 | -0.074 | 1.03080 | 2059.60001 | 62960 | 60420 | 56050 | 58900 | 62890 | 65990 | 84160 | 631.33000 |
| 2.250 | 1.899 | 1.03000 | 2059.60001 | 63200 | 60660 | 56850 | 59280 | 63290 | 66930 | 84010 | 631.33000 |
| 2.250 | 3.354 | 1.02950 | 2059.60001 | 63390 | 61180 | 57050 | 59610 | 63330 | 68130 | 83970 | 631.33000 |
| 2.250 | 6.004 | 1.02980 | 2059.60004 | 63730 | 61650 | 57980 | 60180 | 63750 | 69130 | 83940 | 631.33000 |
| 2.250 | 8.059 | 1.02980 | 2059.60001 | 63920 | 61930 | 58400 | 60640 | 64050 | 69500 | 83900 | 631.33000 |
| 2.250 | 10.108 | 1.03070 | 2059.60001 | 64060 | 62240 | 59210 | 61050 | 64490 | 69500 | 83850 | 631.33000 |
| 2.250 | 12.142 | 1.03180 | 2059.60001 | 64150 | 62440 | 59560 | 61490 | 64990 | 69500 | 83850 | 631.33000 |
| 2.250 | 14.211 | 1.03070 | 2059.60001 | 64040 | 62620 | 59950 | 61890 | 65420 | 69500 | 83850 | 631.33000 |
| 2.250 | 16.343 | 1.03560 | 2059.60001 | 63920 | 62480 | 60020 | 61690 | 65820 | 69500 | 83850 | 631.33000 |
| 2.250 | 18.418 | 1.04090 | 2059.60001 | 63730 | 62110 | 59370 | 61840 | 66320 | 69500 | 83850 | 631.33000 |
| 2.250 | 20.432 | 1.04280 | 2059.60001 | 63150 | 61620 | 58620 | 61640 | 63590 | 69500 | 83850 | 631.33000 |
| 2.250 | 22.497 | 1.04720 | 2059.60001 | 62420 | 60910 | 57960 | 61020 | 63350 | 68220 | 83850 | 631.33000 |
| 2.250 | 24.553 | 1.05260 | 2059.60001 | 61900 | 60280 | 57330 | 60720 | 63350 | 68220 | 83850 | 631.33000 |
| 2.250 | 26.573 | 1.05690 | 2059.60001 | 61160 | 59630 | 56700 | 60500 | 63140 | 68130 | 83850 | 631.33000 |
| | | -0.0032 | -0.0002 | 0.01107 | 0.01180 | 0.01248 | 0.08176 | 0.08108 | 0.00144 | 0.00122 | 1.06805 |

(EE7506) (02AUG75)

PARAMETRIC DATA

BETA = 2.000 ELEVON = 0.000
A/LRON = 0.000 EDFLAP = 0.000

TABULATED DATA - 0A16L (ARC 11-97-87-094)
ARC 11-97-87-094 0A16L ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8008 IN. YMRP = .0000 IN. Y0
BREF = 936.6908 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0500

RUN NO. 4444 0. RN/L = 2.01 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | PT9/PT | PT10/PT |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 2.499 | .111 | 2.10290 | 1489.50000 | .52458 | .49730 | .45066 | .48950 | .53750 | .56760 | .55261 | .51561 | .48520 | .45500 |
| 2.499 | 2.167 | 2.09890 | 1490.25000 | .52650 | .50060 | .45440 | .49400 | .54000 | .56860 | .55361 | .51661 | .48620 | .45600 |
| 2.499 | 4.172 | 2.08090 | 1490.20000 | .52950 | .50820 | .46080 | .49600 | .54180 | .57270 | .55771 | .52071 | .49030 | .46000 |
| 2.498 | 6.217 | 2.07310 | 1490.20000 | .53170 | .51830 | .46660 | .50110 | .54900 | .57820 | .56321 | .52621 | .49580 | .46500 |
| 2.498 | 8.250 | 2.06700 | 1490.20000 | .53340 | .52300 | .47090 | .50850 | .55900 | .58730 | .57231 | .53531 | .50490 | .47400 |
| 2.498 | 10.294 | 2.06310 | 1490.20000 | .53590 | .52700 | .47560 | .51850 | .57150 | .59980 | .58481 | .54781 | .51740 | .48600 |
| 2.498 | 12.348 | 2.06000 | 1490.20000 | .53900 | .53200 | .48070 | .52700 | .58000 | .60830 | .59331 | .55631 | .52590 | .49400 |
| 2.499 | 14.380 | 2.05780 | 1490.20000 | .54300 | .53700 | .48630 | .53200 | .58500 | .61330 | .59831 | .56131 | .53090 | .50000 |
| 2.499 | 16.426 | 2.05740 | 1490.20000 | .54700 | .54100 | .49200 | .53800 | .59000 | .61800 | .60301 | .56601 | .53560 | .50400 |
| 2.499 | 18.467 | 2.05870 | 1490.20000 | .55190 | .54600 | .49800 | .54400 | .59500 | .62300 | .60801 | .57101 | .54060 | .50900 |
| 2.499 | 20.512 | 2.06250 | 1490.20000 | .55700 | .55100 | .50400 | .55000 | .60000 | .62800 | .61301 | .57601 | .54560 | .51300 |
| 2.499 | 22.567 | 2.06640 | 1490.20000 | .56200 | .55600 | .51000 | .55600 | .60500 | .63300 | .62001 | .58301 | .55200 | .52000 |
| 2.499 | 24.602 | 2.07170 | 1490.20000 | .56700 | .56100 | .51600 | .56200 | .61000 | .63800 | .62701 | .59001 | .55900 | .52600 |
| 2.499 | 25.638 | 2.07530 | 1490.20000 | .57200 | .56600 | .52200 | .56800 | .61500 | .64300 | .63401 | .59701 | .56600 | .53300 |
| 2.499 | GRADIENT | -.00342 | .17310 | .00123 | .00219 | .00231 | .00160 | .00106 | .00123 | .00150 | .00150 | .00150 | .00150 |

RUN NO. 4371 0. RN/L = 1.97 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | PT9/PT | PT10/PT |
|-------|--------|---------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 3.040 | .075 | 2.23050 | 2018.50000 | .33920 | .31069 | .26510 | .30830 | .35740 | .39730 | .38231 | .34531 | .31490 | .28400 |
| 3.040 | 2.139 | 2.22000 | 2018.30000 | .34230 | .32400 | .26780 | .30950 | .35920 | .39910 | .38411 | .34711 | .31670 | .28580 |
| 3.040 | 4.158 | 2.21070 | 2018.50000 | .34540 | .32800 | .27300 | .31240 | .36200 | .40190 | .38691 | .34991 | .31950 | .28860 |
| 3.040 | 6.168 | 2.20230 | 2018.50000 | .34810 | .33100 | .27800 | .31780 | .36500 | .40490 | .38991 | .35291 | .32250 | .29160 |
| 3.040 | 8.195 | 2.19520 | 2018.50000 | .34980 | .33300 | .28100 | .32000 | .36800 | .40790 | .39291 | .35591 | .32550 | .29460 |
| 3.040 | 10.249 | 2.18950 | 2017.10000 | .35000 | .33400 | .28300 | .32000 | .37000 | .41000 | .39501 | .35801 | .32760 | .29760 |
| 3.040 | 12.295 | 2.18550 | 2016.39999 | .34790 | .33100 | .28100 | .31790 | .36790 | .40790 | .39291 | .35591 | .32550 | .29460 |
| 3.040 | 14.295 | 2.18550 | 2018.50000 | .34470 | .32880 | .27910 | .31400 | .36400 | .40500 | .39001 | .35301 | .32260 | .29160 |
| 3.040 | 16.331 | 2.18550 | 2017.10000 | .34120 | .32550 | .27870 | .31070 | .36100 | .40200 | .38701 | .35001 | .31950 | .28860 |
| 3.040 | 18.412 | 2.18690 | 2017.80000 | .33730 | .32190 | .27870 | .30700 | .35700 | .39900 | .38401 | .34701 | .31660 | .28570 |
| 3.040 | 20.447 | 2.19380 | 2017.80000 | .33090 | .31640 | .27870 | .30090 | .35000 | .39200 | .37701 | .34001 | .30960 | .27870 |
| 3.040 | 22.447 | 2.20000 | 2017.80000 | .32400 | .30940 | .27870 | .29400 | .34300 | .38500 | .37001 | .33301 | .30260 | .27170 |
| 3.040 | 24.490 | 2.20320 | 2017.80000 | .32020 | .30560 | .27870 | .29020 | .33920 | .38120 | .36621 | .32921 | .29820 | .26730 |
| 3.040 | 25.505 | 2.20320 | 2017.80000 | .00152 | .00248 | .00260 | .00170 | .00116 | .00152 | .00179 | .00179 | .00179 | .00179 |

(BETROS) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-084 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 956.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 434/ 0. RVAL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QNP5F1 |
|-------|--------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 3.499 | -1.79 | 2.25330 | 2669.20001 | .23400 | .20763 | .16980 | .20150 | .24410 | .27090 | .00550 | 300.41000 |
| 3.499 | 1.866 | 2.24100 | 2669.20001 | .23740 | .21243 | .17220 | .20320 | .24520 | .27580 | .00550 | 300.41000 |
| 3.499 | 3.886 | 2.23470 | 2669.20000 | .23950 | .21721 | .17610 | .20570 | .24700 | .27400 | .00520 | 300.33000 |
| 3.499 | 5.894 | 2.22000 | 2669.20001 | .24040 | .21923 | .18100 | .20650 | .24980 | .27380 | .00510 | 300.41000 |
| 3.499 | 7.923 | 2.21990 | 2669.20001 | .24250 | .22263 | .18980 | .21300 | .25260 | .27590 | .00510 | 300.41000 |
| 3.499 | 9.943 | 2.21410 | 2667.79999 | .24320 | .22380 | .19100 | .21350 | .25500 | .27820 | .00490 | 300.25000 |
| 3.499 | 11.982 | 2.20910 | 2669.89999 | .24290 | .22610 | .19610 | .21370 | .25610 | .27910 | .00460 | 300.49000 |
| 3.499 | 14.015 | 2.20560 | 2668.50000 | .24110 | .22630 | .19800 | .21370 | .25630 | .27900 | .00440 | 300.41000 |
| 3.499 | 16.030 | 2.20800 | 2669.20001 | .23900 | .22460 | .19880 | .21260 | .25530 | .27710 | .00450 | 300.33000 |
| 3.499 | 18.065 | 2.20830 | 2668.50000 | .23530 | .22140 | .19980 | .21100 | .25370 | .27520 | .00450 | 300.49000 |
| 3.499 | 20.103 | 2.20850 | 2669.89999 | .23100 | .21789 | .19920 | .20880 | .25110 | .27320 | .00450 | 300.25000 |
| 3.499 | 22.128 | 2.21520 | 2667.79999 | .22660 | .21370 | .19770 | .20720 | .24730 | .26920 | .00420 | 300.49000 |
| 3.499 | 24.173 | 2.22330 | 2669.89999 | .22170 | .20830 | .19770 | .20520 | .24500 | .26770 | .00450 | 300.25000 |
| 3.499 | 25.184 | 2.23390 | 2667.79999 | .21890 | .20550 | .18850 | .20130 | .24600 | .26007 | .00007 | -0.1964 |
| 3.499 | | .00458 | .17186 | .00135 | .00236 | .00180 | .00103 | .00071 | .00075 | | |

TABULATED DATA - OAI61 (ARC 11-97-87-094)
ARC 11-97-87-094 OAI61 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 14/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.08

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|---------|------------|--------|--------|--------|---------|--------|--------|--------|-----------|
| 1.199 | .084 | 5.38940 | 2010.80000 | .99190 | .99270 | .99190 | .98280 | .98320 | .98350 | .98130 | 835.49000 |
| 1.201 | 2.182 | 5.42360 | 2010.80000 | .99280 | .99280 | .99280 | .98290 | .98340 | .98370 | .98600 | 836.27000 |
| 1.199 | 4.304 | 5.41920 | 2010.10001 | .99230 | .99280 | .99230 | .98280 | .98360 | .98370 | .98910 | 835.12000 |
| 1.196 | 6.446 | 5.41170 | 2010.80000 | .99360 | .99370 | .99360 | .98350 | .98430 | .98440 | .98060 | 834.70000 |
| 1.197 | 8.606 | 5.41240 | 2010.10001 | .99340 | .99340 | .99340 | .98350 | .98410 | .98440 | .98200 | 834.53000 |
| 1.197 | 10.780 | 5.42910 | 2011.50000 | .99240 | .99300 | .99240 | .98350 | .98400 | .98450 | .98170 | 835.28000 |
| 1.196 | 12.927 | 5.39680 | 2010.80000 | .99230 | .99260 | .99230 | .98350 | .98370 | .98430 | .98260 | 834.70000 |
| 1.197 | 15.088 | 5.41750 | 2011.50000 | .99050 | .99050 | .99170 | .98260 | .98310 | .98360 | .98220 | 835.08000 |
| 1.193 | 17.249 | 5.45190 | 2009.39999 | .98980 | .98980 | .99110 | .98270 | .98360 | .98400 | .98340 | 832.95000 |
| 1.191 | 19.420 | 5.46300 | 2010.80000 | .98920 | .98920 | .98990 | .98230 | .98370 | .98400 | .98250 | 832.90000 |
| 1.193 | 21.531 | 5.46530 | 2010.10001 | .98790 | .98810 | .98880 | .98160 | .98340 | .98340 | .98260 | 833.35000 |
| 1.192 | 23.676 | 5.47900 | 2010.10001 | .98750 | .98820 | .98800 | .98100 | .98200 | .98210 | .98160 | 833.13000 |
| 1.185 | 25.764 | 5.49450 | 2011.50000 | .97440 | .97440 | .97440 | .98660 | .98980 | .98980 | .98990 | 831.84000 |
| | GRADIENT | .00823 | -.16622 | .00002 | .00002 | .00009 | -.00000 | .00009 | .00005 | .00185 | -.08658 |

RUN NO. 11/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| 1.403 | .065 | 5.39060 | 2047.50000 | .99240 | .94700 | .94940 | .96170 | .96540 | .96960 | .97770 | 882.82000 |
| 1.402 | 2.145 | 5.46540 | 2048.00000 | .95280 | .94800 | .95090 | .96210 | .96450 | .96860 | .97240 | 883.42000 |
| 1.399 | 4.262 | 5.43010 | 2047.50000 | .95040 | .95040 | .95320 | .96510 | .96790 | .97150 | .97200 | 882.75000 |
| 1.398 | 6.395 | 5.41690 | 2047.50000 | .95580 | .95180 | .95420 | .96570 | .96740 | .97090 | .97190 | 882.73000 |
| 1.395 | 8.544 | 5.42770 | 2047.50000 | .95510 | .95080 | .95090 | .96630 | .96830 | .97150 | .97250 | 882.67000 |
| 1.395 | 10.710 | 5.40550 | 2048.29999 | .95470 | .95070 | .95140 | .96730 | .96930 | .97180 | .97200 | 882.95000 |
| 1.396 | 12.850 | 5.39660 | 2048.29999 | .95320 | .94620 | .95180 | .96650 | .96880 | .97190 | .97220 | 883.07000 |
| 1.399 | 17.162 | 5.42630 | 2048.29999 | .94980 | .94660 | .94500 | .96770 | .96940 | .97200 | .97190 | 882.92000 |
| 1.393 | 19.335 | 5.43330 | 2048.29999 | .94740 | .94390 | .94500 | .96710 | .96840 | .97140 | .97230 | 882.83000 |
| 1.398 | 21.481 | 5.48180 | 2049.70001 | .93390 | .93530 | .93390 | .96320 | .96610 | .96940 | .97040 | 883.61000 |
| 1.396 | 23.600 | 5.48690 | 2048.29999 | .93420 | .93420 | .92720 | .96150 | .96480 | .96790 | .96870 | 882.78000 |
| 1.397 | 25.705 | 5.48450 | 2049.70001 | .92710 | .92420 | .91690 | .95960 | .96330 | .96650 | .96630 | 883.35000 |
| | GRADIENT | .00933 | -.00213 | .00097 | .06081 | .00091 | .00061 | .00060 | .00046 | -.00135 | -.07517 |

(BE7R07) (02 AUG 76 10)

TABLATED DATA - 0A161 (ARC 11-97-87-09*)

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0308

REFERENCE DATA

BETA = 5.000 ELEVON = .000
 ALPHA = 10.379 AILERON = -7.170
 RUN NO. 301/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSP) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.556 | .026 | 4.56670 | 1549.6000 | .90130 | .89580 | .88630 | .92230 | .93080 | .93680 | .14720 | 659.32000 |
| 1.566 | 2.042 | 4.56210 | 1551.0000 | .90390 | .89760 | .88800 | .92210 | .93140 | .93730 | .14710 | 659.92000 |
| 1.556 | 4.115 | 4.56310 | 1551.8000 | .90590 | .90000 | .89230 | .92310 | .93348 | .93930 | .14700 | 660.22000 |
| 1.556 | 6.194 | 4.55990 | 1552.5000 | .90730 | .90260 | .89480 | .92560 | .93420 | .94010 | .14750 | 660.52000 |
| 1.556 | 8.262 | 4.56200 | 1556.7000 | .90970 | .90590 | .89720 | .93060 | .93750 | .94320 | .14540 | 662.33000 |
| 1.566 | 10.331 | 4.56110 | 1563.2000 | .90730 | .90390 | .89530 | .93000 | .93610 | .94130 | .14810 | 663.83000 |
| 1.536 | 12.379 | 4.56860 | 1557.39999 | .90460 | .89380 | .88260 | .93250 | .93750 | .94150 | .14090 | 665.63000 |
| 1.536 | 14.462 | 4.57190 | 1556.0000 | .89890 | .89220 | .88210 | .93071 | .93500 | .94140 | .14080 | 662.33000 |
| 1.536 | 16.808 | 4.57840 | 1556.7000 | .89400 | .88840 | .88210 | .93091 | .93780 | .94210 | .13850 | 662.63000 |
| 1.566 | 18.707 | 4.58310 | 1557.39999 | .89200 | .88590 | .87500 | .93150 | .93780 | .94200 | .13550 | 662.93000 |
| 1.566 | 20.736 | 4.59180 | 1558.1000 | .88530 | .88220 | .86960 | .93150 | .93780 | .94200 | .12820 | 663.53000 |
| 1.566 | 24.885 | 4.59620 | 1559.5000 | .86780 | .86460 | .85350 | .92670 | .93030 | .93350 | .12450 | 662.63000 |
| 1.566 | 25.912 | 4.60640 | 1556.0000 | .86720 | .86240 | .84910 | .92580 | .93010 | .93330 | .12450 | 662.63000 |
| 1.566 | GRADIENT | -.00087 | .53752 | .00137 | .00103 | .00132 | .00132 | .00064 | .00037 | .00005 | .21975 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSP) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.750 | -.077 | 4.75100 | 1655.7000 | .81780 | .80620 | .79050 | .85140 | .87030 | .88150 | .10250 | 666.67000 |
| 1.750 | 1.916 | 4.74770 | 1655.7000 | .81878 | .80940 | .79280 | .85170 | .87180 | .88270 | .10230 | 666.67000 |
| 1.750 | 3.932 | 4.74880 | 1655.7000 | .82260 | .81190 | .79670 | .85920 | .87420 | .88450 | .10350 | 666.67000 |
| 1.750 | 6.056 | 4.74840 | 1656.39999 | .82340 | .81510 | .80070 | .86110 | .87450 | .88460 | .10260 | 666.67000 |
| 1.750 | 8.127 | 4.75090 | 1655.7000 | .82470 | .81630 | .80250 | .86500 | .87730 | .88620 | .10290 | 666.67000 |
| 1.750 | 10.190 | 4.74920 | 1655.7000 | .82330 | .81540 | .80320 | .86630 | .87760 | .88730 | .10290 | 666.67000 |
| 1.750 | 12.232 | 4.75260 | 1655.0000 | .82280 | .81350 | .80330 | .86900 | .87810 | .88730 | .10030 | 666.39000 |
| 1.750 | 14.317 | 4.75780 | 1656.39999 | .81840 | .80760 | .79050 | .86910 | .87770 | .88620 | .09610 | 666.65000 |
| 1.750 | 15.459 | 4.76680 | 1655.7000 | .81440 | .80510 | .78720 | .86810 | .87600 | .88650 | .09680 | 666.67000 |
| 1.750 | 18.547 | 4.76680 | 1655.0000 | .81390 | .80330 | .78630 | .86870 | .87500 | .88500 | .09410 | 666.39000 |
| 1.750 | 20.574 | 4.76810 | 1655.0000 | .80680 | .79860 | .78010 | .86540 | .87350 | .88160 | .09410 | 666.39000 |
| 1.750 | 24.717 | 4.78240 | 1656.39999 | .78730 | .77790 | .76100 | .86610 | .86780 | .87500 | .08820 | 666.96000 |
| 1.750 | 25.748 | 4.78120 | 1655.7000 | .77880 | .77150 | .75520 | .86000 | .86680 | .87550 | .08530 | 666.67000 |
| 1.750 | GRADIENT | -.00053 | -.00001 | .00118 | .00140 | .00153 | .00118 | .00096 | .00071 | .00027 | .00003 |

TABULATED DATA - OA161 (ARC 11-97-87-884)

ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XC
 LREF = 474.8000 IN. YMRP = .0000 IN. YC
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZC
 SCALE = .0300

BETA = 5.000 ELEVON = .CR0
 AILRON = .000 BOFLAP = .77

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | PT9/PT |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1.996 | -.017 | 4.22740 | 1834.02000 | .70170 | .68230 | .65720 | .73910 | .76640 | .78500 | .05960 | .78500 | .05960 |
| 1.996 | 1.974 | 4.22430 | 1831.10001 | .76470 | .68630 | .65990 | .74130 | .76880 | .78680 | .06390 | .78680 | .06390 |
| 1.996 | 4.036 | 4.22380 | 1831.10001 | .70860 | .68430 | .68430 | .74320 | .76890 | .78740 | .06460 | .78740 | .06460 |
| 1.996 | 6.098 | 4.22310 | 1831.10001 | .71110 | .69450 | .66830 | .74730 | .77150 | .78970 | .06390 | .78970 | .06390 |
| 1.996 | 8.157 | 4.22330 | 1833.20000 | .71300 | .69800 | .67210 | .75110 | .77440 | .79160 | .06420 | .79160 | .06420 |
| 1.996 | 10.215 | 4.22460 | 1834.70000 | .71210 | .69810 | .67530 | .75420 | .77520 | .79270 | .06360 | .79270 | .06360 |
| 1.996 | 12.255 | 4.22460 | 1834.70000 | .71430 | .69810 | .67790 | .75620 | .77710 | .79270 | .05980 | .79270 | .05980 |
| 1.996 | 14.336 | 4.22670 | 1839.60001 | .71200 | .69760 | .67360 | .75730 | .77550 | .79160 | .05980 | .79160 | .05980 |
| 1.996 | 16.475 | 4.22930 | 1845.30000 | .70900 | .69610 | .68210 | .75770 | .77480 | .78980 | .05980 | .78980 | .05980 |
| 1.996 | 18.595 | 4.23360 | 1843.89999 | .70360 | .69020 | .66780 | .75651 | .77220 | .78560 | .05820 | .78560 | .05820 |
| 1.996 | 20.577 | 4.23730 | 1841.70000 | .69959 | .68650 | .66110 | .75770 | .77100 | .78410 | .05670 | .78410 | .05670 |
| 1.996 | 22.654 | 4.24270 | 1843.89999 | .69230 | .67870 | .65320 | .75620 | .77100 | .78320 | .05310 | .78320 | .05310 |
| 1.996 | 24.713 | 4.24870 | 1843.10001 | .68160 | .66670 | .64290 | .75220 | .76840 | .78100 | .05290 | .78100 | .05290 |
| 1.996 | 25.736 | 4.25180 | 1842.39998 | .67540 | .66070 | .63660 | .75300 | .76880 | .78180 | .05290 | .78180 | .05290 |
| | GRADIENT | | | .00121 | .00220 | .00175 | .00101 | .00052 | .00059 | .00024 | .00059 | .00024 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | PT9/PT |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2.250 | -.075 | 4.07550 | 2059.60001 | .59620 | .56970 | .53390 | .62510 | .66370 | .68840 | .04190 | .68840 | .04190 |
| 2.250 | 1.900 | 4.07410 | 2059.89999 | .60070 | .57490 | .53880 | .62740 | .66590 | .68980 | .04070 | .68980 | .04070 |
| 2.250 | 3.954 | 4.06880 | 2059.60001 | .60410 | .57990 | .54300 | .62910 | .66600 | .69140 | .04080 | .69140 | .04080 |
| 2.250 | 6.005 | 4.07090 | 2059.60001 | .60530 | .58390 | .54830 | .64110 | .67080 | .69420 | .03950 | .69420 | .03950 |
| 2.250 | 8.059 | 4.07180 | 2058.89999 | .60850 | .58720 | .55350 | .64450 | .67590 | .69620 | .03800 | .69620 | .03800 |
| 2.250 | 10.107 | 4.06760 | 2059.60001 | .61080 | .59190 | .55200 | .64450 | .67610 | .69700 | .03510 | .69700 | .03510 |
| 2.250 | 12.139 | 4.07270 | 2058.89999 | .61230 | .59560 | .56430 | .64740 | .67840 | .69930 | .03580 | .69930 | .03580 |
| 2.250 | 14.212 | 4.07440 | 2058.89999 | .61270 | .59330 | .56520 | .65080 | .68080 | .70070 | .03450 | .70070 | .03450 |
| 2.250 | 16.339 | 4.07780 | 2059.60001 | .61500 | .59150 | .56870 | .65200 | .68200 | .70180 | .03450 | .70180 | .03450 |
| 2.250 | 18.413 | 4.08130 | 2058.89999 | .61400 | .58880 | .56500 | .65150 | .68100 | .70300 | .03380 | .70300 | .03380 |
| 2.250 | 20.426 | 4.08360 | 2059.60001 | .61710 | .59070 | .56710 | .65200 | .68100 | .70400 | .03300 | .70400 | .03300 |
| 2.250 | 22.494 | 4.08840 | 2058.89999 | .61500 | .58710 | .56360 | .64840 | .67800 | .70400 | .03230 | .70400 | .03230 |
| 2.250 | 24.545 | 4.09400 | 2058.89999 | .61260 | .58500 | .56190 | .64500 | .67600 | .70500 | .03190 | .70500 | .03190 |
| 2.250 | 25.565 | 4.09700 | 2058.89999 | .61190 | .58220 | .55700 | .64250 | .67300 | .70600 | .03190 | .70600 | .03190 |
| | GRADIENT | | | .00187 | .00226 | .00226 | .00175 | .00057 | .00074 | .00032 | .00074 | .00032 |

TABULATED DATA - 0A161 (ARC 11-97-87-09H)

(BETR07) (02 AUG 78)

ARC 11-97-87-09H 0A161 ORBITER + RAKES

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.8800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 5.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RUN NO. 4457 0 RM/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSS) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 2.499 | .089 | 5.18610 | 1490.20000 | .45480 | .47890 | .41760 | .52670 | .57390 | .59570 | .02680 | 381.97000 |
| 2.499 | 2.152 | 5.15910 | 1490.20000 | .45950 | .47890 | .42200 | .52930 | .57590 | .60320 | .02600 | 381.97000 |
| 2.499 | 4.178 | 5.13610 | 1490.20000 | .46930 | .47890 | .42680 | .53110 | .57710 | .60520 | .02530 | 381.97000 |
| 2.499 | 6.242 | 5.11880 | 1490.20000 | .47330 | .47890 | .43100 | .53480 | .58060 | .60690 | .02550 | 381.97000 |
| 2.499 | 8.248 | 5.10470 | 1490.20000 | .47790 | .47890 | .43520 | .54290 | .58400 | .60910 | .02470 | 381.97000 |
| 2.499 | 10.294 | 5.09540 | 1490.20000 | .47770 | .47890 | .44360 | .54730 | .58550 | .61050 | .02320 | 381.97000 |
| 2.499 | 12.358 | 5.08820 | 1490.20000 | .47790 | .47890 | .44570 | .55110 | .58640 | .61140 | .02260 | 381.97000 |
| 2.499 | 14.383 | 5.08640 | 1490.20000 | .47890 | .47890 | .44790 | .55440 | .58810 | .61180 | .02140 | 381.97000 |
| 2.499 | 16.424 | 5.08820 | 1490.20000 | .47410 | .47890 | .44570 | .55540 | .58710 | .61030 | .02150 | 381.97000 |
| 2.499 | 18.454 | 5.09410 | 1490.20000 | .46700 | .47410 | .44570 | .55730 | .58670 | .60920 | .02070 | 381.97000 |
| 2.499 | 20.513 | 5.10490 | 1490.20000 | .45600 | .46700 | .44100 | .55548 | .58450 | .60740 | .02030 | 381.97000 |
| 2.499 | 22.586 | 5.11770 | 1490.20000 | .44390 | .45600 | .43460 | .55363 | .58170 | .60440 | .02080 | 381.97000 |
| 2.499 | 24.631 | 5.13580 | 1490.20000 | .42920 | .44390 | .42860 | .55210 | .57840 | .60100 | .02070 | 381.97000 |
| 2.499 | 26.651 | 5.14740 | 1490.20000 | .41510 | .42920 | .42320 | .55060 | .57840 | .60135 | .02070 | 381.97000 |
| 2.499 | GRADIENT | -.01225 | -.03000 | .00233 | .00226 | .00226 | .00108 | .00078 | .00135 | .00037 | -.00000 |

RUN NO. 4356 0 RM/L = 1.96 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSS) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 3.040 | .096 | 5.34900 | 2018.50000 | .29530 | .26860 | .23510 | .33880 | .38890 | .41610 | .01110 | 335.06000 |
| 3.040 | 2.152 | 5.32410 | 2017.10000 | .29930 | .27300 | .23910 | .33980 | .39130 | .41880 | .01050 | 335.06000 |
| 3.040 | 4.170 | 5.30100 | 2017.80000 | .30470 | .27780 | .24230 | .34320 | .39230 | .42090 | .01030 | 335.06000 |
| 3.040 | 6.207 | 5.28370 | 2018.50000 | .30886 | .28190 | .24520 | .34560 | .39420 | .42190 | .01030 | 335.06000 |
| 3.040 | 8.224 | 5.26870 | 2017.80000 | .30960 | .28730 | .25120 | .35260 | .39790 | .42470 | .01000 | 335.06000 |
| 3.040 | 10.250 | 5.25860 | 2018.50000 | .31130 | .28730 | .25560 | .35810 | .39880 | .42630 | .00950 | 335.06000 |
| 3.040 | 12.321 | 5.25170 | 2017.80000 | .31260 | .29290 | .26030 | .36270 | .40050 | .42730 | .00940 | 335.06000 |
| 3.040 | 14.331 | 5.24940 | 2018.50000 | .31300 | .29410 | .26200 | .36570 | .40200 | .42800 | .00900 | 335.06000 |
| 3.040 | 16.357 | 5.25040 | 2018.50000 | .31040 | .29360 | .26280 | .36670 | .40140 | .42690 | .00890 | 335.06000 |
| 3.040 | 18.394 | 5.25650 | 2018.50000 | .30560 | .29110 | .26150 | .36750 | .40090 | .42660 | .00880 | 335.06000 |
| 3.040 | 20.430 | 5.26880 | 2018.50000 | .30080 | .28860 | .26000 | .36740 | .39850 | .42550 | .00820 | 335.06000 |
| 3.040 | 22.464 | 5.28190 | 2018.50000 | .29390 | .28030 | .25650 | .36440 | .39630 | .42250 | .00840 | 335.06000 |
| 3.040 | 24.501 | 5.29840 | 2017.80000 | .28690 | .27280 | .25250 | .36230 | .39400 | .41890 | .00830 | 335.06000 |
| 3.040 | 26.523 | 5.30870 | 2018.50000 | .28050 | .26850 | .24920 | .36020 | .39150 | .41540 | .00840 | 335.06000 |
| 3.040 | GRADIENT | -.01178 | -.03700 | .00231 | .00226 | .00177 | .00103 | .00084 | .00118 | .00037 | -.00000 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITTER + RAKES

(BET7807) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.800 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 435/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 3.499 | -1.93 | 5.47560 | 2682.00000 | .19490 | .17220 | .14620 | .23100 | .27490 | .29990 | .00590 | 301.84000 |
| 3.499 | 4.203 | 5.44880 | 2682.00000 | .19860 | .17540 | .14770 | .23010 | .27550 | .30220 | .00560 | 301.84000 |
| 3.499 | 8.368 | 5.42960 | 2679.79999 | .20260 | .17830 | .15100 | .22880 | .27800 | .30400 | .00540 | 301.84000 |
| 3.499 | 10.475 | 5.40910 | 2682.00000 | .20520 | .18300 | .15330 | .22620 | .27960 | .30510 | .00530 | 301.84000 |
| 3.499 | 12.587 | 5.39290 | 2673.79999 | .20760 | .18860 | .15810 | .22450 | .28140 | .30690 | .00520 | 301.84000 |
| 3.499 | 14.692 | 5.38160 | 2682.00000 | .20920 | .19270 | .16150 | .22460 | .28490 | .30850 | .00490 | 301.84000 |
| 3.499 | 16.829 | 5.37640 | 2679.79999 | .20980 | .19560 | .16310 | .22600 | .28910 | .31050 | .00470 | 301.84000 |
| 3.499 | 18.068 | 5.37460 | 2688.80000 | .20930 | .19430 | .16300 | .22520 | .28690 | .31080 | .00450 | 301.84000 |
| 3.499 | 20.100 | 5.38210 | 2679.79999 | .20470 | .19260 | .16700 | .22430 | .28700 | .31030 | .00460 | 301.84000 |
| 3.499 | 22.131 | 5.39070 | 2682.00000 | .20080 | .18890 | .16610 | .22370 | .28370 | .30860 | .00460 | 301.84000 |
| 3.499 | 24.167 | 5.40290 | 2668.60000 | .19600 | .18360 | .16400 | .22170 | .28140 | .30990 | .00460 | 301.84000 |
| 3.499 | 25.177 | 5.42230 | 2679.79999 | .19010 | .17790 | .16090 | .21980 | .27780 | .30890 | .00440 | 301.84000 |
| 3.499 | GRADIENT | 5.43320 | 2680.60000 | .18760 | .17490 | .15810 | .21740 | .27610 | .29920 | .00440 | 301.84000 |
| | | -0.1139 | -0.54284 | .00196 | .00151 | .00119 | .00044 | .00072 | .00101 | .00012 | .00922 |

ARC 11-97-87-094 0A161 ORBITTER + TUFTS

(BET7808) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 98/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .597 | 1.93 | -4.93390 | 2605.60000 | .74650 | .74590 | .74560 | .74610 | .74620 | .74670 | .74140 | 510.22000 |
| .596 | 4.203 | -4.94460 | 2606.29999 | .74530 | .74580 | .74580 | .74590 | .74560 | .74570 | .74400 | 510.24000 |
| .596 | 8.368 | -4.95480 | 2606.29999 | .74520 | .74550 | .74570 | .74530 | .74550 | .74500 | .74420 | 509.65000 |
| .596 | 10.475 | -4.91608 | 2607.00000 | .74390 | .74530 | .74500 | .74490 | .74490 | .74390 | .74488 | 510.25000 |
| .596 | 12.587 | -4.88530 | 2607.00000 | .74390 | .74400 | .74520 | .74430 | .74490 | .74390 | .74350 | 510.24000 |
| .597 | 14.692 | -4.87890 | 2607.70000 | .74130 | .74150 | .74160 | .73900 | .73870 | .74160 | .74160 | 510.24000 |
| .597 | 16.799 | -4.88310 | 2607.70000 | .73940 | .73950 | .73940 | .73900 | .73930 | .73870 | .73770 | 510.24000 |
| .596 | 21.015 | -4.90026 | 2697.70000 | .73300 | .73320 | .73310 | .73260 | .73290 | .73310 | .00084 | 004.93 |
| | | -0.0118 | 1.7244 | .00068 | .00062 | .00005 | .00012 | .00015 | .00025 | .00084 | .00493 |

(BE7ROB) 1, 02 AUG 76

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6860 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|----------|--------|----------|------------|--------|---------|--------|---------|--------|--------|---------|-----------|
| .796 | .117 | -4.95780 | 2186.20001 | .59390 | .59470 | .59430 | .59560 | .59430 | .59420 | .75420 | 638.70000 |
| .798 | 4.239 | -4.95340 | 2187.50001 | .59330 | .59430 | .59490 | .59520 | .59520 | .59490 | .69470 | 640.75000 |
| .797 | 8.448 | -4.94360 | 2187.60001 | .59308 | .59480 | .59480 | .59490 | .59410 | .59350 | .64610 | 639.76000 |
| .798 | 10.577 | -4.93760 | 2289.29999 | .59150 | .59200 | .59290 | .59330 | .59270 | .59460 | .61770 | 652.81000 |
| .795 | 12.699 | -4.91630 | 2230.60000 | .58850 | .58850 | .58750 | .58750 | .58740 | .58350 | .60620 | 551.89000 |
| .798 | 14.828 | -4.91790 | 2230.00000 | .58540 | .58520 | .58440 | .58440 | .58350 | .58350 | .58640 | 653.34000 |
| .798 | 16.946 | -4.98730 | 2230.00000 | .58260 | .58270 | .58180 | .58140 | .58070 | .58350 | .58910 | 651.88000 |
| .795 | 21.232 | -4.94380 | 2230.78001 | .56910 | .56990 | .57160 | .57100 | .57100 | .57010 | .56070 | 650.46000 |
| GRADIENT | | -.00087 | .34002 | .00010 | -.00010 | .00015 | -.00036 | .00022 | .00017 | -.01688 | .90556 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .850 | .165 | -4.96770 | 2177.70001 | .55260 | .55280 | .55260 | .55250 | .55320 | .55390 | .54270 | 687.06000 |
| .851 | 4.248 | -4.98080 | 2177.70001 | .55440 | .55490 | .55330 | .55430 | .55490 | .55320 | .54810 | 687.52000 |
| .848 | 8.470 | -4.93900 | 2177.70001 | .55480 | .55530 | .55530 | .55620 | .55530 | .55520 | .55150 | 684.76000 |
| .848 | 10.586 | -4.92960 | 2177.70001 | .55190 | .55350 | .55330 | .55290 | .55270 | .55210 | .55230 | 684.76000 |
| .847 | 12.714 | -4.91650 | 2177.00000 | .54930 | .54890 | .54930 | .54850 | .54740 | .54860 | .55110 | 683.55000 |
| .849 | 14.846 | -4.92950 | 2177.00001 | .54520 | .54520 | .54550 | .54590 | .54380 | .54410 | .54810 | 684.76000 |
| .848 | 16.973 | -4.92250 | 2177.00000 | .54010 | .54010 | .54810 | .54020 | .53940 | .54080 | .54540 | 684.76000 |
| .846 | 21.262 | -4.98170 | 2179.39999 | .52260 | .52260 | .52240 | .52290 | .52340 | .52320 | .53560 | 683.45000 |
| GRADIENT | | .00167 | .00000 | .00029 | .00054 | .00027 | .00043 | .00041 | .00031 | .00130 | 1.1109 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| .900 | .105 | -4.96550 | 2088.60001 | .52060 | .52040 | .52060 | .52080 | .51990 | .52030 | .81410 | 699.85000 |
| .902 | 4.261 | -4.97360 | 2087.20001 | .52210 | .52210 | .52210 | .52110 | .52100 | .52050 | .68740 | 701.01000 |
| .900 | 8.474 | -4.93830 | 2087.89999 | .52140 | .52310 | .52320 | .52280 | .52280 | .52320 | .61660 | 699.83000 |
| .897 | 10.612 | -4.94510 | 2085.39999 | .51170 | .51360 | .51440 | .51500 | .51370 | .51370 | .57330 | 700.72000 |
| .897 | 12.727 | -4.92900 | 2085.70001 | .50950 | .50950 | .51000 | .50910 | .50800 | .50840 | .54630 | 697.05000 |
| .897 | 14.861 | -4.93440 | 2085.39999 | .50660 | .50530 | .50640 | .50410 | .50330 | .50240 | .52730 | 697.82000 |
| .899 | 16.995 | -4.94010 | 2085.70001 | .49980 | .49980 | .49860 | .49910 | .49800 | .49880 | .51560 | 697.82000 |
| .902 | 21.284 | -4.97950 | 2087.20001 | .47630 | .47630 | .47630 | .47340 | .47430 | .47400 | .49820 | 701.43000 |
| GRADIENT | | -.00190 | -.33685 | .00043 | .00041 | .00051 | .00037 | .00026 | .00005 | -.03099 | 2.6549 |

(BE7R08) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-87-87-094)

ARC 11-97-87-094 0A161 ORBITER + TUFIS

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AIRLON = .000 BDELAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .950 | .112 | -4.97210 | 2056.00000 | .46290 | .46310 | .46310 | .46160 | .46290 | .46410 | .45340 | 726.44000 |
| .975 | 4.295 | -4.97630 | 2055.29999 | .46760 | .46840 | .46840 | .46840 | .46760 | .46660 | .46020 | 724.83000 |
| .983 | 8.519 | -4.95960 | 2056.00000 | .46880 | .46940 | .46940 | .46350 | .46380 | .46520 | .46300 | 725.57000 |
| .987 | 10.652 | -4.95620 | 2056.00000 | .46230 | .46270 | .46190 | .46060 | .46110 | .46040 | .46300 | 724.52000 |
| .994 | 12.789 | -4.94230 | 2055.29999 | .45720 | .45810 | .45810 | .45950 | .45930 | .45980 | .46150 | 724.06000 |
| .995 | 14.929 | -4.93310 | 2056.00000 | .44980 | .44990 | .44860 | .44870 | .44960 | .44780 | .45620 | 723.75000 |
| .996 | 17.075 | -4.94750 | 2055.29999 | .44570 | .44400 | .44400 | .44420 | .44340 | .44120 | .43000 | 723.67000 |
| .997 | 21.367 | -4.94430 | 2055.00000 | .41720 | .41580 | .41530 | .41410 | .41390 | .41500 | .43470 | 724.91000 |
| GRADIENT | | | | .00113 | .00118 | .00127 | .00163 | .00104 | .00060 | .00163 | -7.28678 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .983 | .120 | -4.97160 | 2067.39999 | .41950 | .41910 | .42178 | .41820 | .41770 | .41710 | .42790 | 753.66000 |
| .979 | 4.295 | -4.96580 | 2064.50000 | .42540 | .42330 | .42490 | .42570 | .42350 | .42400 | .42700 | 749.98000 |
| .983 | 8.550 | -4.95930 | 2066.79999 | .41560 | .41950 | .41680 | .41680 | .41520 | .41660 | .42280 | 754.20000 |
| .984 | 10.692 | -4.93310 | 2063.79999 | .42100 | .42390 | .42130 | .42280 | .42060 | .41998 | .42260 | 750.63000 |
| .976 | 12.834 | -4.91560 | 2063.10001 | .41980 | .41880 | .41930 | .41840 | .41780 | .41790 | .42250 | 747.57000 |
| .980 | 14.956 | -4.93250 | 2063.79999 | .41310 | .40980 | .40980 | .41000 | .40890 | .40890 | .41700 | 750.26000 |
| .978 | 17.144 | -4.94320 | 2063.10001 | .40830 | .40840 | .40840 | .40770 | .40670 | .40550 | .41290 | 748.31000 |
| .979 | 21.471 | -4.95360 | 2064.50000 | .38690 | .38690 | .38610 | .38870 | .38570 | .38590 | .40120 | 749.50000 |
| GRADIENT | | | | .00144 | .00101 | .00077 | .00180 | .00141 | .00165 | .00022 | -1.288139 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | W(P5F) |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.050 | .123 | -4.98830 | 2040.50000 | .36270 | .36180 | .36090 | .36070 | .36090 | .36100 | .34040 | 784.50000 |
| 1.049 | 4.301 | -4.95880 | 2041.20000 | .36100 | .35860 | .35798 | .35900 | .35710 | .35740 | .34750 | 783.95000 |
| 1.047 | 8.566 | -4.94610 | 2041.20000 | .35700 | .35420 | .35390 | .35610 | .35530 | .35530 | .35060 | 782.69000 |
| 1.049 | 10.716 | -4.94380 | 2041.20000 | .35300 | .35110 | .35100 | .35210 | .35180 | .35190 | .35140 | 783.64000 |
| 1.049 | 12.871 | -4.93310 | 2041.20000 | .34980 | .35180 | .34910 | .35070 | .35060 | .35040 | .35070 | 783.95000 |
| 1.048 | 15.047 | -4.94120 | 2041.20000 | .34520 | .34550 | .34630 | .34710 | .34620 | .34520 | .34810 | 783.32000 |
| 1.045 | 21.535 | -4.96660 | 2043.30000 | .32620 | .32720 | .32650 | .32650 | .32650 | .32650 | .33650 | 782.40000 |
| GRADIENT | | | | .00449 | .00077 | .00062 | .00041 | .00091 | .00086 | .00170 | -1.54787 |

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(BE7R08) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BUFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|----------|------------|---------|---------|--------|---------|---------|---------|---------|-----------|
| 1.100 | .121 | -4.98980 | 2013.60001 | .33030 | .33110 | .33030 | .33110 | .33110 | .33080 | .33570 | 798.71000 |
| 1.099 | 4.299 | -4.97370 | 2012.20000 | .33030 | .33030 | .33050 | .33070 | .33000 | .33020 | .33430 | 797.62000 |
| 1.097 | 8.564 | -4.96200 | 2013.60001 | .32480 | .32430 | .32440 | .32460 | .32390 | .32410 | .32950 | 797.32000 |
| 1.087 | 10.718 | -4.94600 | 2012.20000 | .32620 | .32620 | .32650 | .32640 | .32540 | .32520 | .32790 | 796.78000 |
| 1.097 | 12.872 | -4.92800 | 2012.89999 | .32650 | .32650 | .32680 | .32680 | .32670 | .32230 | .32758 | 797.19000 |
| 1.095 | 15.046 | -4.91790 | 2012.89999 | .32310 | .32280 | .32240 | .32180 | .32220 | .32220 | .32470 | 798.36000 |
| 1.095 | 17.208 | -4.90820 | 2012.20000 | .32020 | .32020 | .32010 | .32000 | .32030 | .32220 | .32680 | 795.54000 |
| 1.096 | 21.534 | -4.97910 | 2014.30000 | .30460 | .30400 | .30370 | .30360 | .30340 | .30370 | .31450 | 797.45000 |
| | GRADIENT | .00366 | -.33510 | -.00019 | -.00019 | .00005 | -.00010 | -.00026 | -.00014 | -.00065 | -.26694 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.149 | .109 | -4.98060 | 2005.10000 | .30770 | .30700 | .30670 | .30700 | .30810 | .30810 | .29940 | 815.95000 |
| 1.149 | 4.282 | -4.96990 | 2003.70000 | .30640 | .30510 | .30580 | .30610 | .30660 | .30750 | .30280 | 815.64000 |
| 1.147 | 8.553 | -4.95110 | 2005.80000 | .30080 | .30030 | .29980 | .30060 | .29810 | .29910 | .30080 | 815.39000 |
| 1.149 | 10.710 | -4.94850 | 2005.10001 | .29900 | .29970 | .29970 | .29890 | .29800 | .29960 | .29958 | 815.95000 |
| 1.156 | 12.865 | -4.93650 | 2004.39999 | .29790 | .29750 | .29810 | .29800 | .29810 | .29790 | .29940 | 816.03000 |
| 1.146 | 15.043 | -4.95170 | 2005.10001 | .29840 | .29830 | .29760 | .29710 | .29410 | .29650 | .29710 | 815.40000 |
| 1.146 | 17.225 | -4.96410 | 2005.10001 | .28120 | .28150 | .28160 | .28180 | .28270 | .28240 | .29030 | 815.46000 |
| 1.145 | 21.532 | -4.97480 | 2007.20000 | -.00051 | -.00046 | -.00022 | -.00022 | -.00036 | -.00024 | .00084 | -.07430 |
| | GRADIENT | .00254 | -.33595 | -.00019 | -.00019 | -.00022 | -.00022 | -.00036 | -.00024 | -.00084 | -.07430 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.198 | .108 | -4.98160 | 1998.70000 | .27900 | .27830 | .27870 | .27930 | .27930 | .27990 | .30270 | 830.15000 |
| 1.199 | 4.277 | -4.98350 | 1999.30000 | .27950 | .27910 | .28040 | .28100 | .28010 | .27960 | .29300 | 830.87000 |
| 1.194 | 8.548 | -4.95980 | 2000.89999 | .27500 | .27460 | .27460 | .27430 | .27500 | .27550 | .28490 | 830.45000 |
| 1.199 | 10.700 | -4.95640 | 1999.50000 | .27280 | .27250 | .27250 | .27160 | .27230 | .27140 | .27320 | 830.48000 |
| 1.197 | 12.869 | -4.94400 | 1999.50000 | .27120 | .27110 | .27050 | .27010 | .27040 | .26940 | .27530 | 830.09000 |
| 1.196 | 15.033 | -4.95980 | 1998.50000 | .26810 | .26830 | .26790 | .26810 | .26850 | .26940 | .27230 | 829.88000 |
| 1.195 | 17.198 | -4.96430 | 1999.50000 | .26500 | .26500 | .26540 | .26580 | .26540 | .26590 | .26990 | 829.19000 |
| 1.189 | 21.518 | -4.98200 | 2000.89999 | .26170 | .26110 | .26070 | .26000 | .25910 | .25940 | .26530 | 828.42000 |
| | GRADIENT | -.00048 | -.33510 | -.00019 | -.00019 | -.00019 | -.00041 | -.00019 | -.00007 | -.00232 | -.16441 |

(BE7R08) (102 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = -5.000 ELEVON = 0.000
ATLON = -7.170 BOFLAP = 0.000

REFERENCE DATA

SREF = 2690.0000 SC. FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 150/ 0 RN/L = 4.23 GRADIENT INTERVAL = 5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT0(P5) |
|-------|----------|----------|------------|---------|--------|--------|--------|--------|--------|--------|-----------|
| 1.289 | .036 | -4.92240 | 2002.30000 | .22920 | .22890 | .22930 | .22890 | .22850 | .23043 | .22450 | 854.61000 |
| 1.300 | 4.252 | -4.96650 | 2005.60009 | .22910 | .22870 | .22940 | .22970 | .22990 | .23043 | .22680 | 856.40000 |
| 1.299 | 8.517 | -4.96060 | 2005.40001 | .22840 | .22860 | .22790 | .22850 | .22750 | .22758 | .22720 | 855.40000 |
| 1.295 | 10.667 | -4.99030 | 2005.60000 | .22490 | .22530 | .22480 | .22450 | .22530 | .22460 | .22610 | 855.63000 |
| 1.294 | 12.824 | -4.94320 | 2005.80000 | .22330 | .22260 | .22340 | .22400 | .22250 | .22570 | .22470 | 855.52000 |
| 1.295 | 14.993 | -4.96960 | 2005.80000 | .22170 | .22190 | .22120 | .22100 | .22190 | .22190 | .22320 | 855.86000 |
| 1.295 | 17.156 | -4.96800 | 2005.80000 | .21930 | .21970 | .21950 | .21960 | .21980 | .21930 | .22190 | 855.63000 |
| 1.283 | 21.480 | -4.98790 | 2005.80000 | .21510 | .21490 | .21510 | .21470 | .21530 | .21490 | .22160 | 855.29000 |
| | GRADIENT | .00094 | .84214 | -.06002 | .00019 | .00002 | .00019 | .00031 | .00043 | .00053 | 854.43000 |

RUN NO. 151/ 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT0(P5) |
|-------|----------|----------|------------|---------|--------|--------|---------|--------|--------|--------|-----------|
| 1.403 | .077 | -5.01760 | 2039.10001 | .19010 | .19010 | .19050 | .19010 | .18970 | .18980 | .20420 | 870.16000 |
| 1.405 | 4.224 | -5.04920 | 2037.60001 | .18960 | .18920 | .19000 | .18970 | .18970 | .18980 | .19810 | 878.58000 |
| 1.400 | 8.487 | -4.95590 | 2038.39999 | .19060 | .19020 | .19050 | .19030 | .19050 | .19040 | .19300 | 878.81000 |
| 1.400 | 10.633 | -4.96570 | 2038.39999 | .18840 | .18860 | .18890 | .18840 | .18820 | .18930 | .19130 | 878.81000 |
| 1.400 | 12.784 | -4.94320 | 2037.60001 | .18550 | .18530 | .18510 | .18490 | .18520 | .18490 | .18840 | 878.50000 |
| 1.399 | 14.948 | -4.97440 | 2039.39999 | .18450 | .18520 | .18490 | .18490 | .18520 | .18470 | .18760 | 878.78000 |
| 1.399 | 17.110 | -4.97070 | 2038.39999 | .18350 | .18380 | .18390 | .18310 | .18350 | .18330 | .18560 | 878.78000 |
| 1.393 | 21.443 | -4.96750 | 2039.10001 | .18190 | .18260 | .18290 | .18190 | .18190 | .18100 | .18370 | 876.96000 |
| | GRADIENT | .00035 | .36171 | -.00012 | .00022 | .00012 | -.00010 | .00010 | .00000 | .00147 | 854.39660 |

(BETRO9) 1-02 AUG 76

TABLATED DATA - OAI61 (ARC 11-97-87-09%)
ARC 11-97-87-09% OAI61 ORBITER + RUTTS

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = 0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA =
AIRLON =

RUN NO. 987 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | LO/PS |
|------|----------|----------|-----------|---------|---------|---------|---------|--------|--------|--------|-----------|
| .595 | .112 | -1.89250 | 2590.7500 | .74770 | .74810 | .74830 | .74870 | .74810 | .74810 | .74810 | 505.87000 |
| .595 | .181 | -1.85830 | 2598.3999 | .74750 | .74740 | .74790 | .74740 | .74810 | .74870 | .74870 | 515.86000 |
| .597 | .8.344 | -1.88240 | 2607.7000 | .74570 | .74620 | .74670 | .74590 | .74610 | .74570 | .74570 | 511.42000 |
| .597 | 10.432 | -1.84470 | 2607.7000 | .74560 | .74480 | .74630 | .74490 | .74600 | .74570 | .74570 | 510.84000 |
| .597 | 12.573 | -1.84630 | 2607.7000 | .74450 | .74410 | .74370 | .74370 | .74440 | .74470 | .74470 | 510.84000 |
| .597 | 14.677 | -1.81490 | 2607.7000 | .74170 | .74170 | .74220 | .74180 | .74190 | .74210 | .74210 | 510.84000 |
| .597 | 16.807 | -1.87850 | 2607.7000 | .73970 | .73940 | .73940 | .73910 | .73880 | .73880 | .73880 | 509.10000 |
| .595 | 21.048 | -1.85320 | 2607.7000 | .73030 | .73010 | .73050 | .72980 | .73040 | .73010 | .73010 | 509.10000 |
| | GRADIENT | .00544 | .17261 | -.00006 | -.00017 | -.00010 | -.00032 | .00000 | .00015 | .00015 | 0.00246 |

RUN NO. 1014 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | LO/PS |
|------|----------|----------|-----------|---------|---------|--------|--------|--------|--------|--------|-----------|
| .796 | .083 | -1.89060 | 2226.5000 | .59800 | .59710 | .59510 | .59710 | .59650 | .59640 | .59640 | 650.23000 |
| .797 | 4.246 | -1.87190 | 2227.8999 | .59300 | .59480 | .59660 | .59770 | .59750 | .59690 | .59690 | 650.23000 |
| .795 | 3.431 | -1.85700 | 2229.2999 | .59610 | .59720 | .59610 | .59570 | .59750 | .59520 | .59520 | 650.23000 |
| .797 | 10.553 | -1.84760 | 2230.0000 | .59080 | .59550 | .59270 | .59420 | .59330 | .59300 | .59300 | 652.65000 |
| .799 | 12.887 | -1.84750 | 2229.2999 | .59080 | .59060 | .59030 | .59060 | .59040 | .59100 | .59100 | 652.65000 |
| .796 | 14.804 | -1.85770 | 2229.2999 | .58420 | .58250 | .58370 | .58250 | .58360 | .58350 | .58350 | 651.36000 |
| .797 | 16.953 | -1.85160 | 2229.2999 | .57890 | .57830 | .57800 | .57860 | .57720 | .57860 | .57860 | 651.36000 |
| .795 | 21.263 | -1.87480 | 2230.0000 | .56480 | .56590 | .56670 | .56670 | .56660 | .56550 | .56550 | 649.64000 |
| | GRADIENT | .00452 | .33873 | -.00073 | -.00056 | .00012 | .00015 | .00027 | .00012 | .00012 | 0.00246 |

RUN NO. 1097 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | LO/PS |
|------|----------|----------|-----------|---------|---------|--------|--------|--------|--------|--------|-----------|
| .848 | .005 | -1.89440 | 2176.2999 | .58700 | .58620 | .58680 | .58620 | .58690 | .58660 | .58660 | 689.65000 |
| .849 | 4.224 | -1.86420 | 2177.7000 | .58540 | .58560 | .58560 | .58520 | .58540 | .58550 | .58550 | 689.65000 |
| .847 | 8.142 | -1.85920 | 2177.7000 | .58550 | .58550 | .58520 | .58480 | .58550 | .58560 | .58560 | 689.65000 |
| .848 | 10.580 | -1.85260 | 2177.7000 | .58300 | .58190 | .58310 | .58250 | .58300 | .58260 | .58260 | 689.65000 |
| .848 | 12.708 | -1.84880 | 2177.7000 | .58430 | .58490 | .58490 | .58400 | .58470 | .58460 | .58460 | 689.65000 |
| .847 | 14.821 | -1.83720 | 2177.7000 | .58250 | .58430 | .58290 | .58270 | .58370 | .58270 | .58270 | 689.65000 |
| .848 | 15.992 | -1.89550 | 2177.7000 | .58270 | .58800 | .58680 | .58600 | .58770 | .58620 | .58620 | 682.63000 |
| .849 | 21.288 | -1.87530 | 2178.3999 | .58270 | .58140 | .52080 | .52280 | .52110 | .52260 | .52260 | 682.63000 |
| | GRADIENT | .00728 | .33750 | -.00014 | -.00014 | .00017 | .00029 | .00075 | .00022 | .00022 | 0.00246 |

(BETRO91) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = -7.270 EDELAP = .000

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094-0A161 ORBITER + TUFTS

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 373.0000 IN. ZO
SCALE = .0300

RUN NO. 112/ 0 RNAL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .900 | .087 | -1.89340 | 2095.60001 | .51660 | .51590 | .51570 | .51750 | .51780 | .51670 | .50700 | 702.22000 |
| .903 | 4.251 | -1.85128 | 2097.79999 | .51840 | .51690 | .51670 | .51910 | .51840 | .51920 | .51790 | 705.76000 |
| .906 | 8.460 | -1.84780 | 2097.79999 | .51860 | .51770 | .51670 | .51680 | .51760 | .51880 | .51750 | 703.27000 |
| .909 | 10.586 | -1.84620 | 2097.79999 | .51620 | .51590 | .51300 | .51450 | .51460 | .51430 | .51450 | 702.40000 |
| .909 | 12.725 | -1.83550 | 2097.79999 | .51040 | .51080 | .50110 | .50960 | .50880 | .50950 | .51220 | 701.54000 |
| .909 | 14.839 | -1.84180 | 2097.79999 | .50210 | .50240 | .50220 | .49560 | .49530 | .49570 | .50390 | 703.63000 |
| .9001 | 17.022 | -1.89060 | 2087.79999 | .49720 | .49540 | .49540 | .49860 | .49570 | .49610 | .48940 | 703.63000 |
| .897 | 21.319 | -1.87620 | 2099.20001 | .47210 | .47160 | .47090 | .47001 | .47190 | .47040 | .46940 | 701.23000 |
| | GRADIENT | .01014 | .52839 | .09043 | .06096 | .00079 | .00033 | .00014 | .00060 | .00110 | .65024 |

RUN NO. 119/ 0 RNAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .947 | .073 | -1.86270 | 2054.60001 | .47130 | .47130 | .47130 | .47108 | .47160 | .46990 | .64130 | 724.35000 |
| .947 | 4.252 | -1.85180 | 2055.29999 | .46900 | .46780 | .46620 | .46680 | .46580 | .46590 | .69230 | 724.65000 |
| .947 | 7.056 | -1.84940 | 2055.29999 | .44470 | .44470 | .44560 | .44450 | .44340 | .44370 | .47700 | 724.19000 |
| .947 | 10.645 | -1.84310 | 2055.29999 | .46420 | .46360 | .46500 | .46260 | .46160 | .46340 | .53400 | 725.44000 |
| .949 | 12.784 | -1.84600 | 2056.70001 | .46400 | .46530 | .45350 | .45410 | .45300 | .45240 | .49350 | 725.44000 |
| .947 | 16.070 | -1.84440 | 2056.70001 | .46340 | .46230 | .46560 | .46640 | .46510 | .46410 | .53780 | 724.60000 |
| .946 | 17.115 | -1.81330 | 2056.09000 | .43940 | .43870 | .43870 | .43850 | .43700 | .43570 | .49970 | 723.75000 |
| .948 | 21.412 | -1.87226 | 2057.39999 | .41890 | .41860 | .41670 | .41620 | .41860 | .41450 | .44760 | 725.45000 |
| | GRADIENT | .00505 | .16748 | .00079 | .00084 | .00127 | .00100 | .00139 | .00093 | .00304 | .67178 |

RUN NO. 122/ 0 RNAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .978 | .085 | -1.89960 | 2061.70001 | .42680 | .42760 | .42780 | .42700 | .42750 | .42670 | .41940 | 749.24000 |
| .979 | 4.268 | -1.85460 | 2064.50000 | .42590 | .42580 | .42580 | .42610 | .42586 | .42680 | .42130 | 749.60000 |
| .980 | 8.534 | -1.84890 | 2066.60001 | .41870 | .41930 | .41930 | .42081 | .41990 | .41990 | .41690 | 751.35000 |
| .980 | 10.602 | -1.82660 | 2066.89999 | .41840 | .41930 | .41830 | .42031 | .41960 | .41780 | .41670 | 751.25000 |
| .982 | 12.827 | -1.83200 | 2067.39999 | .40690 | .40940 | .41000 | .41050 | .40830 | .40740 | .41340 | 752.50000 |
| .980 | 14.970 | -1.84440 | 2066.60001 | .40730 | .40760 | .40940 | .40910 | .40600 | .40600 | .40960 | 750.38000 |
| .981 | 17.181 | -1.81330 | 2056.60001 | .39660 | .39660 | .39760 | .39760 | .39760 | .39640 | .40780 | 751.35000 |
| .976 | 21.382 | -1.86370 | 2068.79999 | .38900 | .39040 | .38840 | .38830 | .38760 | .38980 | .40860 | 749.34000 |
| | GRADIENT | .00598 | .96836 | .00034 | .00060 | .00048 | .00087 | .00036 | .00002 | .00165 | .34396 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 QMB11TER + TUFTS

(BETRO9) (02:000-75)

PARAMETRIC DATA

BETA = -2.000 ELEVATION = .000
ANLROW = .000 EDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 129/ 0 F/V/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | D(PST) |
|-------|----------|----------|------------|--------|--------|--------|---------|--------|--------|--------|-----------|
| 1.051 | .092 | -1.90410 | 2040.50000 | .35950 | .35833 | .35980 | .36190 | .36060 | .36050 | .34250 | 784.75000 |
| 1.050 | 4.280 | -1.87050 | 2053.86000 | .36200 | .36033 | .36070 | .36010 | .36082 | .36370 | .35050 | 783.75000 |
| 1.046 | 8.555 | -1.85150 | 2042.60001 | .35800 | .36040 | .35850 | .35910 | .35930 | .35790 | .36400 | 784.25000 |
| 1.048 | 10.717 | -1.83180 | 2059.80000 | .35470 | .35940 | .35500 | .35820 | .35470 | .35670 | .35380 | 782.75000 |
| 1.050 | 12.863 | -1.82570 | 2040.50000 | .35170 | .35100 | .35070 | .35080 | .34970 | .35090 | .35380 | 783.25000 |
| 1.049 | 15.017 | -1.82260 | 2041.20000 | .34440 | .34450 | .34470 | .34310 | .34300 | .34250 | .34850 | 783.50000 |
| 1.050 | 17.239 | -1.81020 | 2041.89999 | .33630 | .33650 | .33580 | .33570 | .33570 | .33680 | .34380 | 784.00000 |
| 1.043 | 21.584 | -1.80440 | 2042.60001 | .32330 | .32340 | .32300 | .32340 | .32440 | .32440 | .32750 | 781.50000 |
| 1.040 | 26.791 | -1.80950 | 2044.00000 | .30640 | .30650 | .30650 | .30530 | .30670 | .30610 | .32750 | 779.50000 |
| | GRADIENT | .00802 | -.16714 | .00064 | .00048 | .00021 | -.00043 | .00005 | .00053 | .00193 | .28372 |

RUN NO. 132/ 0 F/V/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | Fj | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | D(PST) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.098 | .083 | -1.90410 | 2011.50000 | .33700 | .33780 | .33620 | .33530 | .33720 | .3365 | .32970 | 796.50000 |
| 1.100 | 4.280 | -1.87710 | 2010.80000 | .33530 | .33560 | .33520 | .33520 | .33560 | .33500 | .32970 | 797.00000 |
| 1.095 | 8.583 | -1.85940 | 2012.20000 | .33310 | .33330 | .33330 | .33340 | .33330 | .33340 | .32970 | 797.50000 |
| 1.097 | 10.715 | -1.83530 | 2012.89999 | .33110 | .33120 | .33120 | .33110 | .33120 | .33120 | .32970 | 797.50000 |
| 1.098 | 12.868 | -1.81310 | 2012.20000 | .32780 | .32780 | .32780 | .32780 | .32780 | .32770 | .32970 | 797.50000 |
| 1.098 | 15.033 | -1.80110 | 2012.20000 | .31930 | .31970 | .31980 | .31970 | .31980 | .31930 | .32970 | 797.50000 |
| 1.095 | 17.250 | -1.82310 | 2011.50000 | .31710 | .31710 | .31710 | .31610 | .31610 | .31530 | .32970 | 797.50000 |
| 1.096 | 21.582 | -1.81180 | 2015.00000 | .30300 | .30360 | .30360 | .30300 | .30290 | .30240 | .32970 | 797.50000 |
| | GRADIENT | .00643 | -.16680 | -.00041 | -.00035 | -.00039 | -.00041 | -.00041 | -.00045 | .00117 | .16581 |

RUN NO. 137/ 0 F/V/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | D(PST) |
|-------|----------|----------|------------|---------|---------|--------|---------|---------|---------|--------|-----------|
| 1.149 | .080 | -1.90860 | 2001.60001 | .31240 | .31200 | .31360 | .31190 | .31250 | .31350 | .30650 | 813.75000 |
| 1.151 | 4.258 | -1.86440 | 2006.50000 | .31580 | .31540 | .31540 | .31570 | .31590 | .31550 | .30650 | 814.25000 |
| 1.145 | 8.543 | -1.85250 | 2005.10001 | .31650 | .31600 | .31650 | .31620 | .31650 | .31620 | .30650 | 814.75000 |
| 1.147 | 10.708 | -1.83770 | 2005.10001 | .31700 | .31650 | .31650 | .31650 | .31650 | .31650 | .30650 | 815.25000 |
| 1.147 | 12.864 | -1.82780 | 2005.10001 | .30170 | .30170 | .30170 | .30170 | .30170 | .30170 | .30650 | 815.75000 |
| 1.148 | 15.024 | -1.81340 | 2005.10001 | .29480 | .29480 | .29480 | .29370 | .29370 | .29370 | .30650 | 816.25000 |
| 1.149 | 17.239 | -1.81220 | 2004.39999 | .29240 | .29240 | .29240 | .29240 | .29240 | .29240 | .30650 | 816.75000 |
| 1.147 | 21.570 | -1.80860 | 2007.99999 | .28470 | .28470 | .28470 | .28470 | .28470 | .28470 | .30650 | 817.25000 |
| | GRADIENT | .01067 | 1.17268 | -.00134 | -.00134 | .00149 | -.00124 | -.00124 | -.00124 | .00155 | .16581 |

(BE7R09) (02 AUG 78)

TABLATED DATA - QAI61 (ARC 11-87-87-094)

ARC 11-87-87-094 QAI61 ORBITER + TUFTS

REFERENCE DATA

SREF = 250.0000 SQ.FT. XMRP = 1078.6888 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RUN NO. 142/ 0 R/V/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

Table with columns: MACH, ALPHA, BETA, PT, PT1/PT, PT2/PT, PT3/PT, PT4/PT, PT5/PT, PT6/PT, PT7/PT, O(PSE). Rows 1-189.

RUN NO. 143/ 0 R/V/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

Table with columns: MACH, ALPHA, BETA, PT, PT1/PT, PT2/PT, PT3/PT, PT4/PT, PT5/PT, PT6/PT, PT7/PT, O(PSE). Rows 1-293.

RUN NO. 152/ 0 R/V/L = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

Table with columns: MACH, ALPHA, BETA, PT, PT1/PT, PT2/PT, PT3/PT, PT4/PT, PT5/PT, PT6/PT, PT7/PT, O(PSE). Rows 1-395.

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BFLAP = -7.178

TABLATED DATA - 0A161 (ARC 11-97-87-09*)
 ARC 11-97-87-09* 0A161 ORBITER + TUETS

(BE7R10) (02 AUG 76)

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.170

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|----------|--------|------------|---------|--------|--------|--------|--------|---------|--------|-----------|
| .595 | .098 | .16020 | 2597.39999 | .74780 | .74780 | .74790 | .74790 | .74780 | .74830 | .74370 | 505.68000 |
| .596 | 2.126 | .19890 | 2592.10001 | .74710 | .74710 | .74690 | .74800 | .74810 | .74750 | .74510 | 506.48000 |
| .596 | 4.182 | .19990 | 2592.10001 | .74730 | .74840 | .74840 | .74790 | .74790 | .74760 | .74670 | 506.48000 |
| .596 | 6.250 | .21090 | 2592.89999 | .74740 | .74660 | .74760 | .74700 | .74740 | .74730 | .74720 | 507.09000 |
| .596 | 8.341 | .21520 | 2593.60001 | .74810 | .74750 | .74750 | .74750 | .74720 | .74740 | .74740 | 507.09000 |
| .596 | 10.438 | .21610 | 2593.60001 | .74620 | .74620 | .74670 | .74720 | .74720 | .74650 | .74690 | 507.09000 |
| .596 | 12.529 | .21310 | 2593.60001 | .74570 | .74630 | .74620 | .74580 | .74720 | .74570 | .74570 | 507.09000 |
| .596 | 14.686 | .22906 | 2593.60001 | .74450 | .74340 | .74420 | .74380 | .74380 | .74380 | .74320 | 507.09000 |
| .598 | 16.765 | .22386 | 2594.29999 | .74120 | .74110 | .74160 | .74090 | .74360 | .73720 | .74110 | 507.10000 |
| .596 | 18.882 | .22350 | 2594.29999 | .73680 | .73720 | .73750 | .73640 | .73630 | .73190 | .73750 | 505.94000 |
| .595 | 26.993 | .21450 | 2594.29999 | .73400 | .73336 | .73210 | .73270 | .73190 | .71700 | .72820 | 506.53000 |
| .595 | 28.179 | .21520 | 2595.00000 | .71630 | .71630 | .71630 | .71700 | .71780 | .71700 | .71700 | 506.53000 |
| | GRADIENT | .00970 | 17097 | -.00027 | .00015 | .00012 | .00005 | .00002 | -.00017 | .00073 | .14655 |

RUN NO. 977 0 RVAL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 1024 0 RVAL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|----------|--------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| .798 | .075 | .15930 | 2198.20001 | .59760 | .59810 | .59900 | .59970 | .60020 | .60120 | .60240 | 643.76000 |
| .799 | 2.126 | .20280 | 2198.89999 | .59380 | .59420 | .59380 | .59520 | .59440 | .59380 | .74040 | 645.25000 |
| .798 | 4.213 | .20270 | 2197.50000 | .59680 | .59680 | .59600 | .59660 | .59620 | .59650 | .67830 | 643.72000 |
| .797 | 6.317 | .21180 | 2197.50000 | .59710 | .59570 | .59520 | .59810 | .59720 | .59700 | .64320 | 642.75000 |
| .97 | 8.434 | .21790 | 2198.20001 | .59540 | .59510 | .59410 | .59370 | .59360 | .59540 | .62250 | 642.79000 |
| .98 | 10.548 | .21480 | 2198.20001 | .59560 | .59410 | .59400 | .59420 | .59350 | .59350 | .61030 | 643.76000 |
| .97 | 12.656 | .21040 | 2198.20001 | .59090 | .58990 | .59110 | .59150 | .59240 | .59230 | .60190 | 643.27000 |
| .97 | 14.791 | .22530 | 2198.20001 | .58820 | .58970 | .58650 | .5870 | .57980 | .58940 | .59560 | 642.79000 |
| .98 | 16.929 | .22020 | 2197.50000 | .57860 | .57820 | .57800 | .57870 | .57980 | .57880 | .58940 | 644.20000 |
| .97 | 19.048 | .22760 | 2198.20001 | .57460 | .57460 | .57440 | .57370 | .57640 | .57610 | .58350 | 642.79000 |
| .98 | 21.189 | .22190 | 2198.20001 | .56600 | .56550 | .56950 | .56650 | .56640 | .56620 | .57750 | 643.76000 |
| .799 | 26.337 | .22608 | 2230.70001 | .52530 | .52310 | .52490 | .52490 | .52440 | .52480 | .55080 | 654.83000 |
| | GRADIENT | .01046 | 17058 | -.00019 | -.00031 | -.00072 | -.00039 | -.00096 | -.00113 | -.04204 | -.01172 |

(BE7R10) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-87-87-094)

ARC 11-97-87-084 0A181 ORBILIER + TUETS

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 EDFLAP = -7.170

REFERENCE DATA
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 108/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .848 | .044 | .17630 | 2174.89999 | .55630 | .55623 | .55550 | .55450 | .55520 | .55600 | .54550 | 683.85000 |
| .849 | 2.131 | .20790 | 2175.20001 | .55560 | .55531 | .55660 | .55670 | .55720 | .55080 | .55080 | 685.53000 |
| .849 | 4.228 | .19870 | 2176.29998 | .55770 | .55820 | .55820 | .55690 | .55790 | .55760 | .55290 | 685.58000 |
| .848 | 6.330 | .20750 | 2177.00000 | .55780 | .55720 | .55750 | .55830 | .55750 | .55790 | .55970 | 684.71000 |
| .848 | 8.444 | .21970 | 2177.70001 | .55560 | .55410 | .55480 | .55450 | .55450 | .55450 | .55520 | 684.76000 |
| .847 | 10.570 | .21940 | 2177.00000 | .55531 | .55480 | .55480 | .55480 | .55480 | .55520 | .55520 | 683.80000 |
| .848 | 12.688 | .21300 | 2177.70001 | .54990 | .54930 | .54950 | .54900 | .54760 | .54760 | .55250 | 685.22000 |
| .847 | 14.821 | .22200 | 2177.70001 | .54440 | .54400 | .54510 | .54470 | .54330 | .54330 | .54630 | 683.85000 |
| .848 | 16.957 | .22560 | 2177.70001 | .53910 | .53920 | .53950 | .53950 | .53880 | .53780 | .54368 | 685.22000 |
| .847 | 19.103 | .21920 | 2177.70001 | .53090 | .53170 | .53250 | .53200 | .53040 | .53040 | .53740 | 684.31000 |
| .847 | 21.243 | .21650 | 2177.70001 | .52220 | .52090 | .52090 | .51960 | .52010 | .52220 | .53730 | 684.31000 |
| .845 | 26.397 | .21390 | 2177.70001 | .48020 | .47960 | .48070 | .47890 | .47850 | .47980 | .51010 | 682.46000 |
| | GRADIENT | .00635 | .33463 | .00034 | .00048 | .00062 | .00057 | .00038 | .80038 | .00177 | .46103 |

RUN NO. 113/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .898 | .073 | .15830 | 2104.10001 | .51800 | .51780 | .51820 | .51790 | .51790 | .51790 | .50180 | 703.39000 |
| .903 | 2.153 | .20200 | 2105.20001 | .51940 | .51840 | .51900 | .51910 | .51810 | .51800 | .50840 | 708.64000 |
| .900 | 4.253 | .20980 | 2105.50000 | .51950 | .51860 | .51860 | .51760 | .51730 | .51770 | .51230 | 705.66000 |
| .898 | 6.354 | .21190 | 2105.50000 | .52040 | .52140 | .52040 | .52030 | .52160 | .52190 | .51620 | 704.37000 |
| .898 | 8.469 | .21820 | 2105.20000 | .51990 | .52041 | .51810 | .51770 | .51690 | .51900 | .51800 | 704.86000 |
| .898 | 10.599 | .23100 | 2105.50000 | .51570 | .51690 | .51930 | .51530 | .51690 | .51610 | .51770 | 704.90000 |
| .898 | 12.723 | .22390 | 2105.50000 | .51070 | .50970 | .51010 | .50910 | .50910 | .50910 | .51440 | 704.37000 |
| .898 | 14.862 | .22960 | 2105.20001 | .50390 | .50540 | .50390 | .50390 | .50360 | .50440 | .50910 | 704.37000 |
| .898 | 17.003 | .22060 | 2105.50000 | .49440 | .49780 | .49520 | .49500 | .49270 | .48280 | .50180 | 702.63000 |
| .896 | 19.111 | .22030 | 2105.50000 | .48870 | .48690 | .48630 | .48850 | .48940 | .48620 | .49540 | 702.20000 |
| .895 | 21.271 | .21650 | 2105.50000 | .47480 | .47320 | .47290 | .47320 | .47190 | .47200 | .48440 | 702.20000 |
| .902 | 26.462 | .21060 | 2104.79999 | .43370 | .43290 | .43270 | .42960 | .42790 | .42950 | .45180 | 706.85000 |
| | GRADIENT | .01231 | .33381 | .00036 | .00019 | .00014 | .00007 | .00014 | .00005 | .00251 | .54211 |

(BE7R10) (02 AUG 76)

TABULATED DATA - OAI61 (ARC 11-97-87-094)
ARC 11-97-87-094 OAI61 ORBITER + TUFTS

PARAMETRIC DATA

BETA = .000
ALFRON = .000
ELEVON = .000
BOFLAP = -7.170

REFERENCE DATA:

SREF = 2690.0000 SQ.FT.
LREF = 474.8000 IN.
BREF = 936.6800 IN.
SCALE = .0300
XMRP = 1076.6870 IN. X0
YMRP = .0000 IN. Y0
ZMRP = 379.0000 IN. Z0

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|------|----------|--------|--------|--------|--------|--------|--------|--------|--------|------------|
| .947 | .072 | .15090 | .46890 | .47040 | .47100 | .47100 | .47100 | .47100 | .45390 | .730.76000 |
| .946 | .2.199 | .20240 | .46940 | .47050 | .46990 | .47050 | .46990 | .46930 | .46110 | .731.06000 |
| .947 | .4.268 | .20540 | .47160 | .47050 | .47390 | .47150 | .47130 | .47150 | .46500 | .731.77000 |
| .944 | .6.383 | .21550 | .47330 | .47470 | .47260 | .47390 | .47130 | .47130 | .46640 | .729.07000 |
| .944 | .8.520 | .22760 | .47190 | .47370 | .47230 | .47230 | .47070 | .46570 | .46640 | .729.93000 |
| .946 | .10.660 | .22570 | .46820 | .46770 | .46830 | .46750 | .46520 | .46570 | .46260 | .730.54000 |
| .946 | .12.786 | .21940 | .45840 | .45880 | .45850 | .45480 | .45750 | .45800 | .45590 | .732.24000 |
| .946 | .14.937 | .21660 | .44940 | .44980 | .44840 | .44660 | .44760 | .44650 | .44690 | .731.39000 |
| .947 | .17.087 | .20400 | .44160 | .44210 | .44190 | .43440 | .44160 | .43990 | .44140 | .727.52000 |
| .942 | .19.246 | .20180 | .43760 | .43760 | .43700 | .43440 | .43120 | .42470 | .43400 | .727.60000 |
| .941 | .21.355 | .21670 | .42190 | .42190 | .42390 | .42240 | .42470 | .39050 | .41490 | .726.12000 |
| .939 | .26.554 | .20570 | .39110 | .39110 | .39230 | .39350 | .39150 | .39050 | .40264 | .726.24083 |
| | GRADIENT | .01299 | .00096 | .00026 | .00092 | .00074 | .00087 | .00012 | | |

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|------|----------|--------|--------|---------|---------|--------|---------|---------|--------|------------|
| .982 | .054 | .18010 | .42550 | .42670 | .42830 | .42660 | .42780 | .42690 | .41100 | .751.92000 |
| .979 | .2.174 | .18210 | .42920 | .42890 | .42870 | .42910 | .42950 | .43160 | .40240 | .746.89000 |
| .981 | .4.272 | .20400 | .42680 | .42650 | .42580 | .42680 | .42460 | .42680 | .41820 | .751.55000 |
| .978 | .6.397 | .21670 | .42470 | .42490 | .42510 | .42490 | .42520 | .42440 | .41960 | .751.72000 |
| .979 | .8.547 | .22430 | .42170 | .42000 | .42190 | .42160 | .42150 | .42150 | .42030 | .749.78000 |
| .979 | .10.704 | .21760 | .41700 | .42000 | .41680 | .41660 | .41830 | .41650 | .41980 | .750.15000 |
| .979 | .12.846 | .21910 | .41410 | .41350 | .41570 | .41458 | .41648 | .41420 | .41670 | .750.52000 |
| .979 | .14.998 | .22760 | .40560 | .40400 | .40250 | .40340 | .40340 | .40280 | .41050 | .750.15000 |
| .980 | .17.163 | .24930 | .39650 | .39760 | .39800 | .39758 | .39860 | .40010 | .40520 | .751.26000 |
| .983 | .19.308 | .22250 | .39370 | .39370 | .39300 | .39200 | .39080 | .39080 | .39850 | .753.83000 |
| .978 | .21.455 | .20700 | .38640 | .38600 | .39000 | .38780 | .38780 | .38710 | .39400 | .750.32000 |
| .975 | .26.637 | .20650 | .35960 | .35750 | .35660 | .35770 | .35700 | .35840 | .37860 | .747.07000 |
| | GRADIENT | .00566 | .00012 | -.00005 | -.00059 | .00015 | -.00076 | -.00002 | .00170 | .708835 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

(BETRI0) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ATLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 128/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|--------|------------|--------|--------|--------|--------|--------|--------|-----------|
| 1.049 | .082 | .15690 | 2040.50000 | .36030 | .36000 | .35990 | .35100 | .35970 | .34980 | 783.21000 |
| 1.054 | 2.171 | .19930 | 2041.20000 | .36070 | .36090 | .36060 | .35970 | .35070 | .35480 | 786.46000 |
| 1.059 | 4.287 | .19880 | 2041.20000 | .36260 | .36300 | .36300 | .36300 | .36420 | .35860 | 785.64000 |
| 1.059 | 6.412 | .21610 | 2043.30000 | .36260 | .36970 | .36110 | .35990 | .36020 | .35940 | 785.24000 |
| 1.049 | 8.565 | .21860 | 2040.50000 | .36310 | .36240 | .36420 | .36240 | .36240 | .36110 | 783.21000 |
| 1.048 | 10.722 | .22270 | 2041.89999 | .36710 | .35540 | .35710 | .35630 | .35770 | .35910 | 783.44000 |
| 1.049 | 12.869 | .22270 | 2041.89999 | .35080 | .35090 | .35150 | .35070 | .35040 | .35500 | 783.75000 |
| 1.049 | 15.098 | .22220 | 2041.20000 | .34420 | .34480 | .34370 | .34380 | .34340 | .34670 | 783.32000 |
| 1.049 | 17.215 | .21950 | 2041.20000 | .34190 | .34140 | .34160 | .34100 | .34140 | .34260 | 782.49000 |
| 1.046 | 19.379 | .22130 | 2041.89999 | .33990 | .33910 | .33970 | .33810 | .33830 | .34060 | 780.90000 |
| 1.043 | 21.531 | .20930 | 2041.89999 | .33880 | .33800 | .33740 | .33710 | .33700 | .34060 | 780.90000 |
| 1.041 | 25.752 | .21260 | 2043.30000 | .30980 | .30996 | .30950 | .30950 | .30930 | .32650 | 780.16000 |
| | GRADIENT | .00947 | .16610 | .00055 | .00048 | .00074 | .00048 | .00107 | .00209 | .09816 |

RUN NO. 133/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|--------|------------|--------|--------|--------|--------|--------|--------|-----------|
| 1.087 | .074 | .16790 | 2040.80000 | .33840 | .33850 | .33820 | .33840 | .33860 | .32480 | 796.24000 |
| 1.106 | 2.162 | .19230 | 2010.80000 | .33840 | .33760 | .33790 | .33820 | .33820 | .33000 | 797.63000 |
| 1.097 | 4.291 | .20960 | 2011.50000 | .33717 | .33700 | .33710 | .33720 | .33700 | .33340 | 796.65000 |
| 1.098 | 6.412 | .21770 | 2012.20000 | .33630 | .33680 | .33650 | .33640 | .33630 | .33420 | 797.34000 |
| 1.096 | 8.568 | .22720 | 2012.50000 | .33520 | .33580 | .33520 | .33500 | .33510 | .33550 | 796.09000 |
| 1.087 | 10.728 | .22130 | 2011.50000 | .33370 | .33370 | .33350 | .33370 | .33370 | .33400 | 796.91000 |
| 1.097 | 12.880 | .21720 | 2011.50000 | .32970 | .32990 | .33010 | .33010 | .32980 | .33180 | 795.37000 |
| 1.097 | 15.060 | .22540 | 2012.89999 | .32260 | .32260 | .32260 | .32220 | .32290 | .32790 | 796.91000 |
| 1.097 | 17.236 | .21250 | 2012.20000 | .32000 | .31910 | .31830 | .31930 | .31760 | .32440 | 796.78000 |
| 1.099 | 19.387 | .21480 | 2013.60000 | .31350 | .31410 | .31440 | .31450 | .31410 | .31940 | 798.44000 |
| 1.099 | 21.529 | .20220 | 2012.89999 | .30850 | .30850 | .30810 | .30840 | .30790 | .31460 | 795.51000 |
| 1.094 | 25.781 | .20810 | 2015.70000 | .28910 | .28920 | .28940 | .28940 | .28940 | .30370 | 797.72000 |
| 1.096 | GRADIENT | .00688 | .16549 | .00038 | .00036 | .00056 | .00038 | .00038 | .00204 | .09543 |

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(BETRI0) (02 AUG 76)

TABULATED DATA - OALIEI (ARC 11-97-87-094)
 ARC 11-97-87-094 OALIST ORBITER + TUFTS

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YQ
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
 SCALE = .0300

RUN NO. 136/ 0 RNL = 4.25 GRADIENT INTERVAL = -5.08/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSSF) |
|-------|----------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.147 | .067 | 14.780 | 2001.60001 | .31530 | .31310 | .31990 | .31400 | .31610 | .31410 | .30420 | 813.75000 |
| 1.151 | 2.156 | 20310 | 2003.70000 | .31240 | .31250 | .31130 | .31091 | .31050 | .30980 | .30720 | 816.31000 |
| 1.150 | 4.271 | 20080 | 2003.70000 | .31230 | .31050 | .30980 | .30980 | .31020 | .31030 | .30880 | 815.88000 |
| 1.148 | 6.393 | 20500 | 2005.10001 | .31020 | .31030 | .30920 | .30960 | .30990 | .31090 | .30920 | 815.71000 |
| 1.147 | 8.581 | 22340 | 2005.80000 | .31340 | .31190 | .31070 | .30980 | .30910 | .30980 | .30940 | 815.63000 |
| 1.147 | 10.716 | 29100 | 2005.10001 | .30810 | .30750 | .30810 | .30570 | .30560 | .30460 | .30790 | 815.24000 |
| 1.147 | 12.874 | 21780 | 2005.10001 | .30270 | .38150 | .30090 | .30340 | .30240 | .30240 | .30650 | 815.24000 |
| 1.148 | 15.036 | 22550 | 2004.39999 | .30020 | .30000 | .29850 | .29780 | .29680 | .29680 | .29830 | 815.87000 |
| 1.148 | 17.208 | 21400 | 2005.80000 | .29520 | .29370 | .29290 | .29340 | .29180 | .29830 | .29370 | 814.19000 |
| 1.144 | 19.388 | 21970 | 2005.80000 | .29010 | .29100 | .28950 | .28940 | .28910 | .28820 | .29020 | 815.70000 |
| 1.146 | 21.543 | 20910 | 2007.20000 | .28400 | .28440 | .28450 | .28650 | .28590 | .28620 | .28160 | 816.95000 |
| 1.145 | 26.783 | 20400 | 2010.80000 | .27150 | .27060 | .27070 | .27040 | .27020 | .27030 | .28160 | 816.95000 |
| 1.145 | GRADIENT | .01257 | .49811 | -.00071 | -.00060 | -.00121 | -.00100 | -.00140 | -.00090 | .00109 | .50489 |

RUN NO. 143/ 0 RNL = 4.24 GRADIENT INTERVAL = -5.08/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSSF) |
|-------|----------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.197 | .071 | 15820 | 1997.30000 | .28340 | .28290 | .28310 | .28280 | .28310 | .28340 | .27390 | 829.35000 |
| 1.201 | 2.190 | 19470 | 2000.20000 | .28090 | .28200 | .28200 | .28230 | .28290 | .28270 | .27770 | 831.63000 |
| 1.199 | 4.266 | 20860 | 1998.70000 | .28260 | .28200 | .28230 | .28270 | .28330 | .28280 | .28020 | 830.59000 |
| 1.196 | 6.392 | 21920 | 1998.70000 | .28250 | .28340 | .28300 | .28270 | .28330 | .28330 | .28160 | 829.51000 |
| 1.196 | 8.558 | 22850 | 2000.20000 | .28058 | .28060 | .28100 | .27970 | .28090 | .28040 | .28120 | 830.26000 |
| 1.195 | 10.718 | 23860 | 1995.89999 | .28240 | .28140 | .28100 | .28050 | .28010 | .28050 | .48120 | 828.00000 |
| 1.194 | 12.869 | 24490 | 1993.60001 | .27700 | .27640 | .27570 | .27570 | .27530 | .27520 | .39300 | 826.70000 |
| 1.195 | 15.039 | 20830 | 1998.00000 | .26920 | .26750 | .26820 | .26810 | .26740 | .26950 | .33920 | 829.13000 |
| 1.196 | 17.233 | 20830 | 2002.30000 | .26130 | .26120 | .26140 | .26090 | .26150 | .26090 | .30950 | 830.99000 |
| 1.193 | 19.397 | 20660 | 1998.00000 | .26010 | .26020 | .26190 | .26130 | .26150 | .25990 | .28700 | 828.33000 |
| 1.189 | 21.496 | 19810 | 1995.20000 | .25190 | .26190 | .26200 | .26140 | .26070 | .25970 | .27600 | 825.81000 |
| 1.187 | 26.773 | 19250 | 2003.70000 | .25190 | .25160 | .25100 | .25100 | .25200 | .25200 | .26570 | 826.71000 |
| 1.187 | GRADIENT | .01200 | .33070 | -.00019 | -.00012 | -.00019 | -.00002 | -.00005 | -.00014 | .00150 | .31722 |

TABULATED DATA - 0A161 (ARC 11-97-87-09H)

ARC 11-97-87-09H 0A161 ORBITER + TUFITS

REFERENCE DATA

SRCF = 2690.0000 SQ.FT. XNFP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YNRP = .0000 IN. YO
 BREF = 936.6800 IN. ZNRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AIRCRN = .000 80FLAP = -7.170

PARAMETRIC DATA

RUN NO. 149/ 0 RNL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|-------|----------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.297 | .055 | 1.7530 | 2002.30000 | .23620 | .23630 | .23600 | .23560 | .23630 | .23630 | .22930 | 854.38000 |
| 1.300 | 2.125 | 2.2590 | 2005.80000 | .23560 | .23610 | .23540 | .23500 | .23590 | .23680 | .23210 | 856.23000 |
| 1.299 | 4.238 | 1.8790 | 2004.39999 | .23490 | .23490 | .23480 | .23520 | .23430 | .23370 | .23370 | 856.64000 |
| 1.297 | 6.361 | 2.1120 | 2004.39999 | .23470 | .23470 | .23470 | .23540 | .23490 | .23420 | .23420 | 856.29000 |
| 1.297 | 8.515 | 2.1300 | 2003.10001 | .23310 | .23210 | .23280 | .23280 | .23280 | .23250 | .23350 | 855.54000 |
| 1.295 | 10.624 | 2.1010 | 2003.39999 | .23070 | .23160 | .23140 | .23160 | .23150 | .23170 | .23280 | 855.06000 |
| 1.293 | 12.835 | 2.2300 | 2005.10001 | .23030 | .22980 | .22930 | .23020 | .23030 | .22920 | .23140 | 855.74000 |
| 1.296 | 14.992 | 2.2910 | 2005.80000 | .22360 | .22350 | .22330 | .22340 | .22350 | .22350 | .22370 | 855.58000 |
| 1.296 | 17.160 | 2.2930 | 2005.10001 | .21750 | .21750 | .21750 | .21780 | .21770 | .21750 | .22120 | 855.06000 |
| 1.293 | 19.313 | 2.2130 | 2005.10001 | .21760 | .21680 | .21760 | .21780 | .21700 | .21740 | .21980 | 855.97000 |
| 1.295 | 21.466 | 2.1070 | 2006.50000 | .21710 | .21680 | .21670 | .21710 | .21700 | .21710 | .21390 | 856.77000 |
| 1.291 | 25.768 | 2.1870 | 2010.10001 | .20750 | .20680 | .20750 | .20750 | .20730 | .20750 | .00105 | 856.77000 |
| | GRADIENT | .00294 | .43801 | -.00026 | -.00034 | -.00029 | -.00010 | -.00048 | -.00014 | | 23905 |

RUN NO. 153/ 0 RNL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|-------|----------|--------|------------|--------|---------|--------|--------|--------|--------|--------|-----------|
| 1.402 | .032 | 1.7590 | 2049.70000 | .19640 | .19670 | .19690 | .19690 | .19690 | .19650 | .19000 | 883.42000 |
| 1.405 | 2.111 | 2.6260 | 2049.70001 | .19640 | .19650 | .19650 | .19650 | .19710 | .19640 | .19270 | 883.77000 |
| 1.402 | 4.222 | 2.3440 | 2049.00000 | .19690 | .19650 | .19700 | .19740 | .19700 | .19700 | .19480 | 883.42000 |
| 1.402 | 6.341 | 2.1140 | 2049.70001 | .19600 | .19610 | .19600 | .19590 | .19570 | .19630 | .19550 | 883.76000 |
| 1.399 | 8.499 | 2.3550 | 2049.70001 | .19470 | .19440 | .19460 | .19390 | .19370 | .19410 | .19480 | 883.68000 |
| 1.398 | 10.653 | 2.2280 | 2049.29999 | .19350 | .19300 | .19350 | .19340 | .19350 | .19340 | .19410 | 883.04000 |
| 1.403 | 12.813 | 2.0760 | 2048.29999 | .19070 | .19040 | .19070 | .19040 | .19040 | .19070 | .19250 | 883.98000 |
| 1.399 | 14.960 | 2.2760 | 2047.50000 | .18950 | .18940 | .18920 | .18940 | .18860 | .18770 | .19050 | 882.76000 |
| 1.399 | 17.125 | 2.2820 | 2048.29999 | .18590 | .18550 | .18530 | .18590 | .18560 | .18690 | .18840 | 883.06000 |
| 1.396 | 19.280 | 2.3000 | 2048.29999 | .18590 | .18570 | .18510 | .18590 | .18550 | .18660 | .18720 | 883.00000 |
| 1.395 | 21.433 | 1.9440 | 2048.29999 | .18580 | .18540 | .18510 | .18510 | .18510 | .18620 | .18650 | 882.99000 |
| 1.398 | 26.743 | 1.9990 | 2047.50000 | .17380 | .17420 | .17520 | .17400 | .17370 | .17470 | .18110 | 882.75000 |
| | GRADIENT | .02342 | -.00085 | .00012 | -.00005 | .00005 | .00012 | .00002 | .00012 | .00115 | 29044 |

(BE7R11) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-084)
ARC 11-97-87-084 OA161 ORBITER + TUFTS

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.8800 IN. XQ.
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.8800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RUN NO. 967 0 RVAL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|------|----------|---------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .594 | .092 | 2.28710 | 2590.70001 | .74860 | .74770 | .74810 | .74810 | .74820 | .74850 | .74850 | 504.13000 |
| .595 | 4.193 | 2.29470 | 2591.39999 | .74770 | .74730 | .74690 | .74800 | .74740 | .74740 | .74570 | 505.88000 |
| .594 | 8.365 | 2.30970 | 2592.40001 | .74730 | .74790 | .74740 | .74780 | .74760 | .74770 | .74650 | 504.15000 |
| .595 | 10.469 | 2.32010 | 2592.89999 | .74750 | .74720 | .74770 | .74690 | .74720 | .74670 | .74720 | 506.49000 |
| .594 | 12.682 | 2.30830 | 2593.60001 | .74570 | .74590 | .74550 | .74590 | .74620 | .74580 | .74570 | 505.93000 |
| .595 | 14.765 | 2.29170 | 2594.29999 | .74430 | .74420 | .74450 | .74420 | .74420 | .74490 | .74590 | 505.94000 |
| .594 | 16.896 | 2.29100 | 2594.29999 | .73970 | .74420 | .74000 | .74010 | .74000 | .74010 | .74350 | 505.94000 |
| .595 | 21.095 | 2.27770 | 2594.29999 | .73410 | .73250 | .73320 | .73430 | .73430 | .73180 | .73820 | 504.77000 |
| .594 | GRADIENT | .01160 | .17064 | -.00012 | -.00014 | -.00037 | -.00012 | -.00012 | -.00020 | .00029 | .42662 |

RUN NO. 1037 0 RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | RT | RT1/RT | RT2/RT | RT3/RT | RT4/RT | RT5/RT | RT6/RT | RT7/RT | Q1PSF1 |
|------|----------|---------|------------|---------|---------|--------|---------|---------|---------|--------|-----------|
| .737 | .060 | 2.26270 | 2827.20001 | .59600 | .59520 | .59520 | .59670 | .59620 | .59620 | .57220 | 651.24000 |
| .799 | 4.231 | 2.30980 | 2829.29999 | .58550 | .59510 | .59590 | .59630 | .59540 | .59540 | .58170 | 654.26000 |
| .797 | 8.484 | 2.31870 | 2830.70001 | .59460 | .59520 | .59380 | .59270 | .59270 | .58660 | .58660 | 652.41000 |
| .799 | 10.580 | 2.32860 | 2830.70001 | .59170 | .59230 | .59460 | .59410 | .59340 | .59260 | .58910 | 654.35000 |
| .797 | 12.744 | 2.31280 | 2830.70001 | .58080 | .59140 | .59130 | .59220 | .59100 | .59330 | .59070 | 652.89000 |
| .799 | 14.891 | 2.32340 | 2831.39999 | .58500 | .58380 | .58430 | .58560 | .58540 | .58560 | .58870 | 653.42000 |
| .797 | 17.061 | 2.33640 | 2830.70001 | .57890 | .57860 | .57860 | .57810 | .57820 | .58050 | .58940 | 652.41000 |
| .794 | 21.893 | 2.31750 | 2831.39999 | .56970 | .58790 | .56940 | .57060 | .57030 | .57030 | .57860 | 649.53000 |
| .794 | GRADIENT | .01129 | .50347 | -.00014 | -.00014 | .00017 | -.00095 | -.00019 | -.00019 | .00228 | .72406 |

RUN NO. 1074 0 RVAL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .843 | .046 | 2.28440 | 2174.89999 | .55460 | .55500 | .55540 | .55670 | .55720 | .55630 | .54590 | 685.02000 |
| .849 | 4.243 | 2.30530 | 2175.60001 | .55780 | .55690 | .55710 | .55680 | .55720 | .55790 | .55190 | 684.61000 |
| .847 | 8.477 | 2.31200 | 2177.00000 | .55760 | .55680 | .55800 | .55830 | .55750 | .55700 | .55450 | 684.26000 |
| .847 | 10.598 | 2.31800 | 2177.00000 | .55340 | .55340 | .55520 | .55580 | .55450 | .55440 | .55520 | 683.89000 |
| .846 | 12.762 | 2.31500 | 2177.00000 | .55140 | .55060 | .55240 | .55090 | .55090 | .55020 | .55200 | 682.89000 |
| .846 | 14.906 | 2.32240 | 2177.00000 | .54490 | .54460 | .54570 | .54240 | .54240 | .54280 | .54480 | 683.35000 |
| .847 | 17.084 | 2.33130 | 2177.00000 | .53910 | .53910 | .53920 | .53650 | .53710 | .53760 | .54480 | 683.35000 |
| .845 | 21.335 | 2.30840 | 2177.70001 | .52310 | .52600 | .52270 | .52300 | .52100 | .52160 | .53480 | 682.02000 |
| .845 | GRADIENT | .00498 | .16672 | .00076 | .00045 | .00040 | .00092 | .00010 | .00038 | .00133 | .09764 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

(BETR11) (02 AUG 76)

REFERENCE DATA:

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 47.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 ATLRON = .000 BDFLAP = -7.170

RUN NO. 114/ 0. RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|--------|---------|--------|--------|--------|--------|--------|-----------|
| .899 | .074 | 2.27510 | 2114.00000 | .51870 | .52110 | .51950 | .51980 | .51910 | .51920 | .48100 | 708.11000 |
| .898 | 4.256 | 2.31300 | 2115.89999 | .51970 | .52040 | .52030 | .52000 | .52040 | .52040 | .49750 | 708.35000 |
| .900 | 8.498 | 2.32430 | 2118.70001 | .51870 | .51930 | .51960 | .51740 | .51660 | .51930 | .50520 | 710.76000 |
| .829 | 10.620 | 2.33320 | 2117.60001 | .51450 | .51550 | .51550 | .51480 | .51460 | .51460 | .50880 | 708.65000 |
| .895 | 12.779 | 2.32260 | 2114.70000 | .51130 | .51020 | .50890 | .51100 | .51080 | .51230 | .50620 | 705.58000 |
| .902 | 14.940 | 2.33290 | 2116.89999 | .50200 | .50480 | .50480 | .50200 | .50110 | .50160 | .50280 | 710.42000 |
| .901 | 17.125 | 2.34430 | 2116.20001 | .49570 | .49710 | .49570 | .49750 | .49670 | .49960 | .47080 | 709.15000 |
| .990 | 21.376 | 2.32550 | 2116.20001 | .47570 | .47590 | .47590 | .47430 | .46910 | .47080 | .48400 | 709.15000 |
| | GRADIENT | .00906 | .89532 | .00024 | -.00017 | .00019 | .00005 | .00031 | .00029 | .00395 | .05979 |

RUN NO. 117/ 0. RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .946 | .064 | 2.24640 | 2073.00000 | .47310 | .47420 | .47370 | .47320 | .47500 | .47420 | .45590 | 728.91000 |
| .948 | 4.279 | 2.29950 | 2076.50000 | .47110 | .47100 | .46960 | .46750 | .46860 | .47020 | .46190 | 732.62000 |
| .943 | 8.532 | 2.31400 | 2075.10001 | .46940 | .47010 | .46830 | .47090 | .47250 | .47050 | .46950 | 728.61000 |
| .944 | 10.682 | 2.31880 | 2075.79999 | .45700 | .46870 | .46920 | .48000 | .46760 | .46810 | .46640 | 729.46000 |
| .944 | 12.845 | 2.29760 | 2075.10001 | .45789 | .46070 | .46168 | .46060 | .46140 | .45880 | .46170 | 729.99000 |
| .946 | 14.999 | 2.30800 | 2075.79999 | .44610 | .44950 | .44730 | .44760 | .44960 | .44580 | .45420 | 731.62000 |
| .944 | 17.290 | 2.30800 | 2074.39999 | .44270 | .44299 | .44490 | .44930 | .44350 | .44170 | .44900 | 728.53000 |
| .942 | 21.452 | 2.29270 | 2078.00000 | .42440 | .42570 | .42790 | .42880 | .42440 | .42410 | .43820 | 728.92000 |
| | GRADIENT | .01189 | .89034 | -.00042 | -.00076 | -.00097 | -.00135 | -.00152 | -.00095 | .00142 | .64293 |

RUN NO. 124/ 0. RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|---------|--------|-----------|
| .979 | .069 | 2.25750 | 2065.20001 | .42470 | .42450 | .42640 | .42590 | .42560 | .42650 | .41300 | 750.06000 |
| .980 | 4.269 | 2.31090 | 2065.89999 | .42670 | .42530 | .42710 | .42710 | .42580 | .42570 | .41720 | 750.89000 |
| .981 | 8.571 | 2.31540 | 2066.60001 | .42080 | .42110 | .41950 | .42020 | .41990 | .42020 | .41800 | 752.09000 |
| .980 | 10.729 | 2.31660 | 2066.89999 | .41610 | .41950 | .42090 | .41870 | .42110 | .42210 | .41870 | 751.26000 |
| .977 | 12.888 | 2.28810 | 2065.20001 | .41690 | .41960 | .41960 | .41840 | .41650 | .41690 | .41770 | 748.94000 |
| .982 | 15.061 | 2.33690 | 2086.60001 | .40370 | .40380 | .40300 | .40250 | .40340 | .40310 | .41100 | 752.48000 |
| .978 | 17.270 | 2.33750 | 2083.79999 | .40160 | .40210 | .40280 | .40540 | .40290 | .40220 | .40570 | 749.42000 |
| .977 | 21.553 | 2.31690 | 2068.79999 | .38130 | .38230 | .38240 | .38970 | .38370 | .38780 | .39790 | 750.12000 |
| | GRADIENT | .01266 | .16603 | .00047 | .00017 | .00017 | .00028 | .00005 | -.00019 | .00108 | .19664 |

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BRPF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BBELAP = -7.170

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|----------|--------|---------|---------|--------|--------|---------|---------|---------|--------|-----------|
| 1.051 | .073 | 2.25720 | 36350 | 36290 | 36160 | 36270 | 36330 | 36450 | 35200 | 785.32000 |
| 1.052 | 4.295 | 2.30070 | 36210 | 36320 | 36250 | 36200 | 36200 | 36250 | 35610 | 785.41000 |
| 1.047 | 8.980 | 2.31660 | 36010 | 36050 | 36010 | 36116 | 35880 | 36110 | 35820 | 781.72000 |
| 1.048 | 10.751 | 2.31570 | 35890 | 35500 | 35710 | 35750 | 35460 | 35400 | 35640 | 784.09000 |
| 1.049 | 12.921 | 2.29260 | 35110 | 34900 | 34940 | 35020 | 35800 | 35060 | 35420 | 783.95000 |
| 1.047 | 15.098 | 2.33630 | 34540 | 34340 | 34410 | 34410 | 34400 | 34290 | 34930 | 782.69000 |
| 1.048 | 17.330 | 2.33880 | 34050 | 34110 | 34030 | 34050 | 34130 | 34140 | 34470 | 783.95000 |
| 1.039 | 21.626 | 2.32360 | 34030 | 34810 | 33970 | 33940 | 33780 | 33860 | 34420 | 779.33000 |
| GRADIENT | | .01030 | -.00033 | .00009 | .00021 | -.00017 | -.00031 | -.00038 | .00057 | .08432 |

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|----------|--------|---------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.098 | .075 | 2.26190 | 33200 | 33170 | 33160 | 33220 | 33210 | 33180 | 30820 | 784.63000 |
| 1.100 | 4.298 | 2.30110 | 33080 | 33070 | 33100 | 33050 | 33090 | 33110 | 31890 | 784.92000 |
| 1.097 | 8.988 | 2.31760 | 32690 | 32660 | 32680 | 32770 | 32840 | 32810 | 32220 | 784.20000 |
| 1.098 | 10.744 | 2.31590 | 32710 | 32740 | 32740 | 32780 | 32730 | 32760 | 32470 | 784.35000 |
| 1.096 | 12.916 | 2.30300 | 32460 | 32440 | 32420 | 32440 | 32460 | 32400 | 32420 | 793.65000 |
| 1.097 | 15.106 | 2.37260 | 32250 | 32290 | 32250 | 32250 | 32250 | 32250 | 31910 | 783.72000 |
| 1.098 | 15.758 | 2.25480 | 31910 | 31930 | 32010 | 31990 | 31970 | 31940 | 32190 | 793.04000 |
| 1.097 | 17.337 | 2.35610 | 31870 | 31870 | 31860 | 31870 | 31870 | 31870 | 31890 | 784.49000 |
| 1.097 | 21.620 | 2.33180 | 30640 | 30560 | 30730 | 30720 | 30750 | 30680 | 31430 | 785.25000 |
| GRADIENT | | .08988 | -.00028 | -.00024 | -.00034 | -.00038 | -.00028 | -.00017 | .00253 | .06887 |

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|----------|--------|---------|---------|--------|--------|--------|--------|--------|---------|-----------|
| 1.150 | .067 | 2.27160 | 30940 | 30850 | 30910 | 31050 | 31150 | 31110 | 70470 | 815.72000 |
| 1.149 | 4.282 | 2.32080 | 31140 | 31140 | 31240 | 31170 | 31170 | 31130 | 53500 | 814.31000 |
| 1.147 | 8.964 | 2.32440 | 30840 | 30840 | 30720 | 30680 | 30630 | 30630 | 43690 | 815.78000 |
| 1.147 | 10.742 | 2.31890 | 30730 | 30730 | 30810 | 30800 | 30810 | 30830 | 38230 | 814.54000 |
| 1.145 | 12.911 | 2.31450 | 30340 | 30340 | 30510 | 30460 | 30460 | 30370 | 34910 | 813.04000 |
| 1.145 | 15.107 | 2.34300 | 29650 | 29630 | 29640 | 29670 | 29740 | 29740 | 32680 | 815.61000 |
| 1.147 | 17.328 | 2.35860 | 29870 | 29870 | 29710 | 29590 | 29540 | 29540 | 31450 | 815.25000 |
| 1.151 | 21.605 | 2.32600 | 28760 | 28810 | 28760 | 28750 | 28930 | 29100 | 30650 | 816.35000 |
| GRADIENT | | .01357 | -.00047 | .00069 | .00076 | .00028 | .00005 | .00005 | -.04026 | -.33454 |

TABULATED DATA - OAI61 (ARC 11-97-87-09*)
ARC 11-97-87-09* OAI61 ORBITER + TUFTS

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
A.I.L.RON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2692.000 SO. FT. XMRP = 1076.6800 IN. XO
LREF = 474.6000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | RUN NO. | 144/ 0 | RN/L | 4.23 | GRADIENT INTERVAL = | -5.00/ | 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|-------|-------|---------|------------|---------|--------|--------|--------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.194 | .061 | 2.28330 | 1997.30000 | 1474 0 | 0 | .28450 | .28420 | -5.00/ | 5.00 | .28420 | .28420 | .28420 | .28420 | .28420 | .28420 | .28420 | .27580 | 828.56000 |
| 1.200 | .078 | 2.31140 | 1999.00000 | 1474 0 | 0 | .28140 | .28190 | -5.00/ | 5.00 | .28170 | .28190 | .28190 | .28140 | .28170 | .28170 | .28170 | .27850 | 830.51000 |
| 1.193 | .090 | 2.31470 | 1993.00001 | 1474 0 | 0 | .28270 | .28220 | -5.00/ | 5.00 | .28220 | .28220 | .28220 | .28190 | .28170 | .28170 | .28170 | .27930 | 826.30000 |
| 1.194 | .107 | 2.31840 | 1993.80000 | 1474 0 | 0 | .27930 | .27900 | -5.00/ | 5.00 | .27920 | .27920 | .27920 | .27920 | .27910 | .27910 | .27910 | .27750 | 826.88000 |
| 1.193 | .125 | 2.30170 | 1999.50000 | 1474 0 | 0 | .27650 | .27730 | -5.00/ | 5.00 | .27720 | .27720 | .27720 | .27720 | .27670 | .27670 | .27670 | .27450 | 829.13000 |
| 1.195 | .142 | 2.33400 | 1995.00003 | 1474 0 | 0 | .26950 | .26920 | -5.00/ | 5.00 | .26920 | .26920 | .26920 | .26920 | .26900 | .26900 | .26900 | .26780 | 827.65000 |
| 1.193 | .160 | 2.34320 | 1995.89999 | 1474 0 | 0 | .26380 | .26330 | -5.00/ | 5.00 | .26330 | .26330 | .26330 | .26340 | .26400 | .26400 | .26400 | .26280 | 830.05000 |
| 1.195 | .178 | 2.31930 | 2000.20000 | 1474 0 | 0 | .25920 | .25920 | -5.00/ | 5.00 | .25920 | .25920 | .25920 | .25920 | .26120 | .26120 | .26120 | .26510 | 830.46200 |
| 1.195 | .195 | .00566 | .16600 | 1474 0 | 0 | .00066 | .00055 | -5.00/ | 5.00 | .00055 | .00055 | .00055 | .00066 | .00059 | .00059 | .00059 | .00064 | .00054 |

| MACH | ALPHA | BETA | PT | RUN NO. | 1474 0 | RN/L | 4.25 | GRADIENT INTERVAL = | -5.00/ | 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|-------|-------|---------|------------|---------|--------|--------|--------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.299 | .030 | 2.27130 | 2001.60001 | 1544 0 | 0 | .23370 | .23360 | -5.00/ | 5.00 | .23360 | .23360 | .23370 | .23360 | .23340 | .23340 | .23340 | .23000 | 854.38000 |
| 1.299 | .050 | 2.33180 | 2005.10001 | 1544 0 | 0 | .23510 | .23520 | -5.00/ | 5.00 | .23510 | .23520 | .23470 | .23470 | .23500 | .23500 | .23500 | .23220 | 855.87000 |
| 1.299 | .070 | 2.32840 | 2005.10004 | 1544 0 | 0 | .23350 | .23350 | -5.00/ | 5.00 | .23350 | .23350 | .23390 | .23450 | .23400 | .23400 | .23350 | .23280 | 855.64000 |
| 1.299 | .090 | 2.31850 | 2005.80000 | 1544 0 | 0 | .23040 | .23230 | -5.00/ | 5.00 | .23260 | .23230 | .23280 | .23260 | .23320 | .23320 | .23320 | .23112 | 855.63000 |
| 1.295 | .110 | 2.29320 | 2005.80000 | 1544 0 | 0 | .23000 | .23060 | -5.00/ | 5.00 | .23040 | .23060 | .23040 | .23030 | .23120 | .23120 | .23120 | .22990 | 855.18000 |
| 1.295 | .130 | 2.33750 | 2005.80000 | 1544 0 | 0 | .22580 | .22540 | -5.00/ | 5.00 | .22570 | .22540 | .22570 | .22530 | .22520 | .22520 | .22520 | .22610 | 855.40000 |
| 1.295 | .150 | 2.34300 | 2005.80001 | 1544 0 | 0 | .22260 | .22280 | -5.00/ | 5.00 | .22280 | .22280 | .22180 | .22220 | .22230 | .22230 | .22230 | .22610 | 855.09000 |
| 1.292 | .170 | 2.35780 | 2007.89999 | 1544 0 | 0 | .21640 | .21700 | -5.00/ | 5.00 | .21700 | .21700 | .21670 | .21710 | .21780 | .21780 | .21780 | .22230 | 856.09000 |
| 1.292 | .190 | .01433 | .82924 | 1544 0 | 0 | .00063 | .00038 | -5.00/ | 5.00 | .00038 | .00038 | .00024 | .00036 | .00038 | .00038 | .00038 | .00052 | 856.35302 |

| MACH | ALPHA | BETA | PT | RUN NO. | 1544 0 | RN/L | 4.23 | GRADIENT INTERVAL = | -5.00/ | 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|-------|-------|---------|------------|---------|--------|--------|--------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.399 | .061 | 2.28230 | 2056.70001 | 1544 0 | 0 | .19450 | .19390 | -5.00/ | 5.00 | .19430 | .19390 | .19470 | .19430 | .19450 | .19450 | .19430 | .18530 | 886.73000 |
| 1.400 | .078 | 2.31480 | 2057.39999 | 1544 0 | 0 | .19530 | .19680 | -5.00/ | 5.00 | .19650 | .19680 | .19670 | .19650 | .19700 | .19700 | .19650 | .19370 | 887.04000 |
| 1.400 | .090 | 2.31710 | 2056.70001 | 1544 0 | 0 | .19730 | .19710 | -5.00/ | 5.00 | .19730 | .19730 | .19730 | .19710 | .19690 | .19690 | .19690 | .19390 | 886.65000 |
| 1.395 | .110 | 2.33440 | 2067.39999 | 1544 0 | 0 | .19510 | .19540 | -5.00/ | 5.00 | .19510 | .19540 | .19510 | .19510 | .19490 | .19490 | .19490 | .19430 | 886.97000 |
| 1.395 | .130 | 2.30730 | 2058.20001 | 1544 0 | 0 | .19280 | .19270 | -5.00/ | 5.00 | .19280 | .19270 | .19280 | .19280 | .19120 | .19120 | .19120 | .19250 | 887.26000 |
| 1.398 | .150 | 2.35940 | 2069.20001 | 1544 0 | 0 | .19040 | .19080 | -5.00/ | 5.00 | .19100 | .19080 | .19100 | .19100 | .19100 | .19100 | .19100 | .19140 | 887.26000 |
| 1.398 | .170 | 2.34280 | 2057.39999 | 1544 0 | 0 | .18950 | .18970 | -5.00/ | 5.00 | .18950 | .18970 | .18950 | .18950 | .18980 | .18980 | .18980 | .18970 | 887.01000 |
| 1.398 | .190 | 2.33320 | 2059.60001 | 1544 0 | 0 | .18660 | .18660 | -5.00/ | 5.00 | .18660 | .18660 | .18610 | .18590 | .18580 | .18580 | .18580 | .18730 | 887.67000 |
| 1.395 | .210 | .00535 | .16583 | 1544 0 | 0 | .00043 | .00052 | -5.00/ | 5.00 | .00052 | .00052 | .00048 | .00055 | .00052 | .00052 | .00052 | .00045 | 887.07580 |

(BETRINE) (02 AUG 76)

TABLATED DATA - OAR61 (ARC 11-97-87-094)
ARC 11-97-87-094 OAR161 ORBITER + TUFTS

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 174.8000 IN. YMRP = .0000 IN. Y0
BREF = 535.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0600

PARAMETRIC DATA

BETA = 5.000 ELEVCON = .000
AFLRON = .000 EDFLAP = -7.170

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|----------|--------|---------|------------|--------|---------|---------|--------|---------|---------|---------|-----------|
| .587 | .101 | 5.34530 | 2592.89999 | .74630 | .74730 | .74750 | .74690 | .74730 | .74670 | .82900 | 508.24000 |
| .596 | 4.223 | 5.37250 | 2592.89999 | .74680 | .74680 | .74680 | .74716 | .74660 | .74600 | .79330 | 507.28000 |
| .596 | 8.387 | 5.37250 | 2592.89999 | .74530 | .74500 | .74520 | .74540 | .74540 | .74590 | .78140 | 506.49000 |
| .596 | 10.516 | 5.37250 | 2592.89999 | .74620 | .74600 | .74670 | .74840 | .74650 | .74700 | .78140 | 504.79000 |
| .595 | 12.637 | 5.38210 | 2593.80001 | .74650 | .74840 | .74570 | .74590 | .74590 | .74590 | .75450 | 506.34000 |
| .595 | 14.755 | 5.37890 | 2594.29999 | .74240 | .74210 | .74170 | .74070 | .74590 | .74280 | .74950 | 506.52000 |
| .597 | 16.857 | 5.37870 | 2593.60001 | .73760 | .73810 | .73800 | .73920 | .73920 | .73990 | .74520 | 509.83000 |
| .595 | 21.070 | 5.39540 | 2593.60001 | .73460 | .73410 | .73390 | .73270 | .73350 | .73010 | .74010 | 505.93000 |
| GRADIENT | | .00632 | .00001 | .00005 | -.00002 | -.00017 | .00005 | -.00019 | -.00037 | -.00065 | -.28142 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|----------|--------|---------|------------|---------|---------|--------|---------|---------|--------|--------|-----------|
| .796 | .085 | 5.35580 | 2227.89999 | .59570 | .59520 | .59450 | .59440 | .59480 | .59350 | .63900 | 657.26000 |
| .799 | 4.258 | 5.38470 | 2229.29999 | .59370 | .59560 | .59460 | .59340 | .59380 | .59400 | .63900 | 654.28000 |
| .795 | 8.485 | 5.40380 | 2230.70001 | .59330 | .59560 | .59260 | .59300 | .59440 | .59450 | .59170 | 657.28000 |
| .795 | 10.629 | 5.39660 | 2231.39999 | .59470 | .59490 | .59130 | .59080 | .59150 | .59330 | .59260 | 657.28000 |
| .795 | 12.752 | 5.39520 | 2230.70001 | .59220 | .58360 | .59860 | .58890 | .58940 | .59010 | .59160 | 657.28000 |
| .795 | 14.833 | 5.43140 | 2231.39999 | .58350 | .58260 | .59410 | .58930 | .58940 | .59100 | .59110 | 657.28000 |
| .799 | 17.016 | 5.42210 | 2230.70001 | .58230 | .58190 | .59670 | .59020 | .57990 | .59600 | .58440 | 657.28000 |
| .795 | 21.273 | 5.44740 | 2231.39999 | .57180 | .57330 | .59980 | .57100 | .57160 | .56810 | .57710 | 657.28000 |
| GRADIENT | | .00808 | .36692 | -.00048 | -.00041 | .00002 | -.00024 | -.00024 | .00040 | .00081 | .72504 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|----------|--------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| .797 | .093 | 5.37330 | 2828.60001 | .59600 | .59600 | .59490 | .59450 | .59520 | .59380 | .63900 | 657.28000 |
| .800 | 4.269 | 5.40070 | 2178.39999 | .59470 | .59390 | .59470 | .59470 | .59470 | .59350 | .63900 | 685.19000 |
| .801 | 8.508 | 5.40740 | 2178.39999 | .59270 | .59280 | .59350 | .59370 | .59360 | .59320 | .63900 | 689.03000 |
| .804 | 10.637 | 5.40090 | 2177.00000 | .59450 | .59280 | .59250 | .59360 | .59310 | .59410 | .63900 | 691.92000 |
| .808 | 12.771 | 5.40120 | 2177.70001 | .59000 | .59230 | .59260 | .59190 | .59220 | .59120 | .63900 | 691.92000 |
| .807 | 14.904 | 5.41830 | 2177.70001 | .59730 | .59460 | .59720 | .59720 | .59520 | .59460 | .63900 | 689.49000 |
| .809 | 17.042 | 5.42890 | 2177.70001 | .59360 | .59090 | .59130 | .59110 | .59120 | .59010 | .63900 | 689.49000 |
| .802 | 21.395 | 5.48100 | 2177.70001 | .52170 | .52110 | .52380 | .52590 | .52590 | .52590 | .63900 | 679.74000 |
| GRADIENT | | .00655 | -11.99522 | -.01005 | -.01005 | -.00980 | -.00958 | -.00958 | -.00963 | -.00968 | 8.21244 |

(BE7R12) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER - TUFTS

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILPON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2630.0300 SQ.FT. YMRP = 1076.6800 IN. X0
LREF = 474.8800 IN. YMRP = .0000 IN. Y0
BREF = 936.8300 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 1151 0 RVAL = 4.22 GRADIENT INTERVAL = -5.004 5.004

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIFSF1 |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .895 | .084 | 5.36590 | 2114.00000 | .51540 | .51520 | .51510 | .51540 | .51540 | .51600 | .48220 | .07.68000 |
| .902 | 4.273 | 5.47490 | 2417.60001 | .51780 | .51820 | .51510 | .51700 | .51700 | .51840 | .50630 | 714.38000 |
| .903 | 8.514 | 5.40860 | 2119.00000 | .51350 | .51300 | .51810 | .51880 | .51800 | .51600 | .50830 | 710.26000 |
| .895 | 10.565 | 5.40110 | 2114.02000 | .51910 | .52110 | .52110 | .51860 | .51860 | .51690 | .51310 | 705.52000 |
| .899 | 12.787 | 5.40360 | 2116.20001 | .50300 | .50800 | .50870 | .50890 | .51000 | .50890 | .51060 | 708.29000 |
| .893 | 14.921 | 5.42410 | 2114.70001 | .50750 | .50700 | .50470 | .50470 | .50780 | .50900 | .50830 | 708.01000 |
| .893 | 17.070 | 5.43240 | 2116.20001 | .49440 | .49380 | .49350 | .49370 | .49370 | .49680 | .50410 | 709.22000 |
| .895 | 21.345 | 5.45990 | 2116.20001 | .47790 | .47600 | .47730 | .47730 | .47730 | .47670 | .49240 | 705.71000 |
| | GRADIENT | .00931 | .85903 | .00055 | .00072 | .00000 | .00000 | .00038 | .00057 | .00093 | .61268 |

RUN NO. 1164 0 RVAL = 4.20 GRADIENT INTERVAL = -5.004 5.004

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIFSF1 |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|------------|
| .902 | .084 | 5.36600 | 2076.50000 | .45380 | .48220 | .45170 | .46130 | .46340 | .46080 | .48420 | .735.34000 |
| .906 | 4.234 | 5.40510 | 2073.70001 | .47420 | .47160 | .47440 | .47640 | .47670 | .47800 | .47790 | 729.99000 |
| .906 | 7.708 | 5.38650 | 2074.39999 | .47330 | .47360 | .47540 | .47400 | .47660 | .47850 | .47780 | 730.07000 |
| .902 | 10.708 | 5.40270 | 2074.39999 | .46570 | .46880 | .46880 | .46570 | .46710 | .46470 | .47800 | 727.37000 |
| .903 | 12.860 | 5.38150 | 2075.79999 | .46250 | .46330 | .46450 | .46540 | .47320 | .46460 | .46780 | 728.69000 |
| .908 | 14.995 | 5.41060 | 2075.10001 | .45490 | .45260 | .45450 | .45340 | .45450 | .45520 | .46210 | 731.69000 |
| .907 | 17.158 | 5.41620 | 2075.79999 | .44460 | .44490 | .44490 | .44490 | .44490 | .44460 | .46460 | 731.39000 |
| .933 | 21.418 | 5.43130 | 2075.10001 | .42660 | .42740 | .42540 | .42700 | .42640 | .42410 | .44150 | 722.37000 |
| | GRADIENT | .01193 | .66656 | .00152 | .00664 | .00230 | .00217 | .00199 | .00219 | .00850 | -1.27278 |

RUN NO. 1251 0 RVAL = 4.23 GRADIENT INTERVAL = -5.004 5.004

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIFSF1 |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|------------|
| .979 | .085 | 5.37350 | 2067.39999 | .42160 | .42120 | .42830 | .42050 | .41930 | .42030 | .40670 | .751.28000 |
| .979 | 4.304 | 5.40310 | 2066.20001 | .42660 | .42760 | .42760 | .42760 | .42520 | .42680 | .41610 | 750.08000 |
| .979 | 6.150 | 5.40820 | 2063.20001 | .42390 | .42350 | .42660 | .42310 | .42240 | .42320 | .41850 | 750.80000 |
| .979 | 8.591 | 5.40650 | 2065.89999 | .42820 | .42800 | .42850 | .42740 | .42740 | .42658 | .42210 | 750.85000 |
| .979 | 10.755 | 5.38280 | 2067.39999 | .42140 | .42080 | .42110 | .42280 | .42070 | .42670 | .42340 | 749.99000 |
| .977 | 12.895 | 5.38370 | 2064.50000 | .42140 | .42040 | .41780 | .41930 | .41930 | .41970 | .42350 | 748.48000 |
| .977 | 15.055 | 5.39420 | 2067.39999 | .41260 | .41260 | .41780 | .41850 | .41520 | .41350 | .41840 | 749.57000 |
| .976 | 17.200 | 5.41640 | 2065.20001 | .40938 | .40690 | .40590 | .40730 | .40600 | .40660 | .41420 | 748.24000 |
| .973 | 21.504 | 5.44860 | 2063.20001 | .39576 | .39560 | .39400 | .39400 | .39450 | .39400 | .40640 | 745.94000 |
| | GRADIENT | .00654 | .52136 | .00109 | .00128 | .00159 | .00168 | .00135 | .00154 | .00385 | -2.5658 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(BETR12) (02 AUG 75)

ARC 11-97-87-094 0A161 ORBITER + TUFTS

PARAMETRIC DATA

BETA = 5.020 ELEVON = .000
ALLRON = .000 BEFLAP = -7.17E

REFERENCE DATA

SPEF = 2680.0000 50. FT. XMRP = 1076.6800 IN. XC
LREF = 474.8800 IN. YMRP = .0000 IN. YC
BREF = 936.6800 IN. ZMRP = 375.0800 IN. ZC
SCALE = .0500

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.051 | .094 | 5.38210 | 2042.80001 | .35990 | .35740 | .35780 | .35780 | .35720 | .35580 | .36740 | 785.12000 |
| 1.049 | 4.321 | 5.41230 | 2033.80000 | .35830 | .35980 | .36020 | .35870 | .36060 | .35070 | .37840 | 783.41000 |
| 1.045 | 8.615 | 5.44100 | 2044.00000 | .35730 | .35680 | .35540 | .35630 | .35560 | .35470 | .38680 | 788.88000 |
| 1.050 | 10.785 | 5.38310 | 2048.50000 | .35300 | .35290 | .35360 | .35170 | .35280 | .35330 | .36090 | 784.15000 |
| 1.046 | 12.934 | 5.38760 | 2042.50001 | .35620 | .35740 | .35740 | .35630 | .35460 | .34250 | .36680 | 782.60000 |
| 1.052 | 15.096 | 5.41400 | 2041.20000 | .34680 | .34930 | .34930 | .34930 | .34930 | .34680 | .35380 | 786.21000 |
| 1.049 | 17.258 | 5.44810 | 2044.50000 | .34270 | .34408 | .34610 | .34630 | .34880 | .34680 | .34980 | 786.21000 |
| 1.041 | 21.591 | 5.47040 | 2044.70000 | .33050 | .33130 | .33060 | .33050 | .33060 | .33050 | .34050 | 780.38000 |
| | GRADIENT | .00714 | -.66241 | .00057 | .00857 | .00062 | .00028 | .00080 | .00114 | .00860 | -.40454 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.100 | .086 | 5.35820 | 2005.10001 | .32950 | .33030 | .32970 | .33020 | .33038 | .33000 | .32320 | 795.46000 |
| 1.100 | 4.324 | 5.39860 | 2004.39999 | .32840 | .32950 | .32900 | .32900 | .32910 | .32900 | .32680 | 795.33000 |
| 1.097 | 8.608 | 5.40440 | 2084.39999 | .32570 | .32540 | .32550 | .32650 | .32520 | .32560 | --- | 794.66000 |
| 1.103 | 10.785 | 5.38920 | 2005.80000 | .32320 | .32390 | .32470 | .32550 | .32500 | .32540 | .32610 | 796.56000 |
| 1.096 | 15.078 | 5.41000 | 2005.80000 | .32850 | .32740 | .32810 | .32800 | .32790 | .32760 | .32780 | 793.32000 |
| 1.098 | 17.255 | 5.44030 | 2004.39998 | .32480 | .32440 | .32430 | .32430 | .32420 | .32430 | .32590 | 794.22000 |
| 1.094 | 21.569 | 5.46460 | 2008.60001 | .30850 | .30890 | .31020 | .31100 | .31020 | .31010 | .31860 | 794.89000 |
| | GRADIENT | .00788 | -.16516 | -.00026 | -.00019 | -.00017 | -.00028 | -.00028 | -.00024 | .00066 | -.03067 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|-------|----------|---------|------------|--------|---------|--------|--------|--------|--------|--------|-----------|
| 1.151 | .083 | 5.37110 | 2004.39999 | .30700 | .30880 | .30660 | .30770 | .30930 | .30740 | .30960 | 818.50000 |
| 1.150 | 4.309 | 5.43180 | 2003.70000 | .30790 | .30800 | .30810 | .30840 | .30970 | .31040 | .31130 | 813.89000 |
| 1.145 | 8.614 | 5.44480 | 2006.50000 | .30120 | .30140 | .30100 | .30090 | .30010 | .29990 | .30600 | 819.07000 |
| 1.146 | 10.785 | 5.38340 | 2004.39999 | .30130 | .30010 | .30030 | .30130 | .30060 | .30130 | .30410 | 814.51000 |
| 1.145 | 12.933 | 5.40450 | 2004.39999 | .30090 | .30010 | .30010 | .30060 | .30020 | .30100 | .30260 | 815.13000 |
| 1.147 | 15.095 | 5.42050 | 2005.10001 | .30370 | .30260 | .30350 | .30240 | .30260 | .30320 | .30350 | 815.24000 |
| 1.148 | 17.250 | 5.44930 | 2005.80000 | .29870 | .29760 | .29800 | .29760 | .29970 | .29970 | .30230 | 819.67000 |
| 1.148 | 21.579 | 5.47060 | 2010.10001 | .28690 | .28690 | .28570 | .28540 | .28660 | .28540 | .29480 | 816.07000 |
| | GRADIENT | .01435 | -.16562 | .00021 | -.00002 | .00059 | .00017 | .00033 | .00071 | .00840 | -.14869 |

(BETR12) (02 AUG 76)

TABULATED DATA - 0A16J (ARC 11-97-87-08+)

ARC 11-97-87-08+ 0A16J ORBITER + TUFTS

PARAMETRIC DATA

BETA = 5.000 ELEVON = .300
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 956.6800 IN. ZMRP = 373.0000 IN. ZO
SCALE = .0300

RUN NO. 1454 0 RWL = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|-------|--------|---------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.199 | .082 | 5.38620 | .28020 | .28000 | .28120 | .28070 | .28010 | .28060 | .27330 | 829.75000 |
| 1.199 | 4.296 | 5.40700 | .28000 | .27930 | .28020 | .28010 | .28030 | .28030 | .27670 | 829.94000 |
| 1.196 | 8.681 | 5.41450 | .27470 | .27450 | .27450 | .27450 | .27610 | .27610 | .27700 | 829.88000 |
| 1.196 | 10.779 | 5.38780 | .27510 | .27430 | .27380 | .27390 | .27440 | .27430 | .27658 | 829.51000 |
| 1.195 | 12.927 | 5.40410 | .27480 | .27350 | .27360 | .27270 | .27240 | .27240 | .27450 | 829.13000 |
| 1.194 | 15.089 | 5.42826 | .27270 | .27310 | .26930 | .26720 | .26790 | .26700 | .27160 | 828.91000 |
| 1.194 | 17.248 | 5.43690 | .26520 | .26720 | .26920 | .26330 | .26380 | .26250 | .26750 | 830.04000 |
| 1.194 | 21.557 | 5.45950 | .20000 | .20000 | .20024 | .00014 | .00005 | .00007 | .00081 | 830.04000 |
| | | .00494 | .16613 | .00002 | .00024 | .00014 | .00005 | .00007 | .00081 | .04271 |

RUN NO. 146/ 0 RWL = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|-------|--------|---------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.299 | .058 | 5.37810 | .28990 | .28950 | .28930 | .28920 | .28940 | .28930 | .25180 | 855.87000 |
| 1.297 | 4.276 | 5.42840 | .28160 | .23180 | .23110 | .23130 | .23100 | .23120 | .24330 | 855.98000 |
| 1.295 | 8.570 | 5.41430 | .22950 | .23030 | .22950 | .22950 | .22950 | .22910 | .25720 | 855.06000 |
| 1.294 | 10.747 | 5.41160 | .22870 | .22870 | .22900 | .22880 | .22870 | .22850 | .23310 | 854.60000 |
| 1.293 | 12.897 | 5.39810 | .22900 | .22920 | .22900 | .22910 | .22980 | .22950 | .23210 | 855.06000 |
| 1.293 | 15.051 | 5.41970 | .22600 | .22640 | .22640 | .22630 | .22670 | .22610 | .22970 | 855.40000 |
| 1.298 | 17.211 | 5.44158 | .22310 | .22390 | .22440 | .22470 | .22590 | .22470 | .22730 | 855.75000 |
| 1.298 | 21.525 | 5.46320 | .22680 | .22640 | .22520 | .22520 | .22550 | .22610 | .22670 | 855.40000 |
| 1.298 | | .01195 | .00040 | .00055 | .00043 | .00050 | .00038 | .00045 | .00202 | .02615 |

RUN NO. 155/ 0 RWL = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|-------|--------|---------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.399 | .051 | 5.41000 | .19230 | .19210 | .19240 | .19210 | .19210 | .19250 | .18990 | 886.71000 |
| 1.402 | 4.259 | 5.46710 | .19240 | .19240 | .19240 | .19210 | .19220 | .19280 | .19140 | 886.70000 |
| 1.397 | 8.545 | 5.42220 | .19350 | .19300 | .19300 | .19350 | .19300 | .19350 | .19230 | 886.99000 |
| 1.396 | 10.715 | 5.39750 | .19250 | .19270 | .19250 | .19310 | .19240 | .19250 | .19250 | 886.97000 |
| 1.395 | 12.856 | 5.42210 | .19260 | .19250 | .19260 | .19266 | .19300 | .19250 | .19250 | 886.97000 |
| 1.399 | 15.013 | 5.43230 | .19140 | .19130 | .19080 | .19060 | .19050 | .19050 | .19160 | 887.33000 |
| 1.398 | 17.178 | 5.46230 | .18910 | .18970 | .18940 | .19000 | .18940 | .18970 | .19050 | 886.95000 |
| 1.398 | 21.492 | 5.46730 | .18970 | .18920 | .18930 | .18930 | .18930 | .18930 | .19030 | 886.29000 |
| 1.399 | | .01357 | .00005 | .00007 | .00001 | .00017 | .00002 | .00007 | .00036 | .01426 |

TABULATED DATA - 0A161 (ARC 11-97-87-09#)
ARC 11-97-87-09# 0A161 ORBITER

(BETR13) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 29 / 0 RWL = 4.25 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|------|----------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .597 | .136 | -4.94520 | 2592.89999 | .74650 | .74720 | .74640 | .74630 | .74670 | .74600 | .73810 | 508.24000 |
| .598 | 2.166 | -4.93450 | 2593.00000 | .74560 | .74580 | .74590 | .74520 | .74610 | .74590 | .74140 | 510.61000 |
| .598 | 4.211 | -4.92220 | 2595.00000 | .74610 | .74560 | .74570 | .74520 | .74610 | .74550 | .74390 | 510.02000 |
| .597 | 6.283 | -4.93490 | 2595.00000 | .74510 | .74540 | .74540 | .74530 | .74490 | .74550 | .74470 | 509.44000 |
| .599 | 8.371 | -4.92210 | 2595.00000 | .74540 | .74530 | .74550 | .74560 | .74490 | .74530 | .74600 | 510.32000 |
| .597 | 10.476 | -4.91140 | 2595.00000 | .74480 | .74480 | .74510 | .74510 | .74490 | .74460 | .74570 | 508.86000 |
| .597 | 12.586 | -4.88440 | 2595.00000 | .74290 | .74230 | .74210 | .74240 | .74170 | .74220 | .74430 | 508.86000 |
| .597 | 14.690 | -4.86170 | 2595.00000 | .74010 | .73990 | .73970 | .74070 | .74010 | .73910 | .74189 | 508.26000 |
| .597 | 16.788 | -4.83300 | 2595.00000 | .73660 | .73730 | .73670 | .73730 | .73630 | .73730 | .73870 | 510.62000 |
| .597 | 18.908 | -4.80890 | 2595.70001 | .73390 | .73380 | .73310 | .73290 | .73330 | .73380 | .73730 | 508.87800 |
| .597 | 21.014 | -4.80810 | 2595.70001 | .73000 | .73010 | .73100 | .73080 | .72950 | .72950 | .73390 | 508.30000 |
| .597 | 23.115 | -4.89900 | 2596.70001 | .72510 | .72510 | .72580 | .72590 | .72510 | .72400 | .72960 | 508.31000 |
| .596 | 25.199 | -4.88970 | 2596.39999 | .71800 | .71800 | .71880 | .71840 | .71880 | .71800 | .72430 | 510.04000 |
| .598 | 26.192 | -4.84950 | 2595.70001 | .71710 | .71800 | .71800 | .71840 | .71880 | .71800 | .72430 | 510.04000 |
| .598 | GRADIENT | .00073 | .51476 | -.00010 | -.00039 | -.00017 | -.00027 | -.00015 | -.00012 | .00142 | .43596 |

RUN NO. 34 / 0 RWL = 4.25 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|------|----------|----------|------------|---------|---------|---------|--------|--------|--------|--------|-----------|
| .698 | .126 | -4.94620 | 2378.50000 | .67150 | .67210 | .67070 | .67140 | .67170 | .67190 | .67040 | 585.78000 |
| .698 | 2.166 | -4.93910 | 2378.50000 | .67150 | .67040 | .67150 | .67110 | .67160 | .67150 | .67130 | 587.39000 |
| .698 | 4.220 | -4.95210 | 2378.50000 | .67140 | .67140 | .67080 | .67150 | .67270 | .67200 | .67240 | 586.32000 |
| .698 | 6.315 | -4.94530 | 2378.50000 | .67020 | .67010 | .67100 | .67010 | .67000 | .67100 | .67160 | 586.85000 |
| .698 | 8.418 | -4.93230 | 2379.29999 | .67130 | .67150 | .67100 | .67050 | .67020 | .67060 | .67090 | 586.34000 |
| .698 | 10.539 | -4.92050 | 2380.00000 | .67020 | .67070 | .66950 | .66820 | .67000 | .66920 | .66980 | 585.82000 |
| .697 | 12.664 | -4.89370 | 2380.00000 | .66470 | .66430 | .66460 | .66400 | .66390 | .66520 | .66760 | 585.83000 |
| .698 | 14.763 | -4.88970 | 2380.00000 | .66240 | .66240 | .66210 | .66100 | .66100 | .66110 | .66440 | 584.75000 |
| .697 | 16.874 | -4.90450 | 2380.00000 | .65920 | .65950 | .65900 | .65760 | .65740 | .65800 | .66200 | 585.29000 |
| .697 | 19.006 | -4.93610 | 2380.00000 | .65350 | .65370 | .65330 | .65160 | .65300 | .65250 | .65750 | 585.44000 |
| .698 | 21.142 | -4.93470 | 2380.00000 | .64990 | .64840 | .64930 | .64820 | .64780 | .64570 | .65360 | 585.83000 |
| .698 | 23.251 | -4.93040 | 2380.00000 | .64390 | .64380 | .64380 | .64250 | .64280 | .64500 | .64500 | 585.39000 |
| .698 | 25.302 | -4.99740 | 2380.70001 | .62360 | .62310 | .62310 | .62510 | .62530 | .62630 | .63520 | 585.31000 |
| .697 | 26.262 | -4.87600 | 2380.70001 | .62360 | .62310 | .62310 | .62510 | .62530 | .62630 | .63520 | 585.31000 |
| .697 | GRADIENT | -.00145 | .06000 | -.00002 | -.00017 | -.00002 | .00002 | .00024 | .00002 | .00441 | .13067 |

(BETR13) (02 AUG 78)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ.
LREF = 474.8000 IN. YMRP = .0000 IN. YO.
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | RUN NO. | 43/ 0 | RN/L = | 4.22 | GRADIENT INTERVAL = | -5.00/ | 5.06 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | Q(PSF) |
|------|----------|----------|------------|---------|-------|--------|------|---------------------|--------|------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .80C | .107 | -4.95160 | 2208.10001 | | | | | | | | .59390 | .59220 | .59390 | .59390 | .59220 | .59390 | .59390 | .59390 | 648.69000 |
| .799 | 2.168 | -4.95140 | 2208.10001 | | | | | | | | .59370 | .59330 | .59420 | .59370 | .59290 | .59370 | .59370 | .59370 | 647.72000 |
| .798 | 4.238 | -4.95370 | 2208.10001 | | | | | | | | .59540 | .59530 | .59550 | .59540 | .59480 | .59390 | .59390 | .59390 | 646.75000 |
| .798 | 6.341 | -4.95300 | 2208.10001 | | | | | | | | .59520 | .59500 | .59510 | .59520 | .59280 | .59350 | .59350 | .59350 | 646.75000 |
| .797 | 8.452 | -4.95600 | 2207.99999 | | | | | | | | .59440 | .59400 | .59440 | .59440 | .59450 | .59450 | .59450 | .59450 | 648.22000 |
| .797 | 10.572 | -4.95760 | 2208.10001 | | | | | | | | .59450 | .59230 | .59450 | .59190 | .59290 | .59190 | .59190 | .59190 | 645.78000 |
| .798 | 12.691 | -4.97740 | 2208.10001 | | | | | | | | .58980 | .58980 | .58910 | .58840 | .58890 | .58840 | .58840 | .58840 | 647.19000 |
| .798 | 14.815 | -4.98110 | 2207.99999 | | | | | | | | .58450 | .58420 | .58380 | .58420 | .58480 | .58480 | .58480 | .58480 | 645.78000 |
| .797 | 16.931 | -4.98110 | 2208.10001 | | | | | | | | .58220 | .58220 | .58210 | .58220 | .58240 | .58240 | .58240 | .58240 | 645.78000 |
| .797 | 19.065 | -4.98250 | 2208.10001 | | | | | | | | .57850 | .57760 | .57810 | .57780 | .57720 | .57720 | .57720 | .57720 | 645.78000 |
| .797 | 21.213 | -4.94930 | 2208.10001 | | | | | | | | .57164 | .57190 | .57190 | .57300 | .57210 | .57100 | .57100 | .57100 | 644.81000 |
| .796 | 23.309 | -4.93910 | 2208.10001 | | | | | | | | .56050 | .56050 | .56040 | .56050 | .56130 | .56050 | .56050 | .56050 | 645.29000 |
| .796 | 25.344 | -4.90820 | 2208.10001 | | | | | | | | .53978 | .53900 | .53910 | .53978 | .53820 | .53880 | .53880 | .53880 | 645.29000 |
| | GRADIENT | -.00051 | .00000 | | | | | | | | .00027 | .00039 | .00039 | .00027 | .00063 | .00012 | .00281 | .00281 | -.46727 |

| MACH | ALPHA | BETA | PT | RUN NO. | 44/ 0 | RN/L = | 4.23 | GRADIENT INTERVAL = | -5.00/ | 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | Q(PSF) |
|------|----------|----------|------------|---------|-------|--------|------|---------------------|--------|------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .851 | .113 | -4.97910 | 2160.00000 | | | | | | | | .55190 | .55220 | .55210 | .55140 | .55218 | .55160 | .55670 | .55670 | 681.69000 |
| .849 | 2.174 | -4.95640 | 2154.29999 | | | | | | | | .55660 | .55640 | .55690 | .55640 | .55700 | .55560 | .55478 | .55478 | 677.62000 |
| .847 | 4.257 | -4.94990 | 2157.20001 | | | | | | | | .55840 | .55640 | .55690 | .55730 | .55800 | .55690 | .55600 | .55600 | 677.35000 |
| .848 | 8.467 | -4.93970 | 2157.89999 | | | | | | | | .55590 | .55660 | .55600 | .55510 | .55670 | .55670 | .55670 | .55670 | 678.33000 |
| .847 | 10.593 | -4.92170 | 2157.89999 | | | | | | | | .55520 | .55570 | .55380 | .55320 | .55270 | .55560 | .55560 | .55560 | 677.41000 |
| .848 | 12.714 | -4.92920 | 2157.89999 | | | | | | | | .54960 | .54980 | .54990 | .54910 | .54870 | .54860 | .54860 | .54860 | 678.33000 |
| .845 | 13.868 | -4.91360 | 2155.79999 | | | | | | | | .55570 | .55530 | .55540 | .55610 | .55590 | .55640 | .55640 | .55640 | 678.33000 |
| .845 | 14.834 | -4.92580 | 2157.89999 | | | | | | | | .54620 | .54660 | .54440 | .54590 | .54680 | .54450 | .54450 | .54450 | 675.43000 |
| .846 | 16.980 | -4.94950 | 2157.89999 | | | | | | | | .54030 | .54100 | .54110 | .54050 | .53920 | .53830 | .53830 | .53830 | 677.62000 |
| .847 | 19.122 | -4.94760 | 2157.20001 | | | | | | | | .53370 | .53280 | .53450 | .53410 | .53450 | .53400 | .53370 | .53370 | 676.45000 |
| .845 | 23.337 | -4.94760 | 2157.20001 | | | | | | | | .52400 | .52370 | .52270 | .52350 | .52380 | .52380 | .52380 | .52380 | 675.49000 |
| .845 | 25.393 | -4.90760 | 2157.50000 | | | | | | | | .51080 | .51080 | .51080 | .50840 | .50980 | .50980 | .50980 | .50980 | 676.91000 |
| .846 | 26.405 | -4.85930 | 2156.50000 | | | | | | | | .49170 | .49130 | .49170 | .49260 | .49140 | .49140 | .49140 | .49140 | 676.91000 |
| .848 | GRADIENT | .00583 | -.67195 | | | | | | | | .00108 | .00101 | .00116 | .00142 | .00142 | .00128 | .00186 | .00186 | -1.04330 |

(BE7R)3F (02 AUG 75.)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A1ERON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0500

RUN NO. 544 0 RVL = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .903 | 1.05 | -4.97020 | 2127.50000 | .51340 | .51260 | .51140 | .51340 | .51260 | .51310 | .49100 | 715.23000 |
| .901 | 2.182 | -4.98070 | 2125.79999 | .51460 | .51550 | .51460 | .51400 | .51530 | .51430 | .50160 | 713.50000 |
| .900 | 4.264 | -4.97120 | 2127.56000 | .51390 | .51780 | .51390 | .51720 | .51610 | .51520 | .50760 | 713.15000 |
| .899 | 6.373 | -4.99370 | 2128.20001 | .51490 | .51700 | .51460 | .51370 | .51410 | .51310 | .50960 | 714.05000 |
| .899 | 8.486 | -4.95660 | 2127.50000 | .51390 | .51700 | .51620 | .51790 | .51700 | .51760 | .51320 | 712.28000 |
| .900 | 10.617 | -4.94310 | 2128.20001 | .51330 | .51390 | .51140 | .51260 | .51200 | .51150 | .51280 | 713.21000 |
| .900 | 12.742 | -4.92890 | 2127.50000 | .50980 | .51080 | .50980 | .51050 | .50860 | .50750 | .51120 | 713.57000 |
| .901 | 14.884 | -4.93660 | 2128.20001 | .50320 | .50320 | .50280 | .50120 | .50180 | .50280 | .50330 | 712.71000 |
| .899 | 17.012 | -4.93890 | 2127.50000 | .49950 | .49650 | .49620 | .49580 | .49520 | .49660 | .49700 | 710.99000 |
| .897 | 19.173 | -4.96950 | 2127.50000 | .48790 | .48730 | .48850 | .48650 | .48800 | .48770 | .48760 | 712.34000 |
| .899 | 21.302 | -4.96520 | 2128.20001 | .47430 | .47430 | .47560 | .47670 | .47420 | .47510 | .47270 | 713.06000 |
| .900 | 23.415 | -4.94990 | 2126.79999 | .45490 | .45490 | .45500 | .45420 | .45300 | .45200 | .45200 | 710.61000 |
| .896 | 25.486 | -4.92540 | 2128.20001 | .43730 | .43730 | .43600 | .43490 | .43500 | .43630 | .44910 | 712.74000 |
| .899 | 26.494 | -4.87940 | 2127.50000 | .43020 | .43020 | .43180 | .42950 | .43030 | .42880 | .44910 | 712.74000 |
| | GRADIENT | -.00024 | .00011 | .00082 | .00082 | .00050 | .00081 | .00084 | .00050 | .00399 | -.50008 |

RUN NO. 554 0 RVL = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| .949 | 1.119 | -4.96790 | 2086.39999 | .46070 | .45940 | .46030 | .46120 | .46130 | .46150 | .47610 | 736.44000 |
| .949 | 2.197 | -4.96230 | 2084.29999 | .46380 | .46570 | .46570 | .46580 | .46680 | .46740 | .47170 | 736.20000 |
| .950 | 4.294 | -4.95850 | 2085.00000 | .46740 | .46840 | .46760 | .46540 | .46590 | .46570 | .46880 | 736.66000 |
| .949 | 6.410 | -4.95140 | 2085.70001 | .46600 | .46520 | .46540 | .46360 | .46640 | .46520 | .46710 | 736.36000 |
| .947 | 8.531 | -4.94470 | 2085.00000 | .46470 | .46290 | .46220 | .46200 | .46090 | .46150 | .46430 | 735.73000 |
| .948 | 10.653 | -4.94040 | 2186.70001 | .45900 | .45790 | .45710 | .45940 | .45950 | .45850 | .46160 | 735.59000 |
| .947 | 12.862 | -4.93170 | 2085.00000 | .45540 | .45510 | .45650 | .45790 | .45570 | .45600 | .45950 | 735.73000 |
| .946 | 14.949 | -4.94880 | 2085.00000 | .44260 | .44260 | .44660 | .44600 | .44650 | .44670 | .45390 | 734.36000 |
| .947 | 17.088 | -4.95910 | 2085.70001 | .43930 | .43830 | .44020 | .44360 | .44040 | .44020 | .44820 | 735.21000 |
| .947 | 19.270 | -4.94660 | 2085.00000 | .42990 | .42990 | .42900 | .42660 | .42620 | .42680 | .43830 | 735.13000 |
| .946 | 21.396 | -4.96440 | 2084.29999 | .41530 | .41530 | .41520 | .41450 | .41460 | .41490 | .42780 | 733.89000 |
| .946 | 23.487 | -4.94960 | 2085.70001 | .39950 | .39800 | .39160 | .39160 | .39310 | .39290 | .41390 | 734.05000 |
| .945 | 25.568 | -4.92320 | 2085.00000 | .38780 | .38920 | .39000 | .38780 | .38930 | .38640 | .40190 | 733.20000 |
| .948 | 26.553 | -4.91010 | 2085.76001 | .38150 | .38280 | .38300 | .38260 | .38290 | .38320 | .39350 | 735.58000 |
| | GRADIENT | -.00225 | -.33441 | .00161 | .00216 | .00175 | .00140 | .00110 | .00100 | -.00151 | -.05293 |

(BE7R13) (02 AUG 78)

TABULATED DATA - 0A161 (ARC 11-97-87-08#)

ARC 11-97-87-08# 0A161: ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
ATLROM = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XG
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 958.6800 IN. ZMRP = 375.0000 IN. ZG
SCALE = .0300

RUN NO. 647 0 RM/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .981 | .113 | -4.9690 | 2075.79999 | .42180 | .42330 | .42160 | .42168 | .42150 | .42360 | .40600 | 755.44000 |
| .979 | 2.204 | -4.96170 | 2074.39999 | .42450 | .42520 | .42450 | .42540 | .42260 | .42410 | .41380 | 753.41000 |
| .980 | 4.303 | -4.95440 | 2073.10001 | .42220 | .42200 | .42170 | .42170 | .42220 | .42320 | .41820 | 754.61000 |
| .979 | 6.425 | -4.94710 | 2074.39999 | .42520 | .42550 | .42450 | .42390 | .42490 | .42330 | .42190 | 753.41000 |
| .979 | 8.570 | -4.93980 | 2076.50000 | .42190 | .41970 | .42060 | .42110 | .42080 | .42100 | .42130 | 754.04000 |
| .978 | 10.698 | -4.93250 | 2075.10001 | .41730 | .42020 | .41840 | .41870 | .41900 | .41870 | .42060 | 753.42000 |
| .979 | 12.844 | -4.92520 | 2075.10001 | .41650 | .41730 | .41750 | .41650 | .41500 | .41450 | .41750 | 752.84000 |
| .977 | 15.003 | -4.91790 | 2075.79999 | .41020 | .40950 | .41030 | .41130 | .41100 | .41190 | .41430 | 752.84000 |
| .978 | 17.149 | -4.91060 | 2075.10001 | .40500 | .40420 | .40280 | .40280 | .40310 | .40140 | .40950 | 752.75000 |
| .976 | 19.319 | -4.90330 | 2075.10001 | .38590 | .39530 | .39590 | .39590 | .39590 | .39520 | .40330 | 752.38000 |
| .977 | 21.462 | -4.89600 | 2075.10001 | .38990 | .38930 | .38820 | .38840 | .38890 | .38880 | .39710 | 751.26000 |
| .976 | 23.578 | -4.88870 | 2075.50000 | .37090 | .37020 | .36950 | .36930 | .36790 | .37020 | .38490 | 752.55000 |
| .977 | 25.640 | -4.88140 | 2075.10001 | .36220 | .36240 | .36220 | .36380 | .36130 | .36060 | .37390 | 750.88000 |
| .975 | 26.645 | -4.87410 | 2074.39999 | .35880 | .35880 | .35890 | .35850 | .35810 | .35700 | .36630 | 753.41000 |
| .979 | .00188 | .00188 | .16572 | .00000 | .00000 | .00000 | .00000 | .00000 | .00014 | .00291 | .19758 |

RUN NO. 654 0 RM/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.049 | .126 | -4.96830 | 2040.58000 | .36250 | .36050 | .36180 | .36180 | .36120 | .36020 | .33380 | 783.21000 |
| 1.051 | 2.210 | -4.95230 | 2038.39999 | .36270 | .36360 | .36270 | .36190 | .36180 | .36390 | .37400 | 783.50000 |
| 1.053 | 4.316 | -4.93970 | 2041.20000 | .35770 | .35920 | .35900 | .35900 | .35750 | .35740 | .36640 | 786.63000 |
| 1.049 | 6.436 | -4.93160 | 2038.39999 | .35970 | .35930 | .36020 | .35970 | .35780 | .35900 | .36280 | 782.87000 |
| 1.047 | 8.570 | -4.92430 | 2040.50000 | .35570 | .35590 | .35610 | .35640 | .35540 | .35540 | .35930 | 782.98000 |
| 1.049 | 10.721 | -4.91700 | 2041.20000 | .35110 | .35130 | .35230 | .35130 | .35060 | .35140 | .35610 | 783.01000 |
| 1.049 | 12.872 | -4.90970 | 2038.39999 | .35000 | .35000 | .34920 | .34890 | .34800 | .34910 | .35290 | 782.56000 |
| 1.048 | 15.041 | -4.90240 | 2038.39999 | .34740 | .34560 | .34560 | .34580 | .34610 | .34630 | .34970 | 781.93000 |
| 1.046 | 17.204 | -4.89510 | 2040.58000 | .33680 | .33710 | .33690 | .33650 | .33650 | .33710 | .34430 | 784.78000 |
| 1.046 | 19.374 | -4.88780 | 2038.39999 | .33150 | .33160 | .33070 | .33050 | .33030 | .33020 | .33860 | 780.98000 |
| 1.045 | 21.533 | -4.88050 | 2043.30000 | .32550 | .32490 | .32460 | .32510 | .32520 | .32670 | .33290 | 782.71000 |
| 1.045 | 23.664 | -4.87320 | 2042.60001 | .31800 | .31800 | .31800 | .31850 | .31850 | .31730 | .32620 | 782.92000 |
| 1.043 | 25.736 | -4.86590 | 2040.50000 | .30600 | .30600 | .30600 | .30590 | .30550 | .30510 | .31720 | 780.38000 |
| 1.047 | 26.753 | -4.85860 | 2042.60001 | .30720 | .30720 | .30760 | .30750 | .30750 | .30770 | .31310 | 783.23000 |
| | | .00204 | .16915 | .00115 | .00031 | .00067 | .00048 | .00088 | .00060 | .00775 | .62606 |

(BE7R13) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-09%)
ARC 11-97-87-09% 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.8800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q (PSF) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.100 | .091 | 5.38610 | 2014.30000 | .38200 | .33150 | .33120 | .33140 | .33050 | .33080 | .32060 | 799.12000 |
| 1.101 | 2.297 | 4.96320 | 2014.30000 | .38020 | .33030 | .33090 | .33080 | .33060 | .33110 | .32720 | 799.40000 |
| 1.100 | 4.310 | 4.98440 | 2015.70000 | .38980 | .32980 | .32960 | .32940 | .32940 | .32990 | .32790 | 799.68000 |
| 1.100 | 6.438 | 4.93630 | 2015.00000 | .32830 | .32830 | .32760 | .32780 | .32770 | .32800 | .32790 | 799.53000 |
| 1.098 | 8.568 | 4.94820 | 2014.30000 | .32400 | .32400 | .32400 | .32480 | .32470 | .32420 | .32630 | 798.29000 |
| 1.099 | 10.721 | 4.93920 | 2015.70000 | .32420 | .32380 | .32400 | .32420 | .32380 | .32450 | .32530 | 799.11000 |
| 1.099 | 12.875 | 4.92200 | 2015.00000 | .32400 | .32340 | .32400 | .32410 | .32380 | .32450 | .32540 | 799.98000 |
| 1.100 | 15.046 | 4.94060 | 2015.70000 | .32260 | .32260 | .32190 | .32170 | .32150 | .32080 | .32390 | 799.38000 |
| 1.100 | 17.209 | 4.94980 | 2015.70000 | .31860 | .31870 | .31880 | .31840 | .31840 | .31840 | .32160 | 799.39000 |
| 1.100 | 19.382 | 4.97300 | 2015.70000 | .30970 | .30970 | .30900 | .30930 | .30950 | .30920 | .32160 | 799.39000 |
| 1.100 | 21.531 | 4.96440 | 2015.70000 | .30440 | .30390 | .30400 | .30420 | .30340 | .30360 | .32160 | 799.39000 |
| 1.099 | 23.661 | 4.95810 | 2015.70000 | .29710 | .29720 | .29700 | .29710 | .29650 | .29700 | .30500 | 799.17000 |
| 1.099 | 25.769 | 4.93600 | 2016.39999 | .29450 | .29440 | .29430 | .29470 | .29470 | .29440 | .30000 | 799.52000 |
| 1.097 | 25.783 | 4.88800 | 2013.69001 | .28800 | .28810 | .28860 | .28860 | .28850 | .28790 | .29510 | 797.68000 |
| | GRADIENT | -2.46040 | .38148 | -.00052 | -.00040 | -.00038 | -.00062 | -.00026 | -.00021 | -.00173 | .12800 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q (PSF) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.148 | .121 | 4.98490 | 2001.60001 | .30840 | .30890 | .30840 | .30890 | .30960 | .30920 | .31170 | 814.23000 |
| 1.149 | 2.193 | 4.97270 | 2003.70000 | .30940 | .30828 | .30820 | .30958 | .30740 | .30750 | .31000 | 815.47000 |
| 1.148 | 4.299 | 4.95780 | 2003.00000 | .30610 | .30520 | .30610 | .30570 | .30630 | .30640 | .30840 | 814.78000 |
| 1.147 | 6.423 | 4.94950 | 2003.00000 | .30520 | .30520 | .30520 | .30470 | .30520 | .30490 | .30690 | 814.30000 |
| 1.147 | 8.561 | 4.93870 | 2004.39999 | .30100 | .30060 | .30050 | .30090 | .30040 | .30080 | .30360 | 814.85000 |
| 1.147 | 10.714 | 4.94270 | 2003.70000 | .30000 | .30030 | .30110 | .30090 | .30020 | .30160 | .30310 | 814.65000 |
| 1.148 | 12.868 | 4.9410 | 2003.00000 | .30020 | .29928 | .30080 | .30150 | .30140 | .30170 | .30280 | 814.66000 |
| 1.148 | 15.043 | 4.94330 | 2004.39999 | .29570 | .29660 | .29660 | .29660 | .29630 | .29540 | .29558 | 815.32000 |
| 1.150 | 17.204 | 4.94670 | 2004.39999 | .29350 | .29440 | .29420 | .29410 | .29320 | .29340 | .29690 | 816.27000 |
| 1.148 | 19.380 | 4.97840 | 2005.10001 | .28560 | .28540 | .28510 | .28510 | .28670 | .28510 | .29300 | 815.71000 |
| 1.149 | 21.531 | 4.86570 | 2005.10001 | .28150 | .28098 | .28170 | .28160 | .28160 | .28180 | .28760 | 815.71000 |
| 1.149 | 23.664 | 4.95720 | 2003.00000 | .27940 | .27890 | .27860 | .27860 | .27860 | .27890 | .28570 | 815.25000 |
| 1.149 | 25.770 | 4.94540 | 2003.00000 | .27500 | .27500 | .27500 | .27390 | .27430 | .27340 | .27940 | 815.25000 |
| 1.149 | 26.896 | 4.91030 | 2004.39999 | .27100 | .27030 | .27020 | .27050 | .27070 | .27090 | .27530 | 816.27000 |
| 1.150 | GRADIENT | 0.06548 | .33331 | -.00055 | -.00069 | -.00072 | -.00077 | -.00103 | -.00057 | -.00079 | .13049 |

(BETR13) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8080 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0080 IN. ZO
SCALE = .0380

RUN NO. 8% 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|--------|---------|---------|---------|---------|---------|--------|-----------|
| 1.202 | 102 | -4.96080 | 2005.50000 | .27740 | .27740 | .27720 | .27740 | .27720 | .27710 | .27030 | 834.80000 |
| 1.202 | 2.182 | -4.96008 | 2003.39999 | .27740 | .27580 | .27600 | .27740 | .27620 | .27600 | .27270 | 835.91000 |
| 1.203 | 4.280 | -4.97050 | 2007.89999 | .27720 | .27610 | .27620 | .27690 | .27640 | .27760 | .27520 | 835.95000 |
| 1.202 | 6.411 | -4.98140 | 2009.39999 | .27520 | .27560 | .27550 | .27560 | .27530 | .27470 | .27450 | 835.91000 |
| 1.200 | 8.553 | -4.99470 | 2007.20000 | .27330 | .27310 | .27290 | .27350 | .27290 | .27200 | .27360 | 834.40000 |
| 1.201 | 10.707 | -4.99430 | 2008.60001 | .27040 | .26990 | .26770 | .26930 | .26950 | .27030 | .27220 | 835.15000 |
| 1.201 | 12.864 | -4.93590 | 2009.39999 | .26780 | .26750 | .26800 | .26750 | .26740 | .26700 | .27020 | 835.52000 |
| 1.198 | 15.040 | -4.93550 | 2009.39999 | .26750 | .26680 | .26800 | .26750 | .26740 | .26700 | .26890 | 834.39000 |
| 1.198 | 17.199 | -4.93490 | 2009.39999 | .26700 | .26230 | .26230 | .26180 | .26160 | .26100 | .26510 | 834.55000 |
| 1.198 | 19.371 | -4.97680 | 2007.20060 | .25750 | .25780 | .25820 | .25810 | .25840 | .26210 | .26210 | 833.81000 |
| 1.197 | 21.548 | -4.97100 | 2007.89999 | .25890 | .25720 | .25880 | .25720 | .25700 | .25520 | .25890 | 833.60000 |
| 1.197 | 23.661 | -4.96730 | 2008.60001 | .25710 | .25690 | .25580 | .25750 | .25750 | .25760 | .25868 | 833.97000 |
| 1.193 | 25.779 | -4.95320 | 2008.60001 | .25130 | .25190 | .25150 | .25250 | .25240 | .25150 | .25530 | 832.78000 |
| 1.198 | 26.808 | -4.92480 | 2007.89999 | .24760 | .24760 | .24770 | .24830 | .24770 | .24790 | .25250 | 833.99000 |
| | | -.00233 | .33361 | .00010 | -.00031 | -.00024 | -.00012 | -.08019 | -.00802 | .00117 | .17903 |

RUN NO. 8% 0 RNAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|--------|--------|--------|--------|--------|---------|---------|-----------|
| 1.297 | 100 | -5.00820 | 2005.10001 | .22920 | .22910 | .22860 | .22930 | .22960 | .22940 | .24850 | 855.64000 |
| 1.297 | 2.163 | -4.98880 | 2004.39999 | .22930 | .22920 | .22860 | .22960 | .22880 | .22940 | .24000 | 855.41000 |
| 1.295 | 4.258 | -5.01570 | 2004.39999 | .22968 | .23000 | .23030 | .22980 | .23000 | .22930 | .23550 | 855.29000 |
| 1.295 | 6.381 | -4.98680 | 2005.10001 | .23070 | .23000 | .23050 | .23040 | .23050 | .23010 | .23350 | 855.40000 |
| 1.295 | 8.517 | -4.97320 | 2005.10001 | .22780 | .22850 | .22900 | .22870 | .22858 | .22890 | .23160 | 855.29000 |
| 1.294 | 10.672 | -4.95510 | 2005.10001 | .22540 | .22480 | .22550 | .22480 | .22520 | .22540 | .22860 | 855.18000 |
| 1.294 | 12.822 | -4.95100 | 2005.10001 | .22490 | .22470 | .22470 | .22470 | .22430 | .22490 | .22730 | 855.18000 |
| 1.293 | 14.935 | -4.96760 | 2005.10001 | .22230 | .22190 | .22240 | .22220 | .22190 | .22190 | .22250 | 854.95000 |
| 1.293 | 17.157 | -4.96390 | 2005.10001 | .22020 | .22020 | .22020 | .22040 | .22010 | .21950 | .22020 | 855.05000 |
| 1.293 | 19.327 | -4.98920 | 2005.10001 | .21730 | .21760 | .21710 | .21700 | .21740 | .21720 | .21800 | 854.83000 |
| 1.292 | 21.475 | -4.98650 | 2005.10001 | .21580 | .21580 | .21580 | .21560 | .21530 | .21540 | .21410 | 855.40000 |
| 1.292 | 23.617 | -4.98120 | 2005.10001 | .20810 | .20850 | .20850 | .20970 | .20950 | .20930 | .21210 | 855.86000 |
| 1.295 | 25.746 | -4.95350 | 2005.50000 | .20850 | .20910 | .20910 | .20820 | .20880 | .20690 | .20970 | 855.06000 |
| 1.293 | 26.796 | -4.93870 | 2005.10001 | .20520 | .20650 | .20670 | .20690 | .20680 | .20690 | .20970 | 855.06000 |
| | | -.00183 | -.16813 | .00010 | .00022 | .00041 | .00012 | .00010 | -.00002 | -.00313 | -.08417 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

(BE7R13) (02 AUG 76.)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. YMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = -5.000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.170

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.403 | .074 | -4.9770 | 2070.20001 | .19180 | .19180 | .19180 | .19180 | .19180 | .19180 | .18710 | 892.58000 |
| 1.404 | 2.146 | -5.0140 | 2069.50000 | .19140 | .19090 | .19100 | .19140 | .19140 | .19110 | .18930 | 892.29000 |
| 1.402 | 4.235 | -5.0120 | 2069.50000 | .19130 | .19130 | .19130 | .19130 | .19130 | .19150 | .19030 | 892.27000 |
| 1.399 | 6.362 | -4.9860 | 2070.20001 | .19230 | .19230 | .19240 | .19230 | .19230 | .19230 | .19110 | 892.53000 |
| 1.400 | 8.497 | -4.9530 | 2070.20001 | .19190 | .19200 | .19200 | .19170 | .19170 | .19150 | .19140 | 892.54000 |
| 1.40C | 10.648 | -4.9520 | 2070.20001 | .19050 | .19050 | .19050 | .19060 | .19070 | .19040 | .19120 | 892.54000 |
| 1.398 | 14.960 | -4.9570 | 2070.20001 | .18660 | .18680 | .18650 | .18700 | .18700 | .18550 | .18720 | 892.49000 |
| 1.398 | 17.126 | -4.9740 | 2070.20001 | .18460 | .18460 | .18460 | .18530 | .18450 | .18420 | .18590 | 892.49000 |
| 1.387 | 19.303 | -4.9830 | 2070.20001 | .18390 | .18390 | .18390 | .18570 | .18590 | .18340 | .18580 | 892.48000 |
| 1.398 | 21.461 | -5.0050 | 2070.89999 | .18070 | .18200 | .18100 | .18000 | .18030 | .18050 | .18340 | 892.80000 |
| 1.400 | 23.605 | -4.9340 | 2070.89999 | .17900 | .17900 | .17860 | .17930 | .17900 | .17900 | .18160 | 892.83000 |
| 1.398 | 25.736 | -4.9300 | 2070.89999 | .17530 | .17530 | .17530 | .17560 | .17560 | .17560 | .17900 | 892.80000 |
| 1.398 | 26.785 | -4.9320 | 2070.20001 | .17230 | .17170 | .17240 | .17260 | .17220 | .17190 | .17610 | 892.51000 |
| | | | | .00007 | .00003 | .00007 | .00007 | .00002 | .00002 | .00077 | .07444 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.556 | .019 | -5.61910 | 1499.39999 | .14270 | .14270 | .14270 | .14290 | .14230 | .14270 | .14270 | 637.95000 |
| 1.560 | 2.016 | -5.61980 | 1500.10001 | .14260 | .14310 | .14300 | .14270 | .14300 | .14270 | .14270 | 639.26000 |
| 1.556 | 4.095 | -5.62010 | 1500.80000 | .14290 | .14340 | .14330 | .14270 | .14340 | .14360 | .14280 | 639.56000 |
| 1.556 | 6.170 | -5.61760 | 1499.39999 | .14350 | .14320 | .14310 | .14280 | .14310 | .14310 | .14320 | 637.95000 |
| 1.556 | 8.243 | -5.61820 | 1500.80000 | .14140 | .14150 | .14150 | .14150 | .14150 | .14220 | .14180 | 639.56000 |
| 1.556 | 10.312 | -5.61750 | 1502.20000 | .14100 | .14180 | .14060 | .14100 | .14100 | .14090 | .14120 | 639.16000 |
| 1.556 | 12.399 | -5.61750 | 1497.00000 | .13730 | .13700 | .13720 | .13660 | .13670 | .13660 | .13660 | 641.27000 |
| 1.556 | 14.448 | -5.62080 | 1510.00000 | .13200 | .13170 | .13170 | .13230 | .13240 | .13200 | .13210 | 642.47000 |
| 1.556 | 16.594 | -5.62210 | 1512.10001 | .13270 | .13260 | .13140 | .13160 | .13170 | .13200 | .13190 | 643.37000 |
| 1.556 | 18.691 | -5.62210 | 1514.30000 | .13090 | .13060 | .13060 | .13060 | .13090 | .13080 | .13080 | 644.27000 |
| 1.556 | 20.726 | -5.61970 | 1513.60001 | .13670 | .13120 | .13100 | .13100 | .13090 | .13100 | .13120 | 643.97000 |
| 1.556 | 22.806 | -5.61830 | 1512.89999 | .12390 | .12370 | .12410 | .12380 | .12430 | .13060 | .12380 | 643.67000 |
| 1.555 | 24.873 | -5.61250 | 1513.60001 | .11710 | .11730 | .11730 | .11730 | .11730 | .11820 | .12380 | 643.97000 |
| 1.555 | 25.903 | -5.61240 | 1514.30000 | .11460 | .11470 | .11460 | .11450 | .11460 | .11470 | .11500 | 644.27000 |
| | | | | .00005 | .06017 | .00007 | .00012 | .00027 | .00022 | .00002 | .14717 |

(BE7R13) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-084 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AIRERON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO.
LREF = 474.8000 IN. YMRP = .0000 IN. YO.
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO.
SCALE = .0300

RUN# NO. 339/ 0 R/V/L = 3.05 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1P5F1 |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.750 | .057 | -5.44710 | 1648.60001 | .09850 | .09850 | .09880 | .09850 | .09820 | .09830 | .09800 | 663.71000 |
| 1.750 | 2.014 | -5.44800 | 1648.60001 | .09860 | .09830 | .09860 | .09810 | .09810 | .09850 | .09840 | 663.71000 |
| 1.750 | 4.059 | -5.44860 | 1649.39999 | .09750 | .09830 | .09820 | .09800 | .09790 | .09810 | .09790 | 664.00000 |
| 1.750 | 6.094 | -5.44930 | 1650.10001 | .09840 | .09830 | .09810 | .09840 | .09830 | .09840 | .09850 | 664.00000 |
| 1.750 | 8.139 | -5.45000 | 1650.10001 | .09630 | .09840 | .09840 | .09840 | .09870 | .09800 | .09780 | 664.28000 |
| 1.750 | 12.181 | -5.44960 | 1650.10001 | .09430 | .09450 | .09460 | .09430 | .09420 | .09450 | .09500 | 664.28000 |
| 1.750 | 16.338 | -5.44610 | 1649.39999 | .09370 | .09370 | .09380 | .09380 | .09380 | .09360 | .09380 | 664.00000 |
| 1.750 | 18.413 | -5.44670 | 1649.39999 | .09120 | .09080 | .09120 | .09120 | .09190 | .09190 | .09130 | 663.71000 |
| 1.750 | 20.461 | -5.44450 | 1649.39999 | .08750 | .08780 | .08760 | .08780 | .08750 | .08760 | .08760 | 664.00000 |
| 1.750 | 22.455 | -5.44160 | 1650.10001 | .08460 | .08460 | .08490 | .08460 | .08430 | .08430 | .08420 | 664.00000 |
| 1.750 | 24.472 | -5.43970 | 1649.39999 | .08000 | .07970 | .07970 | .07980 | .07980 | .07970 | .07980 | 664.00000 |
| 1.750 | 25.464 | -5.43630 | 1649.39999 | .07710 | .07740 | .07740 | .07700 | .07700 | .07700 | .07700 | 664.00000 |
| | GRADIENT | -.00027 | .20148 | -.00020 | -.00005 | -.00015 | -.00012 | -.00008 | -.00005 | -.00003 | -.07303 |

RUN# NO. 331/ 0 R/V/L = 3.05 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1P5F1 |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.997 | .044 | -5.97570 | 1809.89998 | .05930 | .05810 | .05930 | .05920 | .05910 | .05950 | .05940 | 648.87000 |
| 1.997 | 1.915 | -5.97770 | 1809.50000 | .05850 | .05830 | .05850 | .05810 | .05860 | .05860 | .05860 | 648.37000 |
| 1.997 | 3.949 | -5.97980 | 1809.20000 | .05870 | .05850 | .05860 | .05870 | .05880 | .05890 | .05870 | 648.62000 |
| 1.997 | 5.975 | -5.98080 | 1814.10001 | .05810 | .05850 | .05850 | .05840 | .05870 | .05870 | .05870 | 650.39000 |
| 1.997 | 7.991 | -5.97920 | 1804.20000 | .05730 | .05750 | .05760 | .05740 | .05740 | .05750 | .05770 | 646.85000 |
| 1.997 | 9.999 | -5.97770 | 1809.20000 | .05660 | .05650 | .05640 | .05690 | .05670 | .05630 | .05650 | 648.62000 |
| 1.997 | 11.999 | -5.97680 | 1809.89999 | .05380 | .05400 | .05360 | .05380 | .05410 | .05380 | .05410 | 648.87000 |
| 1.997 | 13.999 | -5.97470 | 1809.20000 | .05310 | .05320 | .05330 | .05310 | .05310 | .05310 | .05320 | 648.62000 |
| 1.997 | 16.007 | -5.97120 | 1809.20000 | .05360 | .05330 | .05350 | .05390 | .05350 | .05360 | .05360 | 648.87000 |
| 1.997 | 18.029 | -5.95970 | 1809.89999 | .05460 | .05430 | .05460 | .05430 | .05460 | .05460 | .05460 | 652.50000 |
| 1.997 | 20.015 | -5.95990 | 1815.60001 | .05090 | .05080 | .05090 | .05090 | .05090 | .05080 | .05080 | 650.90000 |
| 1.997 | 22.033 | -5.95640 | 1815.60001 | .04870 | .04870 | .04870 | .04860 | .04820 | .04800 | .04800 | 650.90000 |
| 1.997 | 24.034 | -5.95440 | 1815.60001 | .04660 | .04660 | .04660 | .04660 | .04690 | .04690 | .04690 | 650.90000 |
| 1.997 | 24.972 | -5.95330 | 1815.60001 | .04570 | .04570 | .04570 | .04590 | .04560 | .04560 | .04590 | 650.90000 |
| | GRADIENT | -.00080 | -.17165 | -.00015 | -.00017 | -.00012 | -.00012 | -.00007 | -.00015 | -.00018 | -.06130 |

(BETR13X (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.8800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0309

PARAMETRIC DATA

BETA =
ALPHA =
ELEVON = .000
BOFLAP = -7.170

RUN NO. 3494 01 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1PSF) |
|----------|--------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.250 | -1.138 | -6.07330 | 1999.10001 | .03640 | .03600 | .03640 | .03640 | .03620 | .03630 | .03650 | 600.54000 |
| 2.250 | 1.844 | -6.07310 | 1953.60001 | .03530 | .03560 | .03530 | .03530 | .03520 | .03510 | .03540 | 600.98000 |
| 2.250 | 3.982 | -6.07220 | 1951.30008 | .03530 | .03530 | .03580 | .03580 | .03560 | .03570 | .03586 | 601.19000 |
| 2.250 | 5.957 | -6.07170 | 1951.30000 | .03640 | .03630 | .03630 | .03630 | .03650 | .03630 | .03630 | 601.19000 |
| 2.250 | 8.009 | -6.07160 | 1951.30000 | .03400 | .03380 | .03400 | .03400 | .03400 | .03400 | .03400 | 601.19000 |
| 2.250 | 10.062 | -6.06970 | 1960.60001 | .03220 | .03220 | .03220 | .03200 | .03210 | .03230 | .03250 | 600.98000 |
| 2.250 | 12.093 | -6.06720 | 1960.60001 | .03120 | .03120 | .03120 | .03120 | .03150 | .03140 | .03150 | 600.98000 |
| 2.250 | 14.170 | -6.06550 | 1960.60001 | .03130 | .03130 | .03170 | .03160 | .03170 | .03120 | .03120 | 600.98000 |
| 2.250 | 16.297 | -6.06470 | 1960.60001 | .03180 | .03180 | .03180 | .03170 | .03168 | .03170 | .03170 | 600.98000 |
| 2.250 | 18.375 | -6.06370 | 1961.30000 | .03110 | .03090 | .03090 | .03110 | .03090 | .03090 | .03090 | 600.98000 |
| 2.250 | 20.387 | -6.06010 | 1960.60001 | .02910 | .02950 | .02950 | .02920 | .02970 | .02970 | .02970 | 600.98000 |
| 2.250 | 22.460 | -6.05730 | 1960.60001 | .02830 | .02860 | .02860 | .02870 | .02830 | .02860 | .02840 | 600.98000 |
| 2.250 | 24.511 | -6.05530 | 1960.60001 | .02660 | .02660 | .02660 | .02660 | .02660 | .02660 | .02650 | 600.98000 |
| 2.250 | 25.529 | -6.05420 | 1960.60001 | .02650 | .02700 | .02640 | .02660 | .02700 | .02690 | .02700 | 600.98000 |
| GRADIENT | | .00027 | .54320 | -.00027 | -.00022 | -.00015 | -.00015 | -.00015 | -.00015 | -.00017 | .15050 |

RUN NO. 416/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1PSF) |
|----------|--------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.499 | .103 | -4.91250 | 1429.39999 | .02910 | .02890 | .02890 | .02860 | .02850 | .02850 | .02850 | 366.38080 |
| 2.499 | 2.136 | -4.94100 | 1432.89999 | .02840 | .02820 | .02810 | .02810 | .02820 | .02820 | .02820 | 367.28080 |
| 2.499 | 4.174 | -4.95020 | 1432.20000 | .02750 | .02720 | .02720 | .02720 | .02740 | .02720 | .02740 | 367.10000 |
| 2.499 | 6.208 | -4.98270 | 1432.20000 | .02710 | .02690 | .02680 | .02680 | .02690 | .02700 | .02700 | 367.10000 |
| 2.499 | 8.248 | -5.00270 | 1432.20000 | .02700 | .02680 | .02680 | .02680 | .02660 | .02660 | .02670 | 367.28080 |
| 2.499 | 10.293 | -5.01160 | 1432.20000 | .02450 | .02450 | .02450 | .02450 | .02450 | .02450 | .02450 | 367.28080 |
| 2.499 | 12.333 | -5.04850 | 1432.20000 | .02430 | .02430 | .02430 | .02430 | .02410 | .02430 | .02490 | 368.73000 |
| 2.499 | 14.368 | -5.07950 | 1439.60001 | .02390 | .02360 | .02360 | .02360 | .02370 | .02390 | .02390 | 369.28000 |
| 2.499 | 16.411 | -5.08800 | 1440.70000 | .02340 | .02330 | .02330 | .02330 | .02330 | .02320 | .02310 | 369.10000 |
| 2.499 | 18.457 | -5.09210 | 1440.00000 | .02250 | .02250 | .02250 | .02230 | .02210 | .02210 | .02210 | 369.28080 |
| 2.499 | 20.492 | -4.99160 | 1442.89000 | .02150 | .02120 | .02120 | .02110 | .02110 | .02120 | .02120 | 369.46000 |
| 2.499 | 22.540 | -4.97910 | 1442.39999 | .02150 | .02150 | .02150 | .02130 | .02110 | .02110 | .02110 | 369.46000 |
| 2.499 | 24.577 | -4.95040 | 1442.10001 | .02070 | .02050 | .02050 | .02050 | .02070 | .02060 | .02070 | 369.54000 |
| 2.499 | 25.602 | -4.95000 | 1442.10001 | .02030 | .02000 | .02010 | .02000 | .02020 | .02020 | .02020 | 369.54000 |
| GRADIENT | | -.01171 | .68723 | -.00039 | -.00042 | -.00039 | -.00034 | -.00027 | -.00032 | -.00027 | .17673 |

TABULATED DATA - 0A16) (ARC 11-97-87-09# 1

ARC 11-97-87-09# 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAR = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XG
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 425/ 0 RN/L = 1.95 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 3.498 | .003 | -4.87980 | 1976.80000 | .01220 | .01240 | .01250 | .01240 | .01250 | .01240 | .01240 | 328.02000 |
| 3.499 | 2.033 | -4.90400 | 1975.80000 | .01230 | .01230 | .01230 | .01210 | .01200 | .01210 | .01200 | 328.02000 |
| 3.499 | 4.059 | -4.92480 | 1976.10001 | .01130 | .01130 | .01130 | .01150 | .01150 | .01150 | .01150 | 327.90000 |
| 3.499 | 6.086 | -4.94230 | 1976.80000 | .01130 | .01120 | .01110 | .01110 | .01110 | .01110 | .01110 | 328.02000 |
| 3.499 | 8.118 | -4.95350 | 1976.80000 | .01100 | .01080 | .01080 | .01070 | .01060 | .01070 | .01080 | 328.02000 |
| 3.499 | 10.155 | -4.96440 | 1976.10001 | .01060 | .01050 | .01040 | .01040 | .01030 | .01040 | .01040 | 327.90000 |
| 3.499 | 12.189 | -4.97080 | 1976.80000 | .01010 | .00970 | .00990 | .00980 | .00970 | .00980 | .00980 | 327.90000 |
| 3.499 | 14.224 | -4.97190 | 1976.10001 | .00970 | .00930 | .00960 | .00930 | .00940 | .00950 | .00950 | 328.02000 |
| 3.499 | 16.252 | -4.95960 | 1976.80000 | .00930 | .00930 | .00930 | .00900 | .00900 | .00900 | .00900 | 328.02000 |
| 3.499 | 18.292 | -4.95340 | 1976.80000 | .00920 | .00890 | .00880 | .00890 | .00890 | .00890 | .00890 | 327.90000 |
| 3.499 | 20.349 | -4.95340 | 1976.80000 | .00860 | .00840 | .00830 | .00830 | .00830 | .00830 | .00830 | 327.90000 |
| 3.499 | 22.365 | -4.93680 | 1976.10001 | .00860 | .00840 | .00810 | .00840 | .00810 | .00830 | .00830 | 327.90000 |
| 3.499 | 24.391 | -4.92140 | 1976.10001 | .00820 | .00820 | .00800 | .00800 | .00800 | .00820 | .00820 | 328.02000 |
| 3.499 | 26.409 | -4.91070 | 1975.80000 | .00820 | .00820 | .00800 | .00800 | .00800 | .00820 | .00820 | 328.02000 |
| 3.499 | 28.427 | -4.9124 | 17253 | .00022 | .00022 | .00022 | .00022 | .00022 | .00022 | .00022 | 328.02000 |

RUN NO. 428/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 3.498 | -1.188 | -5.09300 | 2645.20001 | .00740 | .00720 | .00720 | .00710 | .00720 | .00720 | .00720 | 297.70000 |
| 3.499 | 1.834 | -5.11870 | 2642.39999 | .00730 | .00730 | .00730 | .00710 | .00710 | .00710 | .00710 | 297.70000 |
| 3.499 | 3.856 | -5.13980 | 2641.70001 | .00650 | .00650 | .00650 | .00630 | .00630 | .00630 | .00630 | 297.70000 |
| 3.499 | 5.888 | -5.15920 | 2643.10001 | .00630 | .00630 | .00630 | .00640 | .00640 | .00630 | .00630 | 297.70000 |
| 3.499 | 7.909 | -5.17750 | 2641.20001 | .00600 | .00600 | .00590 | .00590 | .00590 | .00590 | .00590 | 297.70000 |
| 3.499 | 9.947 | -5.17800 | 2642.39999 | .00550 | .00550 | .00550 | .00550 | .00550 | .00550 | .00550 | 297.70000 |
| 3.499 | 11.965 | -5.18540 | 2640.89999 | .00500 | .00500 | .00500 | .00500 | .00500 | .00500 | .00500 | 297.70000 |
| 3.499 | 13.998 | -5.18520 | 2642.39999 | .00500 | .00500 | .00500 | .00500 | .00500 | .00500 | .00500 | 297.70000 |
| 3.499 | 16.035 | -5.18520 | 2639.50000 | .00530 | .00530 | .00520 | .00530 | .00530 | .00530 | .00530 | 297.70000 |
| 3.499 | 18.061 | -5.17660 | 2642.39999 | .00530 | .00530 | .00520 | .00520 | .00520 | .00520 | .00520 | 297.70000 |
| 3.499 | 20.087 | -5.16850 | 2640.20001 | .00530 | .00530 | .00510 | .00510 | .00510 | .00510 | .00510 | 297.70000 |
| 3.499 | 22.118 | -5.15420 | 2641.70001 | .00510 | .00510 | .00500 | .00510 | .00510 | .00510 | .00510 | 297.70000 |
| 3.499 | 24.147 | -5.13570 | 2640.20001 | .00440 | .00440 | .00430 | .00430 | .00430 | .00440 | .00440 | 297.70000 |
| 3.499 | 26.170 | -5.12480 | 2641.70001 | .00480 | .00480 | .00470 | .00470 | .00470 | .00480 | .00480 | 297.70000 |
| 3.499 | 28.193 | -5.10958 | 186539 | .00022 | .00022 | .00022 | .00022 | .00022 | .00022 | .00022 | 297.70000 |

TABULATED DATA - 0A161 (ARC 11-57-87-094)
ARC 11-57-87-094 0A161 ORBITTER

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AIRLEN = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO.
LREF = 474.8000 IN. YMRP = .0000 IN. YO.
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0380

RUN NO. 30/ 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | PT9/PT | PT10/PT |
|------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| .598 | .084 | -1.84760 | 2584.29999 | .74680 | .74680 | .74680 | .74680 | .74680 | .74730 | .74050 | .74730 | .74730 | .74730 |
| .599 | 2.128 | -1.85510 | 2593.00000 | .74670 | .74670 | .74680 | .74680 | .74680 | .74640 | .74310 | .74640 | .74640 | .74640 |
| .600 | 4.182 | -1.84370 | 2595.00000 | .74710 | .74710 | .74740 | .74740 | .74740 | .74530 | .74450 | .74530 | .74530 | .74530 |
| .597 | 6.257 | -1.84520 | 2595.00000 | .74650 | .74650 | .74650 | .74650 | .74650 | .74590 | .74510 | .74590 | .74590 | .74590 |
| .598 | 8.342 | -1.84450 | 2595.00000 | .74680 | .74680 | .74680 | .74680 | .74680 | .74590 | .74510 | .74590 | .74590 | .74590 |
| .597 | 10.452 | -1.84150 | 2595.00000 | .74570 | .74570 | .74570 | .74570 | .74570 | .74480 | .74400 | .74480 | .74480 | .74480 |
| .599 | 12.576 | -1.83920 | 2595.00000 | .74370 | .74370 | .74370 | .74370 | .74370 | .74280 | .74200 | .74280 | .74280 | .74280 |
| .597 | 14.666 | -1.83550 | 2595.00000 | .74040 | .74040 | .74040 | .74040 | .74040 | .73710 | .73380 | .73710 | .73710 | .73710 |
| .597 | 16.802 | -1.85920 | 2594.29999 | .73220 | .73220 | .73180 | .73180 | .73180 | .72850 | .72520 | .72850 | .72850 | .72850 |
| .597 | 18.927 | -1.85920 | 2594.29999 | .73170 | .73170 | .72910 | .72910 | .72910 | .72580 | .72250 | .72580 | .72580 | .72580 |
| .596 | 21.044 | -1.86110 | 2595.00000 | .72840 | .72840 | .72300 | .72300 | .72300 | .71970 | .71640 | .71970 | .71970 | .71970 |
| .597 | 23.129 | -1.84630 | 2595.00000 | .72380 | .72380 | .71740 | .71740 | .71740 | .71410 | .71080 | .71410 | .71410 | .71410 |
| .599 | 25.204 | -1.92160 | 2595.00000 | .71730 | .71730 | .71090 | .71090 | .71090 | .70760 | .70430 | .70760 | .70760 | .70760 |
| .597 | 26.100 | -1.77990 | 2595.79000 | .71740 | .71740 | .71100 | .71100 | .71100 | .70770 | .70440 | .70770 | .70770 | .70770 |
| | | .00096 | .17066 | .00007 | .00007 | .00000 | .00000 | .00013 | .00005 | .00098 | .00005 | .00005 | .00005 |

GRADIENT

RUN NO. 35/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | PT9/PT | PT10/PT |
|------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| .599 | .037 | -1.87870 | 2345.29999 | .67360 | .67340 | .67220 | .67320 | .67320 | .67270 | .67290 | .67270 | .67270 | .67270 |
| .599 | 2.127 | -1.85290 | 2345.29999 | .67240 | .67270 | .67270 | .67280 | .67280 | .67250 | .67290 | .67250 | .67250 | .67250 |
| .598 | 4.193 | -1.83360 | 2344.60001 | .67220 | .67330 | .67340 | .67340 | .67340 | .67330 | .67300 | .67330 | .67330 | .67330 |
| .595 | 6.285 | -1.83360 | 2344.60001 | .67400 | .67340 | .67370 | .67340 | .67340 | .67290 | .67340 | .67290 | .67290 | .67290 |
| .595 | 8.395 | -1.84710 | 2345.29999 | .67250 | .67330 | .67390 | .67390 | .67390 | .67360 | .67400 | .67360 | .67360 | .67360 |
| .597 | 10.511 | -1.83760 | 2345.29999 | .67130 | .67150 | .67090 | .67110 | .67110 | .66950 | .67030 | .66950 | .66950 | .66950 |
| .597 | 12.329 | -1.83200 | 2344.60001 | .67020 | .66920 | .66960 | .66980 | .66980 | .66810 | .66930 | .66810 | .66810 | .66810 |
| .597 | 14.739 | -1.81440 | 2344.60001 | .66640 | .66500 | .66590 | .66620 | .66620 | .66450 | .66570 | .66450 | .66450 | .66450 |
| .599 | 16.681 | -1.87450 | 2344.60001 | .66200 | .66160 | .66220 | .66220 | .66220 | .66050 | .66170 | .66050 | .66050 | .66050 |
| .597 | 19.016 | -1.87560 | 2344.60001 | .65650 | .65630 | .65630 | .65630 | .65630 | .65460 | .65580 | .65460 | .65460 | .65460 |
| .595 | 21.151 | -1.86970 | 2344.60001 | .65280 | .65240 | .65240 | .65240 | .65240 | .65070 | .65190 | .65070 | .65070 | .65070 |
| .595 | 23.293 | -1.85290 | 2344.60001 | .64610 | .64620 | .64620 | .64620 | .64620 | .64450 | .64570 | .64450 | .64450 | .64450 |
| .599 | 25.293 | -1.82400 | 2343.89999 | .63110 | .63100 | .63100 | .63100 | .63100 | .62930 | .63050 | .62930 | .62930 | .62930 |
| .599 | 25.248 | -1.77220 | 2343.89999 | .62280 | .62370 | .62580 | .62580 | .62580 | .62410 | .62530 | .62410 | .62410 | .62410 |
| | | .00855 | .17138 | .00034 | .00002 | .00059 | .00002 | .00002 | .00003 | .00859 | .00003 | .00003 | .00003 |

GRADIENT

(BETRI*) (02 AUG 75)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ANLON = .000 BOTLAP = .170

TABULATED DATA - 0A161 (ARC 11-97-87-09+)

ARC 11-97-87-09+ 0A161 ORBITER

REFERENCE DATA

SPEF = 2893.0000 SO.FT. XMRP = 1076.6808 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUNV NO. 424 0 RMVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | PT9/PT | PT10/PT |
|------|--------|----------|------------|--------|---------|---------|--------|--------|--------|--------|--------|--------|---------|
| .738 | .082 | -1.89950 | 2206.0000 | .59640 | .59580 | .59520 | .59460 | .59400 | .59340 | .59280 | .59220 | .59160 | .59100 |
| .739 | 2.131 | -1.86500 | 2205.7500 | .59490 | .59430 | .59370 | .59310 | .59250 | .59190 | .59130 | .59070 | .59010 | .58950 |
| .797 | 4.214 | -1.85390 | 2207.38999 | .59640 | .59580 | .59520 | .59460 | .59400 | .59340 | .59280 | .59220 | .59160 | .59100 |
| .799 | 6.325 | -1.84360 | 2207.39999 | .59730 | .59670 | .59610 | .59550 | .59490 | .59430 | .59370 | .59310 | .59250 | .59190 |
| .798 | 8.431 | -1.84770 | 2208.10001 | .59690 | .59630 | .59570 | .59510 | .59450 | .59390 | .59330 | .59270 | .59210 | .59150 |
| .797 | 10.556 | -1.83970 | 2208.10001 | .59480 | .59420 | .59360 | .59300 | .59240 | .59180 | .59120 | .59060 | .59000 | .58940 |
| .798 | 12.681 | -1.83290 | 2208.79399 | .58940 | .58880 | .58820 | .58760 | .58700 | .58640 | .58580 | .58520 | .58460 | .58400 |
| .799 | 14.792 | -1.82290 | 2208.10001 | .58480 | .58420 | .58360 | .58300 | .58240 | .58180 | .58120 | .58060 | .58000 | .57940 |
| .798 | 16.961 | -1.87900 | 2208.79999 | .57940 | .57880 | .57820 | .57760 | .57700 | .57640 | .57580 | .57520 | .57460 | .57400 |
| .799 | 19.112 | -1.87240 | 2208.79999 | .57470 | .57410 | .57350 | .57290 | .57230 | .57170 | .57110 | .57050 | .56990 | .56930 |
| .797 | 21.253 | -1.86340 | 2208.79999 | .56720 | .56660 | .56600 | .56540 | .56480 | .56420 | .56360 | .56300 | .56240 | .56180 |
| .797 | 23.336 | -1.84570 | 2208.79999 | .55410 | .55350 | .55290 | .55230 | .55170 | .55110 | .55050 | .54990 | .54930 | .54870 |
| .799 | 25.367 | -1.82470 | 2208.79999 | .53280 | .53220 | .53160 | .53100 | .53040 | .52980 | .52920 | .52860 | .52800 | .52740 |
| .798 | 26.313 | -1.78400 | 2208.79399 | .52670 | .52610 | .52550 | .52490 | .52430 | .52370 | .52310 | .52250 | .52190 | .52130 |
| | | .00861 | .33884 | .00000 | -.00007 | -.00014 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 |

GRADIENT

FCAL NO. 45/ 0 RMVL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT | PT9/PT | PT10/PT |
|------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| .847 | .063 | -1.86340 | 2155.79399 | .55580 | .55520 | .55460 | .55400 | .55340 | .55280 | .55220 | .55160 | .55100 | .55040 |
| .848 | 2.135 | -1.85080 | 2156.50000 | .55540 | .55480 | .55420 | .55360 | .55300 | .55240 | .55180 | .55120 | .55060 | .55000 |
| .847 | 4.229 | -1.85240 | 2155.79399 | .55780 | .55720 | .55660 | .55600 | .55540 | .55480 | .55420 | .55360 | .55300 | .55240 |
| .847 | 6.338 | -1.84680 | 2157.20001 | .55640 | .55580 | .55520 | .55460 | .55400 | .55340 | .55280 | .55220 | .55160 | .55100 |
| .847 | 8.444 | -1.84150 | 2156.50000 | .55690 | .55630 | .55570 | .55510 | .55450 | .55390 | .55330 | .55270 | .55210 | .55150 |
| .847 | 10.574 | -1.83050 | 2155.50000 | .55560 | .55500 | .55440 | .55380 | .55320 | .55260 | .55200 | .55140 | .55080 | .55020 |
| .849 | 12.701 | -1.82810 | 2157.20001 | .54940 | .54880 | .54820 | .54760 | .54700 | .54640 | .54580 | .54520 | .54460 | .54400 |
| .847 | 14.816 | -1.83430 | 2155.50000 | .54440 | .54380 | .54320 | .54260 | .54200 | .54140 | .54080 | .54020 | .53960 | .53900 |
| .849 | 16.985 | -1.88790 | 2157.20001 | .53850 | .53790 | .53730 | .53670 | .53610 | .53550 | .53490 | .53430 | .53370 | .53310 |
| .847 | 19.145 | -1.87670 | 2157.89399 | .53180 | .53120 | .53060 | .53000 | .52940 | .52880 | .52820 | .52760 | .52700 | .52640 |
| .846 | 21.274 | -1.86540 | 2157.20001 | .52250 | .52190 | .52130 | .52070 | .52010 | .51950 | .51890 | .51830 | .51770 | .51710 |
| .846 | 23.372 | -1.85220 | 2157.20001 | .50460 | .50400 | .50340 | .50280 | .50220 | .50160 | .50100 | .50040 | .49980 | .49920 |
| .847 | 25.397 | -1.83610 | 2157.20001 | .48210 | .48150 | .48090 | .48030 | .47970 | .47910 | .47850 | .47790 | .47730 | .47670 |
| .849 | 26.363 | -1.79210 | 2157.20001 | .47890 | .47830 | .47770 | .47710 | .47650 | .47590 | .47530 | .47470 | .47410 | .47350 |
| | | .00264 | -.00032 | .00048 | .00055 | .00069 | .00066 | .00066 | .00066 | .00066 | .00066 | .00066 | .00066 |

GRADIENT

(BETRI4) 1 02 AUG 76

TABULATED DATA - OAI61 (ARC 11-97-87-884)

ARC 11-97-87-894 OAI61 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 AILRON = .000 ECFZAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT |
|------|--------|----------|------------|--------|--------|--------|--------|--------|---------|--------|--------|
| .932 | .083 | -1.90310 | 2127.50000 | .51440 | .51550 | .51600 | .51650 | .51940 | .51680 | .48360 | .48360 |
| .902 | 2.158 | -1.87480 | 2127.50000 | .51570 | .51500 | .51360 | .51400 | .51510 | .51540 | .50310 | .50310 |
| .899 | 4.250 | -1.86130 | 2127.50000 | .51780 | .51780 | .51770 | .51770 | .51770 | .51610 | .50880 | .50880 |
| .900 | 6.351 | -1.84870 | 2128.20001 | .51740 | .51730 | .51740 | .51730 | .51730 | .51520 | .51190 | .51190 |
| .899 | 8.466 | -1.84550 | 2126.79999 | .51810 | .51780 | .51830 | .51780 | .51810 | .51920 | .51440 | .51440 |
| .900 | 10.607 | -1.83980 | 2128.20001 | .51300 | .51240 | .51150 | .51290 | .51290 | .51250 | .51370 | .51370 |
| .900 | 14.851 | -1.82660 | 2127.50000 | .50290 | .50060 | .50030 | .50090 | .50680 | .50540 | .50560 | .50560 |
| .900 | 17.041 | -1.86970 | 2127.50000 | .49520 | .49550 | .49390 | .49310 | .49450 | .49450 | .50100 | .50100 |
| .893 | 19.211 | -1.88120 | 2127.50000 | .48440 | .46650 | .46650 | .48500 | .48450 | .48310 | .48310 | .48310 |
| .902 | 21.354 | -1.87480 | 2129.60001 | .45550 | .46550 | .46430 | .46520 | .46570 | .46540 | .48330 | .48330 |
| .897 | 23.427 | -1.85470 | 2127.50000 | .43950 | .43040 | .43050 | .43180 | .44770 | .44770 | .46610 | .46610 |
| .901 | 25.491 | -1.82380 | 2128.20001 | .42390 | .43040 | .43050 | .43180 | .43170 | .43100 | .45120 | .45120 |
| .902 | 26.491 | -1.77350 | 2129.20001 | .42620 | .42820 | .42610 | .42620 | .42570 | .42310 | .45220 | .45220 |
| | | .01003 | -.00002 | .00082 | .00055 | .00741 | .00029 | .00055 | -.00017 | .00365 | .00365 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT |
|------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| .950 | .061 | -1.85510 | 2085.70001 | .46470 | .46290 | .46330 | .46460 | .46690 | .46700 | .44480 | .44480 |
| .951 | 2.164 | -1.87030 | 2085.00000 | .46440 | .46430 | .46400 | .46330 | .46210 | .46430 | .45390 | .45390 |
| .948 | 4.269 | -1.85910 | 2084.29999 | .46760 | .46540 | .46470 | .46710 | .46750 | .46760 | .46030 | .46030 |
| .949 | 6.394 | -1.85120 | 2085.70001 | .46520 | .46640 | .46490 | .46530 | .46530 | .46330 | .46120 | .46120 |
| .949 | 8.518 | -1.84570 | 2085.00000 | .46890 | .46730 | .46900 | .46900 | .46820 | .46820 | .46350 | .46350 |
| .949 | 10.660 | -1.83150 | 2085.70001 | .45980 | .46300 | .46394 | .46050 | .45960 | .45970 | .46090 | .46090 |
| .949 | 12.796 | -1.81170 | 2085.70001 | .45620 | .45570 | .45540 | .45500 | .45140 | .44560 | .45560 | .45560 |
| .949 | 14.929 | -1.83640 | 2085.00000 | .44430 | .44360 | .44330 | .44170 | .44230 | .44560 | .45320 | .45320 |
| .949 | 17.128 | -1.91230 | 2085.00000 | .43420 | .43490 | .43380 | .43490 | .43490 | .43330 | .44360 | .44360 |
| .946 | 19.236 | -1.90590 | 2085.70001 | .42800 | .42910 | .42850 | .42800 | .42650 | .42500 | .43550 | .43550 |
| .947 | 21.440 | -1.87580 | 2085.70001 | .41740 | .41690 | .41560 | .41450 | .41620 | .42750 | .42750 | .42750 |
| .946 | 23.525 | -1.86860 | 2085.00000 | .40090 | .39860 | .39740 | .39890 | .39850 | .39920 | .40490 | .40490 |
| .946 | 25.586 | -1.81360 | 2085.00000 | .38560 | .38500 | .38440 | .38440 | .38200 | .38420 | .40100 | .40100 |
| .946 | 26.576 | -1.78120 | 2085.70001 | .37820 | .37850 | .37850 | .37850 | .37950 | .37950 | .39270 | .39270 |
| | | -.00047 | -.33273 | .00069 | .00059 | .00033 | .00059 | .00014 | .00014 | .00368 | .00368 |

GRADIENT INTERVAL = -5.00/ 5.00

GRADIENT INTERVAL = -5.00/ 5.00

TABULATED DATA - OAT161 (ARC 11-97-87-094)

ARC 11-97-87-094 OAT161 ORBITER

(BETRI4) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ATLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2580.0900 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 956.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 634 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|------|----------|----------|------------|--------|---------|--------|--------|---------|--------|--------|-----------|
| .981 | .092 | -1.89900 | 2073.70001 | .42490 | .42440 | .42430 | .42400 | .42580 | .42370 | .40540 | 754.44000 |
| .980 | 2.172 | -1.87160 | 2073.00000 | .42410 | .42530 | .42490 | .42640 | .42550 | .42480 | .41480 | 753.24000 |
| .979 | 4.274 | -1.86280 | 2076.50000 | .42658 | .42420 | .42450 | .42578 | .42460 | .42340 | .41930 | 754.42000 |
| .978 | 6.403 | -1.84810 | 2077.29999 | .42030 | .42030 | .41920 | .1860 | .41920 | .42200 | .42120 | 754.50000 |
| .977 | 8.539 | -1.83520 | 2074.39999 | .41950 | .41950 | .41950 | .41990 | .41720 | .42020 | .42120 | 752.29000 |
| .976 | 10.692 | -1.81750 | 2075.10001 | .41790 | .41680 | .41800 | .41740 | .41650 | .41800 | .41910 | 752.75000 |
| .975 | 12.849 | -1.81010 | 2076.00000 | .41290 | .41210 | .41000 | .40760 | .40750 | .40800 | .41390 | 754.96000 |
| .974 | 14.978 | -1.83410 | 2075.10001 | .40720 | .40740 | .40300 | .40326 | .40270 | .40400 | .41010 | 752.75000 |
| .973 | 17.185 | -1.90260 | 2075.10001 | .39890 | .39810 | .39860 | .39880 | .39790 | .39810 | .40380 | 753.12000 |
| .972 | 19.359 | -1.88280 | 2077.29999 | .38990 | .38990 | .39040 | .39040 | .39190 | .39030 | .39750 | 753.76000 |
| .971 | 21.496 | -1.87600 | 2072.29999 | .38130 | .38130 | .39040 | .38930 | .38920 | .39010 | .39450 | 749.04000 |
| .970 | 23.616 | -1.84820 | 2078.00000 | .37220 | .37330 | .37160 | .37340 | .37010 | .37040 | .38596 | 753.47000 |
| .969 | 25.660 | -1.81410 | 2074.39999 | .35810 | .35770 | .35820 | .35760 | .35740 | .35850 | .37270 | 752.67000 |
| .968 | 26.647 | -1.77430 | 2073.70001 | .35170 | .35110 | .35060 | .35040 | .35010 | .35040 | .36350 | 752.59000 |
| .978 | GRADIENT | .00865 | .67117 | .00038 | -.09005 | .00005 | .00041 | -.00031 | .00041 | .00332 | -.00384 |

RUN NO. 664 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|----------|------------|--------|--------|---------|--------|---------|---------|--------|-----------|
| 1.054 | .065 | -1.85270 | 2039.80000 | .35940 | .35850 | .35950 | .35790 | .36010 | .36070 | .34550 | 785.92000 |
| 1.051 | 2.178 | -1.86420 | 2039.80000 | .35900 | .35978 | .35960 | .35670 | .36000 | .35850 | .35180 | 784.04000 |
| 1.052 | 4.290 | -1.84350 | 2043.30000 | .35890 | .35890 | .35930 | .35940 | .35860 | .35860 | .35470 | 786.48000 |
| 1.049 | 6.419 | -1.85210 | 2039.10001 | .35990 | .35730 | .35920 | .35990 | .35880 | .35860 | .35740 | 782.99000 |
| 1.046 | 8.568 | -1.84190 | 2038.39999 | .35990 | .35020 | .35900 | .35780 | .35780 | .35670 | .35770 | 780.98000 |
| 1.052 | 10.721 | -1.82490 | 2044.00000 | .35100 | .35090 | .35090 | .35130 | .35020 | .35010 | .35410 | 786.60000 |
| 1.047 | 12.864 | -1.81710 | 2039.10001 | .35030 | .35100 | .35000 | .34980 | .34900 | .34870 | .35260 | 781.72000 |
| 1.047 | 15.017 | -1.85010 | 2039.10001 | .34390 | .34408 | .34100 | .34330 | .34260 | .34280 | .34878 | 781.72000 |
| 1.049 | 17.238 | -1.90210 | 2044.00000 | .33690 | .33680 | .33480 | .33450 | .33480 | .33600 | .34238 | 784.72000 |
| 1.046 | 19.416 | -1.88440 | 2040.50000 | .33200 | .33280 | .33280 | .33280 | .33340 | .33230 | .33790 | 781.99000 |
| 1.044 | 21.576 | -1.88090 | 2039.80000 | .32380 | .32450 | .32290 | .32280 | .32280 | .32300 | .33100 | 780.25000 |
| 1.044 | 23.697 | -1.86760 | 2043.30000 | .31820 | .31760 | .31720 | .31690 | .31660 | .31660 | .32420 | 781.76000 |
| 1.051 | 25.768 | -1.82970 | 2042.60001 | .30910 | .30910 | .30780 | .30890 | .30810 | .30710 | .31660 | 785.44000 |
| 1.048 | 26.753 | -1.76710 | 2039.80000 | .30330 | .30330 | .30260 | .30320 | .30390 | .30390 | .31080 | 782.78000 |
| 1.048 | GRADIENT | .00218 | .82845 | .00012 | .00007 | -.06005 | .00036 | -.00036 | -.00036 | .00218 | .13460 |

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LPEF = 478.6000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA =
ALTRON =
-2.000 ELEVON = .000
.000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O/PSE1 |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.100 | .086 | -1.90230 | 2013.68000 | .33630 | .33640 | .33640 | .33570 | .33570 | .33600 | .32320 | 798.71000 |
| 1.100 | 2.170 | -1.86700 | 2014.30000 | .33670 | .33670 | .33670 | .33600 | .33570 | .33610 | .32850 | 799.12000 |
| 1.100 | 4.289 | -1.83850 | 2015.00000 | .33410 | .33470 | .33450 | .33450 | .33450 | .33460 | .33100 | 799.25000 |
| 1.098 | 6.476 | -1.81620 | 2014.30000 | .33420 | .33400 | .33400 | .33430 | .33400 | .33400 | .33250 | 798.02000 |
| 1.098 | 8.559 | -1.83520 | 2015.00000 | .33250 | .33250 | .33250 | .33240 | .33250 | .33240 | .33210 | 798.42000 |
| 1.098 | 10.719 | -1.82530 | 2015.00000 | .33050 | .33050 | .33050 | .33040 | .33050 | .33040 | .33020 | 798.42000 |
| 1.098 | 12.871 | -1.81090 | 2014.30000 | .32670 | .32660 | .32640 | .32620 | .32580 | .32580 | .32480 | 799.23000 |
| 1.097 | 15.031 | -1.85350 | 2015.00000 | .31930 | .31930 | .31930 | .31880 | .31930 | .31860 | .32480 | 797.87000 |
| 1.097 | 17.249 | -1.93770 | 2014.30000 | .31540 | .31550 | .31580 | .31610 | .31650 | .31600 | .32110 | 797.74000 |
| 1.099 | 19.427 | -1.83760 | 2015.70000 | .31040 | .31050 | .31100 | .31050 | .31050 | .30980 | .31600 | 799.11000 |
| 1.099 | 21.581 | -1.87346 | 2017.10001 | .30160 | .30190 | .30190 | .30150 | .30190 | .30160 | .30950 | 798.93000 |
| 1.099 | 23.694 | -1.86710 | 2016.39999 | .30010 | .30050 | .30030 | .30050 | .30070 | .30040 | .30600 | 799.52000 |
| 1.098 | 25.782 | -1.82550 | 2015.70000 | .28830 | .28830 | .28880 | .28810 | .28770 | .28820 | .29240 | 798.83000 |
| 1.098 | 26.770 | -1.75880 | 2015.00000 | .28580 | .28590 | .28670 | .28580 | .28560 | .28620 | .29310 | 798.42000 |
| | GRADIENT | .01517 | .33308 | -.00057 | -.00038 | -.00045 | -.00029 | -.00033 | -.00033 | .00185 | .12830 |

RUN NO. 76/ C

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O/PSE1 |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.150 | .060 | -1.86070 | 2801.68001 | .31000 | .30950 | .31130 | .31090 | .31120 | .31170 | .30050 | 814.94000 |
| 1.150 | 2.160 | -1.86400 | 2802.30000 | .30940 | .30930 | .30910 | .31020 | .30940 | .30870 | .30480 | 819.33000 |
| 1.150 | 4.270 | -1.85000 | 2805.10001 | .30660 | .30650 | .30910 | .30800 | .30960 | .30780 | .30670 | 816.42000 |
| 1.148 | 6.402 | -1.85520 | 2805.00000 | .30510 | .30720 | .30840 | .30860 | .30690 | .30550 | .30610 | 814.78000 |
| 1.148 | 8.549 | -1.84070 | 2804.39999 | .30540 | .30410 | .30590 | .31590 | .30670 | .30570 | .30570 | 815.32000 |
| 1.148 | 10.714 | -1.82780 | 2803.70000 | .30300 | .30310 | .30440 | .30460 | .30500 | .30440 | .30440 | 815.17000 |
| 1.147 | 12.866 | -1.82300 | 2803.70000 | .30060 | .29640 | .29900 | .30080 | .30090 | .29900 | .30170 | 814.69000 |
| 1.148 | 15.022 | -1.85900 | 2803.00000 | .29710 | .29640 | .29720 | .29740 | .29670 | .29540 | .29200 | 814.93000 |
| 1.149 | 17.237 | -1.90890 | 2804.39999 | .29110 | .29170 | .29060 | .29040 | .29110 | .29060 | .29500 | 815.79000 |
| 1.149 | 19.411 | -1.89990 | 2803.00000 | .28930 | .28990 | .29050 | .29020 | .28930 | .28950 | .29320 | 815.25000 |
| 1.151 | 21.565 | -1.88330 | 2805.10001 | .28440 | .28440 | .28410 | .28340 | .28340 | .28490 | .28880 | 816.69000 |
| 1.150 | 23.681 | -1.86080 | 2803.90000 | .28250 | .28200 | .28270 | .28270 | .28240 | .28190 | .28650 | 815.49000 |
| 1.150 | 25.779 | -1.83030 | 2804.39999 | .26990 | .26980 | .26980 | .27010 | .27010 | .27110 | .27950 | 816.27000 |
| 1.146 | 25.787 | -1.77950 | 2803.70000 | .27200 | .27200 | .27220 | .27140 | .27160 | .27230 | .27640 | 814.21000 |
| | GRADIENT | .00259 | .83186 | -.00081 | -.00071 | -.00052 | -.00059 | -.00058 | -.00078 | .00121 | .39172 |

RUN NO. 75/ C

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O/PSE1 |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.150 | .060 | -1.86070 | 2801.68001 | .31000 | .30950 | .31130 | .31090 | .31120 | .31170 | .30050 | 814.94000 |
| 1.150 | 2.160 | -1.86400 | 2802.30000 | .30940 | .30930 | .30910 | .31020 | .30940 | .30870 | .30480 | 819.33000 |
| 1.150 | 4.270 | -1.85000 | 2805.10001 | .30660 | .30650 | .30910 | .30800 | .30960 | .30780 | .30670 | 816.42000 |
| 1.148 | 6.402 | -1.85520 | 2805.00000 | .30510 | .30720 | .30840 | .30860 | .30690 | .30550 | .30610 | 814.78000 |
| 1.148 | 8.549 | -1.84070 | 2804.39999 | .30540 | .30410 | .30590 | .31590 | .30670 | .30570 | .30570 | 815.32000 |
| 1.148 | 10.714 | -1.82780 | 2803.70000 | .30300 | .30310 | .30440 | .30460 | .30500 | .30440 | .30440 | 815.17000 |
| 1.147 | 12.866 | -1.82300 | 2803.70000 | .30060 | .29640 | .29900 | .30080 | .30090 | .29900 | .30170 | 814.69000 |
| 1.148 | 15.022 | -1.85900 | 2803.00000 | .29710 | .29640 | .29720 | .29740 | .29670 | .29540 | .29200 | 814.93000 |
| 1.149 | 17.237 | -1.90890 | 2804.39999 | .29110 | .29170 | .29060 | .29040 | .29110 | .29060 | .29500 | 815.79000 |
| 1.149 | 19.411 | -1.89990 | 2803.00000 | .28930 | .28990 | .29050 | .29020 | .28930 | .28950 | .29320 | 815.25000 |
| 1.151 | 21.565 | -1.88330 | 2805.10001 | .28440 | .28440 | .28410 | .28340 | .28340 | .28490 | .28880 | 816.69000 |
| 1.150 | 23.681 | -1.86080 | 2803.90000 | .28250 | .28200 | .28270 | .28270 | .28240 | .28190 | .28650 | 815.49000 |
| 1.150 | 25.779 | -1.83030 | 2804.39999 | .26990 | .26980 | .26980 | .27010 | .27010 | .27110 | .27950 | 816.27000 |
| 1.146 | 25.787 | -1.77950 | 2803.70000 | .27200 | .27200 | .27220 | .27140 | .27160 | .27230 | .27640 | 814.21000 |
| | GRADIENT | .00259 | .83186 | -.00081 | -.00071 | -.00052 | -.00059 | -.00058 | -.00078 | .00121 | .39172 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

(BEZ14) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AHLROM = .000 BDFLAP = -7.170

BETA = -5.00/ 5.00

GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XG
LRDF = 474.8000 IN. YMRP = .0000 IN. YD
BRF = 936.6800 IN. ZMRP = 375.0000 IN. ZD
SCALE = .0300

RUN NO. 834 0

RN/L = 4.25

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PI | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|-------|--------|----------|------------|---------|---------|---------|---------|--------|---------|--------|-----------|
| 1.201 | .084 | -1.89680 | 2007.20000 | .28040 | .28040 | .28050 | .28000 | .27960 | .28040 | .27290 | 834.59000 |
| 1.202 | 2.153 | -1.87610 | 2007.89999 | .28060 | .28060 | .28120 | .27980 | .27980 | .27990 | .27610 | 835.16000 |
| 1.199 | 4.262 | -1.87400 | 2007.20000 | .27980 | .27980 | .27890 | .27910 | .28000 | .27900 | .27750 | 834.01000 |
| 1.198 | 6.390 | -1.85460 | 2006.50000 | .27840 | .27720 | .27780 | .27780 | .27770 | .27770 | .27750 | 833.44000 |
| 1.196 | 8.549 | -1.82470 | 2007.89999 | .27810 | .27810 | .27830 | .27770 | .27770 | .27770 | .27720 | 833.40000 |
| 1.192 | 10.711 | -1.81900 | 2007.20000 | .27530 | .27510 | .27640 | .27550 | .27520 | .27520 | .27410 | 833.62000 |
| 1.197 | 12.861 | -1.82560 | 2007.20000 | .27170 | .27210 | .27200 | .27110 | .27150 | .27150 | .27410 | 833.42000 |
| 1.202 | 15.014 | -1.86360 | 2007.89999 | .26400 | .26400 | .26380 | .26430 | .26370 | .26370 | .26930 | 835.16000 |
| 1.200 | 17.231 | -1.92200 | 2007.20000 | .25980 | .25080 | .26010 | .25970 | .26060 | .25980 | .26580 | 834.40000 |
| 1.197 | 19.408 | -1.89700 | 2007.89999 | .25960 | .25980 | .25900 | .25920 | .25900 | .25910 | .26240 | 833.69000 |
| 1.197 | 21.559 | -1.88270 | 2007.89999 | .25740 | .25880 | .25820 | .25910 | .25860 | .25850 | .26080 | 833.60000 |
| 1.197 | 23.682 | -1.86750 | 2007.89999 | .25760 | .25740 | .25620 | .25640 | .25570 | .25700 | .25930 | 833.60000 |
| 1.195 | 25.784 | -1.83630 | 2007.89999 | .25030 | .25020 | .24990 | .24950 | .24990 | .24920 | .25430 | 833.60000 |
| 1.197 | 26.841 | -1.81110 | 2008.50001 | .24740 | .24740 | .24720 | .24760 | .24640 | .24610 | .25070 | 833.97000 |
| | | .00544 | -.00156 | -.00019 | -.00037 | -.00039 | -.00022 | .00010 | -.00034 | .00110 | -.14011 |

RUN NO. 864 0

RN/L = 4.25

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PI | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|-------|--------|----------|------------|--------|---------|--------|---------|--------|---------|--------|-----------|
| 1.299 | .039 | -1.85990 | 2004.39999 | .23340 | .23350 | .23340 | .23350 | .23350 | .23340 | .22520 | 855.64000 |
| 1.299 | 2.131 | -1.85150 | 2003.70000 | .23210 | .23210 | .23190 | .23270 | .23200 | .23270 | .22860 | 855.41000 |
| 1.299 | 4.236 | -1.86060 | 2003.70000 | .23340 | .23260 | .23340 | .23330 | .23200 | .23260 | .22990 | 855.30000 |
| 1.296 | 6.364 | -1.85660 | 2005.10001 | .23120 | .23136 | .23020 | .23120 | .23110 | .23070 | .22900 | 855.75000 |
| 1.296 | 8.512 | -1.84090 | 2005.10001 | .22930 | .22990 | .22960 | .22960 | .22960 | .23010 | .22890 | 855.52000 |
| 1.295 | 10.673 | -1.84050 | 2004.39999 | .22850 | .22800 | .22810 | .22800 | .22810 | .22780 | .22860 | 855.06000 |
| 1.295 | 12.821 | -1.84080 | 2004.39999 | .22520 | .22490 | .22510 | .22500 | .22420 | .22400 | .22660 | 855.06000 |
| 1.295 | 14.976 | -1.86360 | 2005.10001 | .22070 | .22150 | .22180 | .22090 | .22090 | .22100 | .22410 | 855.40000 |
| 1.296 | 17.182 | -1.90340 | 2004.39980 | .21930 | .22010 | .22030 | .21960 | .22020 | .21950 | .21980 | 854.94000 |
| 1.294 | 19.354 | -1.89840 | 2004.39999 | .21710 | .21690 | .21690 | .21690 | .21670 | .21660 | .21810 | 854.95000 |
| 1.293 | 21.520 | -1.89540 | 2005.10001 | .21660 | .21630 | .21660 | .21610 | .21670 | .21600 | .21610 | 855.18000 |
| 1.294 | 23.641 | -1.86290 | 2005.10001 | .21280 | .21270 | .21240 | .21210 | .21250 | .21300 | .21330 | 855.63000 |
| 1.295 | 25.757 | -1.82070 | 2005.60000 | .20990 | .20990 | .20980 | .20960 | .21010 | .21010 | .21300 | 855.29000 |
| 1.295 | 26.799 | -1.82750 | 2005.10001 | .20650 | .20600 | .20570 | .20590 | .20610 | .20570 | .21300 | 856.29000 |
| | | -.00017 | -.16663 | .00000 | -.00024 | .00000 | -.00005 | .00034 | -.00019 | .00112 | -.06099 |

TABULATED DATA - OAI61 (ARC 11-97-87-094)

(BE7R14) (02 AUG 75)

ARC 11-97-87-094 OAI61 ORBITER

PARAMETRIC DATA

REFERENCE DATA

SREF = 2635.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8800 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFCAP = -7.170

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.401 | .049 | -1.88860 | 2046.80000 | .19470 | .19510 | .19560 | .19490 | .19510 | .19500 | .19040 | 882.50000 |
| 1.401 | 2.119 | -1.86330 | 2043.00000 | .19420 | .19430 | .19420 | .19390 | .19390 | .19410 | .19150 | 883.41000 |
| 1.402 | 4.213 | -1.84060 | 2048.29999 | .19400 | .19409 | .19350 | .19310 | .19350 | .19380 | .19270 | 883.11000 |
| 1.399 | 6.336 | -1.87680 | 2048.29999 | .19450 | .19370 | .19360 | .19380 | .19360 | .19320 | .19330 | 883.07000 |
| 1.399 | 8.483 | -1.85530 | 2049.00000 | .19290 | .19340 | .19340 | .19330 | .19310 | .19300 | .19310 | 883.37000 |
| 1.392 | 10.648 | -1.82440 | 2049.00000 | .19030 | .19010 | .18990 | .19030 | .19010 | .19000 | .19200 | 883.39000 |
| 1.397 | 12.783 | -1.83190 | 2049.00000 | .18700 | .18680 | .18680 | .18700 | .18730 | .18760 | .19010 | 883.32000 |
| 1.398 | 14.932 | -1.87970 | 2049.00000 | .18600 | .18630 | .18580 | .18560 | .18540 | .18580 | .18800 | 883.37000 |
| 1.399 | 17.145 | -1.91350 | 2049.00000 | .18440 | .18500 | .18500 | .18490 | .18490 | .18510 | .18690 | 883.37000 |
| 1.399 | 19.323 | -1.88740 | 2049.00000 | .18290 | .18290 | .18320 | .18330 | .18340 | .18330 | .18530 | 883.32000 |
| 1.397 | 21.483 | -1.86890 | 2049.00000 | .18340 | .18350 | .18350 | .18310 | .18350 | .18340 | .18430 | 883.32000 |
| 1.398 | 23.648 | -1.89360 | 2049.70001 | .18250 | .18250 | .18190 | .18230 | .18250 | .18270 | .18580 | 883.66000 |
| 1.398 | 25.732 | -1.83100 | 2049.70001 | .17750 | .17720 | .17680 | .17670 | .17720 | .17720 | .18100 | 883.84000 |
| 1.396 | 26.778 | -1.80490 | 2048.29999 | .17300 | .17290 | .17290 | .17260 | .17250 | .17300 | .17760 | 882.99000 |
| | GRADIENT | .0153 | .55933 | -.00017 | -.00026 | -.00050 | -.00043 | -.00038 | -.00029 | .00055 | .14586 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.556 | .026 | -2.58940 | 1512.10001 | .14630 | .14650 | .14670 | .14630 | .14620 | .14670 | .14620 | 643.37000 |
| 1.556 | 2.023 | -2.56750 | 1512.89999 | .14540 | .14650 | .14660 | .14650 | .14640 | .14650 | .14670 | 643.67000 |
| 1.556 | 4.098 | -2.58910 | 1511.39999 | .14500 | .14560 | .14516 | .14520 | .14510 | .14490 | .14490 | 643.07000 |
| 1.556 | 6.169 | -2.58890 | 1512.89999 | .14430 | .14500 | .14470 | .14480 | .14430 | .14420 | .14470 | 643.67000 |
| 1.556 | 8.244 | -2.58790 | 1512.89999 | .14130 | .14180 | .14170 | .14180 | .14180 | .14200 | .14200 | 643.67000 |
| 1.556 | 12.354 | -2.58710 | 1512.89999 | .13900 | .13900 | .13920 | .13900 | .13920 | .13940 | .13470 | 643.67000 |
| 1.566 | 14.439 | -2.58320 | 1512.10001 | .13200 | .13200 | .13190 | .13170 | .13156 | .13190 | .13190 | 643.37000 |
| 1.555 | 18.682 | -2.58140 | 1515.70000 | .13040 | .13080 | .13080 | .13080 | .13020 | .13020 | .13020 | 644.88000 |
| 1.555 | 26.715 | -2.57870 | 1516.39999 | .12760 | .12750 | .12700 | .12700 | .12660 | .12650 | .12650 | 645.18000 |
| 1.556 | 24.869 | -2.57510 | 1515.00000 | .12340 | .12320 | .12350 | .12340 | .12310 | .12310 | .12310 | 644.88000 |
| 1.555 | 25.892 | -2.57090 | 1515.70000 | .11430 | .11430 | .11400 | .11430 | .11430 | .11460 | .11460 | 645.18000 |
| 1.552 | | -2.57040 | 1516.39999 | .11250 | .11250 | .11250 | .11260 | .11270 | .11210 | .11210 | 645.18000 |
| | GRADIENT | -.00018 | -.17545 | -.00032 | -.00022 | -.00040 | -.00027 | -.00027 | -.00044 | -.00032 | -.07506 |

REFERENCE DATA

PARAMETRIC DATA

SPEF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8800 IN. YMRP = .0000 IN. YO
 BREF = 938.6800 IN. ZMRP = 375.0680 IN. ZO
 SCALE = .0300

BETA = -2.000 ELEVON = .008
 ALPHA = .000 BOFLAP = -7.170

RUN NO. 329# 0 RW/L = 3.05 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|---------|--------|-----------|
| 1.750 | -0.155 | -2.40120 | 1649.39999 | .10280 | .10270 | .10280 | .10280 | .10260 | .10330 | .10310 | 664.00000 |
| 1.750 | .065 | -2.41380 | 1650.10001 | .10350 | .10350 | .10330 | .10370 | .10360 | .10360 | .10350 | 664.25000 |
| 1.750 | 1.821 | -2.40490 | 1650.10001 | .10350 | .10370 | .10370 | .10380 | .10380 | .10330 | .10330 | 664.20000 |
| 1.750 | 3.883 | -2.40770 | 1649.39999 | .10350 | .10340 | .10340 | .10310 | .10310 | .10390 | .10390 | 664.00000 |
| 1.750 | 5.944 | -2.40770 | 1649.39999 | .10350 | .10310 | .10300 | .10310 | .10260 | .10300 | .10270 | 664.00000 |
| 1.750 | 10.122 | -2.40770 | 1649.39999 | .09720 | .09720 | .09720 | .09750 | .09720 | .09720 | .09740 | 664.00000 |
| 1.750 | 12.127 | -2.40590 | 1650.80000 | .09530 | .09530 | .09520 | .09540 | .09500 | .09500 | .09500 | 664.57000 |
| 1.750 | 14.167 | -2.40650 | 1649.39999 | .09430 | .09430 | .09430 | .09420 | .09400 | .09380 | .09380 | 664.00000 |
| 1.750 | 16.285 | -2.40470 | 1649.39999 | .09330 | .09350 | .09330 | .09340 | .09330 | .09340 | .09340 | 664.00000 |
| 1.750 | 18.379 | -2.40120 | 1649.39999 | .09230 | .09230 | .09260 | .09250 | .09270 | .09270 | .09230 | 664.00000 |
| 1.750 | 20.395 | -2.40090 | 1649.39999 | .09000 | .09000 | .09000 | .09020 | .09030 | .09050 | .09030 | 664.00000 |
| 1.750 | 22.471 | -2.39740 | 1650.10001 | .08450 | .08460 | .08460 | .08460 | .08480 | .08480 | .08460 | 664.28000 |
| 1.750 | 24.528 | -2.39430 | 1649.39999 | .08050 | .08050 | .08050 | .08050 | .08050 | .08050 | .08050 | 664.00000 |
| 1.750 | 25.544 | -2.39120 | 1649.39999 | .07920 | .07950 | .07920 | .07910 | .07910 | .07900 | .07940 | 664.00000 |
| | GRADIENT | .00007 | -.06114 | .00011 | .00010 | .00011 | .00016 | .00004 | -.00069 | .00015 | -.02446 |

RUN NO. 332/ 0 RW/L = 3.05 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.997 | -0.142 | -2.93880 | 1814.89999 | .05940 | .06010 | .05970 | .05980 | .06850 | .05980 | .05970 | 650.65000 |
| 1.997 | 1.784 | -2.93520 | 1812.70000 | .06060 | .06060 | .06020 | .06020 | .06030 | .06020 | .06020 | 649.89000 |
| 1.997 | 3.731 | -2.93480 | 1814.89999 | .06080 | .06080 | .06080 | .06090 | .06080 | .06110 | .06080 | 650.65000 |
| 1.997 | 6.125 | -2.93350 | 1814.89999 | .06080 | .06090 | .06070 | .06080 | .06070 | .06070 | .06070 | 650.65000 |
| 1.997 | 10.252 | -2.93330 | 1814.10001 | .05560 | .05560 | .05560 | .05560 | .05560 | .05580 | .05570 | 650.65000 |
| 1.997 | 14.385 | -2.93350 | 1814.89999 | .05460 | .05460 | .05430 | .05430 | .05400 | .05410 | .05440 | 650.65000 |
| 1.997 | 16.537 | -2.93280 | 1814.89999 | .05350 | .05350 | .05350 | .05340 | .05340 | .05340 | .05340 | 650.65000 |
| 1.997 | 18.626 | -2.93200 | 1814.10001 | .05230 | .05210 | .05210 | .05220 | .05180 | .05230 | .05230 | 650.65000 |
| 1.997 | 20.653 | -2.92560 | 1814.10001 | .04970 | .04920 | .04930 | .04950 | .04930 | .04920 | .04950 | 650.39000 |
| 1.997 | 22.719 | -2.92250 | 1815.60001 | .04990 | .04990 | .04980 | .04970 | .04970 | .04970 | .04940 | 650.96000 |
| 1.997 | 24.800 | -2.91920 | 1814.89999 | .04670 | .04670 | .04680 | .04700 | .04680 | .04710 | .04650 | 650.65000 |
| 1.997 | 25.368 | -2.91760 | 1815.60001 | .04680 | .04680 | .04680 | .04660 | .04700 | .04700 | .04730 | 650.96000 |
| | GRADIENT | .00103 | -.00587 | .00018 | .00018 | .00031 | .00026 | .00034 | .00034 | .00028 | -.00205 |

TABLULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

(BETRYM) (02 AUG 76)

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0800 IN. YO
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA =
AILRON =
-2.000 ELEVON = .000
.000 BBFLAP = -7.170

RUN NO. 348/ 0 RNL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.250 | -1.133 | -3.03390 | 1940.00000 | .03750 | .03800 | .03780 | .03760 | .03740 | .03760 | .03740 | 594.69000 |
| 2.250 | 1.849 | -3.03220 | 1934.39999 | .03690 | .03670 | .03650 | .03650 | .03670 | .03650 | .03690 | 592.95000 |
| 2.250 | 3.900 | -3.03120 | 1937.20000 | .03600 | .03620 | .03600 | .03610 | .03600 | .03580 | .03610 | 593.82000 |
| 2.250 | 5.951 | -3.03130 | 1940.70000 | .03660 | .03640 | .03620 | .03600 | .03610 | .03580 | .03590 | 594.91000 |
| 2.250 | 8.005 | -3.03120 | 1942.20000 | .03520 | .03540 | .03520 | .03520 | .03510 | .03520 | .03520 | 595.34000 |
| 2.250 | 10.056 | -3.02950 | 1942.89999 | .03310 | .03300 | .03280 | .03350 | .03330 | .03300 | .03320 | 595.56000 |
| 2.250 | 12.087 | -3.02800 | 1943.60001 | .03150 | .03150 | .03160 | .03160 | .03150 | .03150 | .03140 | 597.29000 |
| 2.250 | 14.162 | -3.02690 | 1948.50000 | .03120 | .03190 | .03180 | .03180 | .03150 | .03150 | .03100 | 597.72000 |
| 2.250 | 16.289 | -3.02620 | 1949.89999 | .03130 | .03140 | .03120 | .03100 | .03120 | .03100 | .03040 | 597.72000 |
| 2.250 | 18.364 | -3.02380 | 1949.89999 | .03090 | .03100 | .03060 | .03040 | .03060 | .02940 | .02960 | 587.94000 |
| 2.250 | 20.375 | -3.02260 | 1950.70000 | .02920 | .02930 | .02910 | .02910 | .02930 | .02770 | .02770 | 597.94000 |
| 2.250 | 22.446 | -3.01980 | 1950.70000 | .02760 | .02730 | .02760 | .02730 | .02730 | .02780 | .02780 | 597.72000 |
| 2.250 | 24.499 | -3.01580 | 1949.89999 | .02890 | .02860 | .02890 | .02860 | .02860 | .02850 | .02850 | 588.37000 |
| 2.250 | 25.517 | -3.01430 | 1952.10001 | .02830 | .02830 | .02830 | .02810 | .02810 | .02780 | .02750 | 588.37000 |
| | GRADIENT | .00067 | -66219 | -.00035 | -.00045 | -.00045 | -.00037 | -.00035 | -.00045 | -.00032 | -.21197 |

RUN NO. 417/ 0 RNL = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.499 | .117 | -1.94050 | 1449.89999 | .02950 | .02940 | .02950 | .02900 | .02900 | .02930 | .02950 | 371.63000 |
| 2.499 | 2.151 | -1.95220 | 1449.20000 | .02870 | .02860 | .02870 | .02890 | .02860 | .02860 | .02850 | 371.45000 |
| 2.499 | 4.178 | -1.95950 | 1449.89999 | .02790 | .02780 | .02780 | .02790 | .02790 | .02800 | .02790 | 371.63000 |
| 2.499 | 6.214 | -1.95710 | 1449.20000 | .02840 | .02810 | .02820 | .02810 | .02800 | .02780 | .02780 | 371.45000 |
| 2.499 | 8.255 | -1.97330 | 1449.20000 | .02730 | .02720 | .02700 | .02690 | .02710 | .02720 | .02720 | 371.45000 |
| 2.499 | 10.291 | -1.97840 | 1449.20000 | .02620 | .02600 | .02600 | .02580 | .02560 | .02590 | .02580 | 371.45000 |
| 2.499 | 12.332 | -1.98380 | 1449.89999 | .02440 | .02430 | .02420 | .02430 | .02430 | .02440 | .02440 | 371.63000 |
| 2.499 | 14.379 | -1.98180 | 1449.89999 | .02370 | .02360 | .02360 | .02370 | .02360 | .02350 | .02350 | 371.63000 |
| 2.499 | 16.417 | -1.98330 | 1449.89999 | .02320 | .02320 | .02320 | .02310 | .02300 | .02300 | .02300 | 371.63000 |
| 2.499 | 18.459 | -1.98180 | 1449.89999 | .02220 | .02220 | .02220 | .02230 | .02220 | .02220 | .02220 | 371.63000 |
| 2.499 | 20.505 | -1.97800 | 1449.89999 | .02200 | .02200 | .02190 | .02190 | .02200 | .02200 | .02200 | 371.63000 |
| 2.499 | 22.548 | -1.97550 | 1449.89999 | .02190 | .02170 | .02180 | .02170 | .02170 | .02180 | .02190 | 371.63000 |
| 2.499 | 24.590 | -1.96860 | 1449.89999 | .02200 | .02190 | .02180 | .02180 | .02170 | .02180 | .02190 | 371.63000 |
| 2.499 | 25.613 | -1.96440 | 1449.89999 | .02140 | .02130 | .02130 | .02140 | .02140 | .02130 | .02130 | 371.63000 |
| | GRADIENT | -.00468 | -.00021 | -.00039 | -.00039 | -.00037 | -.00027 | -.00027 | -.00032 | -.00034 | -.00005 |

TABULATED DATA - 0A161 (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A161 ORBITER

(BE7R14) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SC*LE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AILERON = .000 BDFLAP = -7.170

RUN NO. 424/ 0

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|----------|--------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 3.493 | 1.046 | -1.86580 | 1976.80000 | .01270 | .01250 | .01260 | .01260 | .01260 | .01260 | .01248 | 328.02000 |
| 3.493 | 2.065 | -1.87620 | 1975.80000 | .01280 | .01220 | .01210 | .01210 | .01210 | .01210 | .01210 | 328.02000 |
| 3.493 | 4.097 | -1.88680 | 1976.80000 | .01180 | .01170 | .01180 | .01180 | .01180 | .01180 | .01170 | 328.02000 |
| 3.493 | 6.123 | -1.89250 | 1976.80000 | .01180 | .01180 | .01160 | .01150 | .01150 | .01160 | .01160 | 328.02000 |
| 3.493 | 8.153 | -1.90000 | 1976.80000 | .01120 | .01110 | .01110 | .01120 | .01120 | .01120 | .01120 | 328.02000 |
| 3.493 | 10.187 | -1.90250 | 1976.80000 | .01060 | .01040 | .01040 | .01040 | .01060 | .01060 | .01060 | 328.02000 |
| 3.493 | 12.217 | -1.90780 | 1976.80000 | .01000 | .00980 | .00990 | .00990 | .01000 | .01000 | .01000 | 328.02000 |
| 3.493 | 14.256 | -1.90760 | 1976.80000 | .00950 | .00950 | .00930 | .00930 | .00950 | .00950 | .00950 | 328.02000 |
| 3.493 | 16.290 | -1.90900 | 1976.80000 | .00910 | .00910 | .00910 | .00910 | .00910 | .00910 | .00910 | 328.02000 |
| 3.493 | 18.321 | -1.90730 | 1976.80000 | .00950 | .00950 | .00950 | .00970 | .00970 | .00950 | .00950 | 328.02000 |
| 3.493 | 20.351 | -1.90460 | 1976.80000 | .00950 | .00950 | .00940 | .00940 | .00930 | .00930 | .00940 | 328.02000 |
| 3.493 | 22.395 | -1.89990 | 1976.80000 | .00950 | .00950 | .00950 | .00950 | .00930 | .00930 | .00910 | 328.02000 |
| 3.493 | 24.440 | -1.89390 | 1976.80000 | .00920 | .00920 | .00910 | .00910 | .00900 | .00900 | .00890 | 328.02000 |
| 3.493 | 25.460 | -1.88930 | 1976.80000 | .00920 | .00910 | .00910 | .00900 | .00890 | .00880 | .00890 | 328.02000 |
| GRADIENT | | -.00494 | .01002 | -.00022 | -.00020 | -.00020 | -.00020 | -.00020 | -.00020 | -.00017 | .00000 |

RUN NO. 427/ 0

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(P5F) |
|----------|--------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 3.493 | 1.046 | -1.97800 | 2649.39999 | .00710 | .00700 | .00700 | .00690 | .00710 | .00710 | .00710 | 298.18000 |
| 3.493 | 2.065 | -1.99090 | 2650.79999 | .00710 | .00710 | .00700 | .00700 | .00700 | .00700 | .00700 | 298.34000 |
| 3.493 | 3.868 | -1.99660 | 2653.70901 | .00690 | .00690 | .00690 | .00700 | .00700 | .00690 | .00690 | 298.66000 |
| 3.493 | 5.902 | -2.00840 | 2653.08000 | .00650 | .00700 | .00700 | .00680 | .00680 | .00680 | .00680 | 298.58000 |
| 3.493 | 7.924 | -2.01230 | 2651.60001 | .00650 | .00650 | .00650 | .00640 | .00640 | .00630 | .00630 | 298.42000 |
| 3.493 | 9.947 | -2.02270 | 2652.23999 | .00590 | .00580 | .00580 | .00580 | .00590 | .00590 | .00590 | 298.50000 |
| 3.493 | 11.972 | -2.03170 | 2651.60001 | .00550 | .00550 | .00550 | .00540 | .00550 | .00550 | .00550 | 298.93000 |
| 3.493 | 14.009 | -2.03900 | 2655.79999 | .00580 | .00580 | .00580 | .00580 | .00570 | .00570 | .00580 | 298.58000 |
| 3.493 | 16.055 | -2.03120 | 2653.07000 | .00560 | .00560 | .00560 | .00560 | .00560 | .00560 | .00560 | 298.82000 |
| 3.493 | 20.092 | -2.01780 | 2655.10001 | .00550 | .00550 | .00550 | .00540 | .00540 | .00540 | .00540 | 298.65000 |
| 3.493 | 22.135 | -2.01230 | 2653.70001 | .00550 | .00550 | .00550 | .00540 | .00540 | .00530 | .00530 | 298.74000 |
| 3.493 | 24.167 | -2.00580 | 2654.39999 | .00520 | .00520 | .00520 | .00520 | .00520 | .00520 | .00520 | 298.58000 |
| 3.493 | 25.181 | -2.00370 | 2653.07000 | .00520 | .00510 | .00510 | .00500 | .00500 | .00500 | .00500 | 298.58000 |
| GRADIENT | | -.00460 | 1.05433 | -.00005 | -.00002 | -.00002 | -.00002 | -.00002 | -.00002 | -.00005 | .17891 |

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OF POOR QUALITY

TABULATED DATA - 0A161 (ARC 11-97-87-09A)
ARC 11-97-87-09A 0A161 ORBITER

(BE7R15) F 02 AUG 76

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ATLON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | RUN NO. | 31 / 0 | RNAL = 4.24 | GRADIENT INTERVAL = -5.004 | 5.00 | PT13/PT | PT14/PT | PT15/PT | PT16/PT | PT17/PT | Q(PSE) |
|------|----------|--------|------------|---------|--------|-------------|----------------------------|------|---------|---------|---------|---------|---------|-----------|
| .598 | .073 | .19450 | 2594.28999 | | | | | | .74740 | .74680 | .74990 | .74650 | .73930 | 510.01000 |
| .598 | 2.125 | .20690 | 2593.00000 | | | | | | .74690 | .74650 | .74650 | .74730 | .74240 | 510.61000 |
| .598 | 4.183 | .20860 | 2594.29999 | | | | | | .74770 | .74700 | .74720 | .74750 | .74490 | 507.68980 |
| .597 | 6.253 | .21040 | 2593.00000 | | | | | | .74740 | .74700 | .74689 | .74730 | .74510 | 509.44000 |
| .598 | 8.344 | .21520 | 2595.00000 | | | | | | .74770 | .74710 | .74690 | .74690 | .74660 | 502.85000 |
| .597 | 10.444 | .21130 | 2595.00000 | | | | | | .74770 | .74730 | .74590 | .74680 | .74530 | 509.46000 |
| .597 | 12.510 | .20970 | 2595.00000 | | | | | | .74640 | .74360 | .74410 | .74410 | .74380 | 508.87000 |
| .597 | 14.666 | .22340 | 2595.70001 | | | | | | .74410 | .74110 | .74340 | .73830 | .74160 | 508.28000 |
| .597 | 16.772 | .21590 | 2595.70001 | | | | | | .73800 | .73810 | .73800 | .73350 | .73290 | 508.30000 |
| .597 | 18.886 | .21300 | 2595.00000 | | | | | | .73260 | .73340 | .73350 | .73350 | .73320 | 508.31000 |
| .597 | 20.999 | .20210 | 2595.70001 | | | | | | .72900 | .72880 | .72940 | .72260 | .72830 | 508.69000 |
| .598 | 23.099 | .20130 | 2596.39999 | | | | | | .72900 | .72410 | .72260 | .71920 | .72450 | 511.21000 |
| .597 | 25.168 | .23700 | 2596.39999 | | | | | | .71900 | .71810 | .71870 | .00024 | .00136 | -56.777 |
| .599 | 26.147 | .16810 | 2596.39999 | | | | | | .00017 | .00005 | .00032 | | | |
| | GRADIENT | .00343 | .00025 | | | | | | | | | | | |

| MACH | ALPHA | BETA | PT | RUN NO. | 35 / 0 | RNAL = 4.22 | GRADIENT INTERVAL = -5.007 | 5.00 | PT13/PT | PT14/PT | PT15/PT | PT16/PT | PT17/PT | Q(PSE) |
|------|----------|--------|------------|---------|--------|-------------|----------------------------|------|---------|---------|---------|---------|---------|-----------|
| .693 | .064 | .19100 | 2357.29999 | | | | | | .67360 | .67260 | .67240 | .67280 | .66150 | 581.29000 |
| .688 | 2.125 | .24190 | 2357.29999 | | | | | | .67280 | .67270 | .67250 | .67390 | .66630 | 580.75000 |
| .692 | 4.196 | .20990 | 2356.60001 | | | | | | .67320 | .67330 | .67300 | .67330 | .66960 | 581.62000 |
| .696 | 6.267 | .21800 | 2356.60001 | | | | | | .67290 | .67420 | .67420 | .67340 | .67120 | 578.99000 |
| .697 | 8.356 | .21550 | 2357.29999 | | | | | | .67310 | .67450 | .67430 | .67460 | .67240 | 579.14000 |
| .697 | 10.308 | .21490 | 2357.29999 | | | | | | .67240 | .67450 | .67150 | .67150 | .67170 | 579.14000 |
| .697 | 12.608 | .21210 | 2357.29999 | | | | | | .67140 | .67190 | .67080 | .67050 | .67160 | 578.50000 |
| .695 | 14.734 | .22270 | 2356.60001 | | | | | | .66790 | .66770 | .66890 | .66680 | .66990 | 579.60000 |
| .697 | 16.858 | .21410 | 2357.29999 | | | | | | .66370 | .66290 | .66290 | .66320 | .66730 | 579.14000 |
| .697 | 18.999 | .20890 | 2356.60001 | | | | | | .66340 | .65780 | .65680 | .65720 | .66370 | 577.52000 |
| .695 | 21.115 | .19560 | 2357.29999 | | | | | | .65400 | .65350 | .65390 | .65320 | .65940 | 579.77000 |
| .699 | 23.215 | .19820 | 2356.00000 | | | | | | .64420 | .64400 | .64420 | .64490 | .64350 | 579.65000 |
| .697 | 25.271 | .21450 | 2356.60001 | | | | | | .63260 | .63250 | .63250 | .63150 | .64350 | 579.65000 |
| .699 | 26.243 | .18330 | 2357.29999 | | | | | | .62030 | .62200 | .62200 | .62750 | .62770 | 581.29000 |
| | GRADIENT | .00457 | .16953 | | | | | | .00018 | .00017 | .00015 | .00012 | .00196 | 12374 |

(BETRIS) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AFLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2600.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0800 IN. ZO
SCALE = .0300

RUN NO. 414 0 RML = 4.22 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSE1 |
|------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .799 | 0.43 | .19200 | 2197.50000 | .59490 | .59580 | .59530 | .59490 | .59490 | .59500 | .57820 | 644.69800 |
| .799 | 2.122 | .21540 | 2199.20001 | .59376 | .59460 | .59560 | .59470 | .59510 | .59520 | .58510 | 645.21000 |
| .798 | 6.322 | .28050 | 2199.20001 | .59690 | .59590 | .59560 | .59480 | .59620 | .59610 | .59030 | 644.24000 |
| .798 | 8.433 | .22600 | 2198.20001 | .59740 | .59800 | .59650 | .59710 | .59710 | .59720 | .59360 | 644.24000 |
| .792 | 10.566 | .23240 | 2198.20001 | .59750 | .59840 | .59650 | .59690 | .59631 | .59630 | .59490 | 643.76000 |
| .797 | 14.667 | .22940 | 2198.89999 | .59590 | .59630 | .59550 | .59490 | .59490 | .59490 | .59490 | 644.28000 |
| .795 | 16.935 | .23190 | 2198.20001 | .59380 | .59420 | .59410 | .59210 | .59260 | .59270 | .59190 | 642.83000 |
| .798 | 19.054 | .23590 | 2198.89999 | .59940 | .59940 | .59890 | .59020 | .59050 | .58860 | .58770 | 644.24000 |
| .796 | 21.222 | .23850 | 2198.20001 | .59270 | .59180 | .59280 | .58400 | .58250 | .58140 | .58190 | 641.86000 |
| .801 | 23.294 | .24300 | 2198.89999 | .57680 | .57450 | .57590 | .57660 | .57500 | .57650 | .57270 | 649.65000 |
| .795 | 25.339 | .24560 | 2208.10001 | .56840 | .56700 | .56900 | .56451 | .56580 | .56420 | .56510 | 643.79000 |
| .798 | 26.291 | .23730 | 2207.39999 | .55420 | .56460 | .55460 | .55581 | .55480 | .55420 | .55190 | 646.71000 |
| .799 | | .23090 | 2207.39999 | .53220 | .53180 | .53280 | .53180 | .53280 | .53040 | .54070 | 677.92000 |
| | | .18400 | 2207.39999 | .52520 | .52450 | .52810 | .52560 | .52780 | .52621 | | |
| | | .00675 | .16733 | .00024 | .00007 | .00007 | .00002 | .00034 | .00025 | .00294 | .10829 |

RUN NO. 464 0 RML = 4.22 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSE1 |
|------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .846 | 0.65 | .15520 | 2153.60001 | .55660 | .55750 | .55640 | .55650 | .55700 | .55630 | .52070 | 675.28000 |
| .845 | 2.134 | .21150 | 2156.50000 | .55750 | .55790 | .55830 | .55880 | .55790 | .55680 | .54450 | 678.63000 |
| .849 | 4.227 | .20650 | 2156.79999 | .55790 | .55730 | .55650 | .55830 | .56010 | .55990 | .55080 | 678.63000 |
| .847 | 6.330 | .21220 | 2156.50000 | .55840 | .55800 | .55660 | .55630 | .55670 | .55750 | .55310 | 677.77000 |
| .848 | 8.447 | .22480 | 2157.20001 | .55550 | .55630 | .55680 | .55660 | .56750 | .56530 | .55440 | 678.28000 |
| .847 | 10.566 | .22530 | 2157.20001 | .55560 | .56310 | .55480 | .56480 | .55460 | .55460 | .55420 | 677.92000 |
| .846 | 14.810 | .22150 | 2157.20001 | .55080 | .56010 | .55020 | .54901 | .55020 | .55030 | .54950 | 676.91000 |
| .846 | 16.952 | .23220 | 2157.20001 | .54720 | .54610 | .54500 | .54450 | .54450 | .54580 | .54450 | 677.92000 |
| .847 | 19.089 | .23410 | 2157.20001 | .53900 | .53920 | .54060 | .54110 | .53920 | .53200 | .53801 | 677.36000 |
| .846 | 21.224 | .23410 | 2157.20001 | .53110 | .53170 | .53070 | .53150 | .53200 | .52050 | .53130 | 678.91000 |
| .845 | 23.320 | .22780 | 2157.20001 | .52190 | .52140 | .52190 | .52071 | .52290 | .52050 | .52180 | 679.99000 |
| .847 | 25.375 | .22640 | 2157.20001 | .50190 | .50190 | .50190 | .50241 | .50470 | .50660 | .50460 | 677.31000 |
| | | .16550 | 2156.50000 | .48430 | .48240 | .48240 | .48240 | .48240 | .48350 | .50460 | 678.28000 |
| | | .18870 | 2157.20001 | .47700 | .47680 | .47670 | .47631 | .47660 | .47570 | | |
| | | .01230 | .52687 | .00022 | .00005 | .00005 | .00043 | .00075 | .00087 | .00722 | .60324 |

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 90.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YQ
 BREF = 938.6800 IN. ZMRP = 375.0000 IN. ZQ
 SCALE = .0300

BETA = .000
 AILRON = .000
 ELEVON = .000
 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|--------|------------|---------|--------|--------|--------|---------|---------|--------|-----------|
| .900 | .047 | .18810 | 2127.50000 | .51700 | .51650 | .51530 | .51670 | .51700 | .51670 | .49560 | 713.15800 |
| .903 | 2.151 | .20240 | 2127.50000 | .51680 | .51750 | .51760 | .51600 | .51700 | .51520 | .50410 | 715.23000 |
| .899 | 4.231 | .20430 | 2127.50000 | .51670 | .51780 | .51980 | .51800 | .51890 | .51890 | .50990 | 712.71000 |
| .898 | 6.356 | .21060 | 2127.50000 | .51850 | .51870 | .51980 | .51960 | .51890 | .51310 | .51310 | 711.65000 |
| .898 | 8.472 | .21290 | 2127.50000 | .51800 | .51690 | .51540 | .51760 | .51790 | .51750 | .51540 | 712.26000 |
| .900 | 10.604 | .21660 | 2127.50000 | .51130 | .51170 | .51160 | .51310 | .51460 | .51480 | .51400 | 713.15000 |
| .899 | 12.723 | .21600 | 2126.79999 | .50860 | .50770 | .50710 | .50580 | .50510 | .50120 | .51100 | 710.92000 |
| .897 | 14.859 | .21910 | 2127.50000 | .50360 | .50250 | .50320 | .50290 | .50100 | .49270 | .50130 | 714.40000 |
| .901 | 17.019 | .21500 | 2127.50000 | .49360 | .48240 | .49350 | .49380 | .49420 | .46230 | .49320 | 710.49000 |
| .897 | 19.153 | .22950 | 2126.79999 | .48530 | .48480 | .48450 | .48290 | .48330 | .46750 | .48170 | 710.06000 |
| .895 | 21.287 | .21300 | 2126.79999 | .47240 | .47000 | .47080 | .46950 | .46710 | .45030 | .46170 | 711.95000 |
| .898 | 23.403 | .20930 | 2127.50000 | .44830 | .44880 | .44990 | .44800 | .45100 | .43030 | .44660 | 712.28000 |
| .893 | 25.440 | .19010 | 2127.50000 | .43020 | .43040 | .43480 | .43460 | .43650 | .42030 | .44020 | 713.64000 |
| .900 | 26.430 | .14500 | 2128.25001 | .42590 | .42660 | .42730 | .42860 | .42630 | .42780 | .44020 | 713.64000 |
| | GRADIENT | | .00000 | -.00007 | .00012 | .00033 | .00017 | -.00029 | -.00007 | .00343 | -.10433 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|--------|------------|---------|---------|--------|---------|--------|---------|--------|-----------|
| .950 | .053 | .19580 | 2086.70001 | .46950 | .46820 | .46640 | .46900 | .46740 | .46630 | .44250 | 737.13000 |
| .951 | 2.162 | .21040 | 2086.00000 | .46360 | .46530 | .46530 | .46600 | .46620 | .46760 | .45300 | 737.64000 |
| .948 | 4.274 | .20680 | 2084.29999 | .46650 | .46800 | .46730 | .46870 | .46980 | .47060 | .45960 | 735.43000 |
| .949 | 6.394 | .21920 | 2086.00000 | .47020 | .47120 | .47180 | .47300 | .47090 | .47080 | .46480 | 735.68000 |
| .949 | 8.529 | .23390 | 2086.70001 | .46660 | .46560 | .46460 | .46560 | .46540 | .46300 | .46280 | 735.36000 |
| .948 | 10.678 | .23170 | 2086.00000 | .46090 | .46130 | .45810 | .45710 | .45980 | .45930 | .46110 | 735.51000 |
| .947 | 12.800 | .22380 | 2086.70001 | .44690 | .44790 | .44870 | .45070 | .45120 | .44860 | .45560 | 735.59000 |
| .947 | 14.951 | .23320 | 2086.00000 | .44370 | .44740 | .44740 | .44920 | .44640 | .44550 | .45030 | 735.13000 |
| .948 | 17.111 | .23710 | 2086.70001 | .43550 | .43640 | .43780 | .44920 | .43660 | .44420 | .44420 | 735.59000 |
| .950 | 19.270 | .23710 | 2087.20001 | .42630 | .42730 | .42800 | .42960 | .42820 | .42840 | .43710 | 739.07000 |
| .950 | 21.390 | .20190 | 2087.20001 | .41260 | .41440 | .41460 | .41660 | .41500 | .41520 | .42740 | 737.29000 |
| .948 | 23.467 | .20930 | 2086.39999 | .40020 | .40030 | .40280 | .40150 | .40160 | .41930 | .41930 | 736.44000 |
| .949 | 25.549 | .20980 | 2086.39999 | .38580 | .38580 | .38730 | .38580 | .38610 | .38810 | .40230 | 735.44000 |
| .949 | 26.542 | .17170 | 2086.39999 | .38500 | .38650 | .38880 | .38880 | .38420 | .39480 | .39480 | 736.82000 |
| | GRADIENT | | -.33171 | -.00071 | -.00052 | .08021 | -.00007 | .00057 | -.00102 | .00405 | -.40288 |

TABULATED DATA - 0A161 (ARC 11-97-87-09#)
 (BETRIS) (02 AUG 76)

REFERENCE DATA
 SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA
 BETA = .000 ELEVON = .000
 A/RON = .000 BOFLAP = -7.170

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1(PSF) |
|------|----------|--------|------------|--------|--------|--------|--------|--------|--------|-----------|
| .980 | .053 | .17530 | 2072.29999 | .42660 | .42590 | .42630 | .42530 | .42620 | .40820 | 753.15000 |
| .981 | 2.163 | .19780 | 2075.50000 | .42630 | .42710 | .42590 | .42580 | .42800 | .41660 | 755.16000 |
| .990 | 4.277 | .20620 | 2074.39999 | .42900 | .42770 | .42940 | .42820 | .42770 | .42200 | 754.15000 |
| .983 | 6.402 | .20890 | 2073.03000 | .42840 | .42550 | .42550 | .42530 | .42510 | .42330 | 753.24000 |
| .979 | 8.550 | .22320 | 2077.29999 | .42420 | .42260 | .42260 | .42290 | .42230 | .42400 | 754.13000 |
| .982 | 10.706 | .22410 | 2075.79999 | .41710 | .41699 | .41540 | .41680 | .41830 | .42140 | 754.33000 |
| .978 | 12.845 | .20860 | 2073.70001 | .41340 | .41280 | .41280 | .41470 | .41360 | .41790 | 752.21000 |
| .976 | 14.998 | .22520 | 2075.79999 | .40390 | .40380 | .40380 | .40320 | .40320 | .41040 | 752.99000 |
| .990 | 17.169 | .21940 | 2075.79999 | .39490 | .39560 | .39560 | .39620 | .39510 | .40810 | 754.78000 |
| .974 | 19.297 | .22070 | 2073.70001 | .39750 | .39870 | .39870 | .39530 | .39740 | .40810 | 753.96000 |
| .974 | 21.443 | .20580 | 2075.70001 | .36490 | .36490 | .36490 | .39550 | .39290 | .39980 | 753.51000 |
| .976 | 23.539 | .20540 | 2078.70001 | .37770 | .37620 | .37764 | .37850 | .37660 | .38720 | 753.19000 |
| .976 | 25.615 | .23330 | 2075.10001 | .35740 | .35700 | .36060 | .35830 | .35910 | .37530 | 752.01000 |
| .977 | 26.601 | .16450 | 2074.39999 | .34950 | .34950 | .35130 | .35080 | .35030 | .36490 | 753.04000 |
| .979 | GRADIENT | .00731 | .49715 | .00057 | .00083 | .00083 | .00043 | .00069 | .00327 | .23673 |

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1(PSF) |
|-------|----------|--------|------------|---------|---------|---------|--------|--------|--------|-----------|
| 1.052 | .059 | .20030 | 2041.20000 | .36250 | .36160 | .36020 | .35960 | .36110 | .34960 | 783.21000 |
| 1.051 | 2.174 | .21030 | 2040.50000 | .36090 | .36160 | .36380 | .36350 | .36110 | .35220 | 784.76000 |
| 1.050 | 4.296 | .21900 | 2040.50000 | .35960 | .36030 | .36180 | .36120 | .36170 | .35810 | 783.64000 |
| 1.049 | 6.420 | .22040 | 2041.20000 | .36320 | .36370 | .36400 | .36160 | .36370 | .35870 | 783.52000 |
| 1.049 | 8.575 | .22780 | 2040.50000 | .36120 | .36130 | .36100 | .36110 | .36300 | .35050 | 783.21000 |
| 1.049 | 10.737 | .23260 | 2041.89999 | .36610 | .36620 | .36490 | .36510 | .36790 | .35220 | 783.75000 |
| 1.050 | 12.882 | .22370 | 2041.20000 | .34960 | .34950 | .35050 | .35050 | .34950 | .35480 | 784.27000 |
| 1.051 | 15.047 | .22450 | 2042.60001 | .34410 | .34460 | .34420 | .34250 | .34300 | .34950 | 784.81000 |
| 1.051 | 17.219 | .21440 | 2041.89999 | .33910 | .33960 | .33930 | .33870 | .33970 | .34940 | 785.31000 |
| 1.049 | 19.394 | .21950 | 2041.89999 | .33790 | .33600 | .33680 | .33610 | .33590 | .33910 | 784.44000 |
| 1.050 | 21.564 | .22640 | 2041.20000 | .33710 | .33600 | .33690 | .33540 | .33590 | .33910 | 778.87000 |
| 1.050 | 23.745 | .21000 | 2043.30000 | .32010 | .32030 | .32280 | .32170 | .32220 | .33280 | 785.24000 |
| 1.049 | 25.921 | .21480 | 2042.60001 | .30880 | .30970 | .30860 | .30870 | .30870 | .32380 | 783.95000 |
| 1.049 | 28.116 | .19900 | 2042.60001 | .30860 | .30830 | .30950 | .30750 | .30730 | .31530 | 784.49000 |
| 1.049 | GRADIENT | .08441 | -.16911 | -.00068 | -.00034 | -.00034 | .00033 | .00014 | .00648 | -.32338 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITTER

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 996.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 72/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.100 | .052 | .17320 | 2015.00000 | .33800 | .33820 | .33820 | .33800 | .33820 | .33760 | .32410 | 799.25000 |
| 1.099 | 2.169 | .19820 | 2014.30000 | .33750 | .33790 | .33750 | .33700 | .33780 | .33770 | .33020 | 799.50000 |
| 1.101 | 4.290 | .21240 | 2015.00000 | .33630 | .33628 | .33610 | .33580 | .33640 | .33630 | .33250 | 799.80000 |
| 1.098 | 6.416 | .21600 | 2014.30000 | .33660 | .33660 | .33550 | .33580 | .33510 | .33480 | .33420 | 799.25000 |
| 1.099 | 8.570 | .22330 | 2016.39999 | .33430 | .33430 | .33300 | .33540 | .33460 | .33490 | .33450 | 799.97000 |
| 1.098 | 10.729 | .22770 | 2015.00000 | .33370 | .33370 | .33240 | .33470 | .33400 | .33430 | .33390 | 799.42000 |
| 1.099 | 12.888 | .22950 | 2015.00000 | .32990 | .32960 | .32920 | .32900 | .32950 | .32930 | .32830 | 799.42000 |
| 1.098 | 15.053 | .22990 | 2015.70000 | .32860 | .32860 | .32820 | .32820 | .32860 | .32880 | .32850 | 799.56000 |
| 1.099 | 17.238 | .21730 | 2017.10001 | .31680 | .31680 | .31680 | .31710 | .31670 | .31740 | .31900 | 799.37000 |
| 1.098 | 19.390 | .22090 | 2016.39999 | .31290 | .31250 | .31290 | .31270 | .31320 | .31350 | .31330 | 801.02000 |
| 1.099 | 21.533 | .20490 | 2018.50000 | .30510 | .30520 | .30510 | .30540 | .30640 | .30620 | .30130 | 800.46000 |
| 1.101 | 23.744 | .21380 | 2017.10001 | .29150 | .29150 | .29230 | .29201 | .29380 | .29380 | .29590 | 797.32000 |
| 1.097 | 26.741 | .17430 | 2013.60001 | .28950 | .28770 | .28960 | .28931 | .28950 | .28810 | .29590 | 797.32000 |
| | GRADIENT | .00925 | .00013 | -.00047 | -.00028 | -.00050 | -.00052 | -.00042 | -.00031 | .00198 | .02994 |

RUN NO. 77/ 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.149 | .051 | .20100 | 2002.30000 | .31030 | .31030 | .31040 | .31030 | .31078 | .31130 | .29980 | 814.86000 |
| 1.149 | 2.160 | .22410 | 2002.30000 | .31070 | .31060 | .31070 | .31080 | .31070 | .31160 | .30500 | 815.09000 |
| 1.149 | 4.276 | .20730 | 2003.00000 | .31230 | .31230 | .31210 | .31190 | .31090 | .31030 | .30690 | 815.25000 |
| 1.146 | 6.401 | .22430 | 2002.30000 | .31180 | .31250 | .31160 | .31158 | .30990 | .30970 | .30820 | 813.91000 |
| 1.147 | 8.564 | .22240 | 2003.00000 | .31390 | .31390 | .31180 | .31170 | .31140 | .31100 | .30640 | 813.82000 |
| 1.147 | 10.727 | .22990 | 2003.00000 | .30960 | .30960 | .30960 | .30980 | .30790 | .30800 | .30250 | 814.54000 |
| 1.145 | 12.888 | .22300 | 2003.00000 | .30260 | .30260 | .30260 | .30260 | .30260 | .30290 | .30250 | 814.54000 |
| 1.147 | 15.051 | .20930 | 2004.39999 | .29790 | .29990 | .29880 | .29860 | .29820 | .29830 | .29770 | 813.91000 |
| 1.145 | 17.220 | .20900 | 2004.39999 | .29140 | .29140 | .29220 | .29220 | .29030 | .29030 | .29070 | 815.96000 |
| 1.143 | 19.380 | .21440 | 2005.10001 | .28730 | .28730 | .28640 | .28638 | .28670 | .28670 | .28690 | 815.73000 |
| 1.142 | 21.517 | .19850 | 2004.39999 | .28540 | .28460 | .28420 | .28480 | .28490 | .28160 | .28590 | 816.65000 |
| 1.141 | 23.633 | .20380 | 2005.10001 | .28290 | .28290 | .28360 | .28380 | .28220 | .28160 | .28100 | 815.26000 |
| 1.140 | 25.746 | .20620 | 2003.00000 | .27520 | .27520 | .27530 | .27520 | .27520 | .27430 | .28100 | 815.26000 |
| 1.140 | 26.755 | .15940 | 2004.39999 | .27190 | .27190 | .27130 | .27200 | .27140 | .27140 | .27890 | 816.03000 |
| 1.140 | GRADIENT | .00143 | .16577 | .00024 | .00024 | .00040 | .00012 | .00005 | .00024 | .00168 | .02330 |

(BE7R15) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILLON = .000 SDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ. FT. XMRP = 1075.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BPEF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 82/ 0 RM/L = 4.26 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF |
|-------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.199 | .045 | .1730 | 2007.89999 | .28230 | .28270 | .28320 | .28370 | .28420 | .28470 | .28520 | 834.19000 |
| 1.202 | 2.192 | .29030 | 2007.20000 | .28110 | .28120 | .28109 | .28109 | .28109 | .28109 | .28109 | 834.98000 |
| 1.199 | 4.271 | .21440 | 2007.20000 | .28300 | .28330 | .28430 | .28430 | .28430 | .28430 | .28430 | 834.01000 |
| 1.198 | 6.393 | .20760 | 2007.20000 | .28180 | .28180 | .28181 | .28181 | .28181 | .28181 | .28181 | 833.82000 |
| 1.197 | 8.560 | .21820 | 2006.50000 | .28150 | .28150 | .28150 | .28150 | .28150 | .28150 | .28150 | 833.04000 |
| 1.199 | 10.727 | .22660 | 2007.89999 | .27780 | .27780 | .27780 | .27780 | .27780 | .27780 | .27780 | 833.92000 |
| 1.196 | 12.878 | .20830 | 2007.20000 | .27350 | .27350 | .27350 | .27350 | .27350 | .27350 | .27350 | 834.19000 |
| 1.199 | 15.044 | .26560 | 2007.89999 | .26540 | .26540 | .26540 | .26540 | .26540 | .26540 | .26540 | 833.20000 |
| 1.197 | 17.207 | .21570 | 2007.20000 | .25880 | .25880 | .25780 | .25780 | .25780 | .25780 | .25780 | 832.42000 |
| 1.194 | 19.362 | .21190 | 2007.20000 | .25890 | .25890 | .25890 | .25890 | .25890 | .25890 | .25890 | 835.15000 |
| 1.191 | 21.507 | .20070 | 2008.50000 | .25480 | .25480 | .25450 | .25450 | .25450 | .25450 | .25450 | 831.24000 |
| 1.191 | 23.632 | .20310 | 2006.50000 | .25890 | .25890 | .25890 | .25890 | .25890 | .25890 | .25890 | 832.20000 |
| 1.192 | 25.741 | .28120 | 2007.89999 | .25050 | .25050 | .24980 | .24980 | .24980 | .24980 | .24980 | 832.55000 |
| 1.195 | 26.780 | .20380 | 2006.50000 | .25090 | .25090 | .25170 | .25170 | .25170 | .25170 | .25170 | 832.55000 |
| | | .0361 | -.16547 | .00017 | .00017 | .00026 | .00026 | .00036 | .00036 | .00024 | -.04297 |

RUN NO. 87/ 0 RM/L = 4.25 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF |
|-------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.298 | .036 | .21900 | 2004.39999 | .23540 | .23570 | .23600 | .23640 | .23670 | .23710 | .23750 | 855.53000 |
| 1.295 | 2.130 | .21840 | 2003.70000 | .23620 | .23620 | .23670 | .23670 | .23670 | .23670 | .23670 | 855.53000 |
| 1.299 | 4.248 | .24450 | 2004.39999 | .23620 | .23620 | .23670 | .23670 | .23670 | .23670 | .23670 | 855.53000 |
| 1.297 | 6.365 | .20010 | 2004.39999 | .23590 | .23590 | .23560 | .23560 | .23560 | .23560 | .23560 | 855.29000 |
| 1.295 | 8.527 | .22450 | 2005.10000 | .23350 | .23350 | .23360 | .23360 | .23360 | .23360 | .23360 | 855.40000 |
| 1.295 | 10.681 | .21410 | 2005.10000 | .23210 | .23210 | .23260 | .23260 | .23260 | .23260 | .23260 | 855.29000 |
| 1.295 | 12.841 | .21000 | 2005.10000 | .22910 | .22910 | .22830 | .22830 | .22830 | .22830 | .22830 | 855.29000 |
| 1.295 | 14.999 | .22900 | 2004.39999 | .22890 | .22890 | .22890 | .22890 | .22890 | .22890 | .22890 | 855.29000 |
| 1.295 | 17.167 | .19370 | 2005.10000 | .21780 | .21780 | .21810 | .21810 | .21810 | .21810 | .21810 | 854.83000 |
| 1.295 | 19.319 | .20250 | 2004.39999 | .21760 | .21760 | .21760 | .21760 | .21760 | .21760 | .21760 | 855.63000 |
| 1.295 | 21.465 | .20120 | 2005.80000 | .21640 | .21640 | .21610 | .21610 | .21610 | .21610 | .21610 | 855.63000 |
| 1.295 | 23.593 | .20560 | 2005.80000 | .21530 | .21530 | .21530 | .21530 | .21530 | .21530 | .21530 | 855.66000 |
| 1.295 | 25.716 | .22170 | 2005.50000 | .21310 | .21310 | .21390 | .21390 | .21390 | .21390 | .21390 | 855.74000 |
| 1.295 | 26.764 | .21470 | 2005.89000 | .20760 | .20760 | .20760 | .20760 | .20760 | .20760 | .20760 | 855.74000 |
| | | .00607 | -.00061 | .00014 | .00014 | .00024 | .00024 | .00036 | .00036 | .00021 | -.00280 |

(887719) 1 02 AUG 78)

TABULATED DATA - 0A161 (ARC 11-97-87-89A)

ARC 11-97-87-89A 0A161.ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AIRLON = .000 EDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 92/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.02

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | D1PST1 |
|-------|----------|--------|------------|--------|--------|---------|---------|---------|---------|--------|-----------|
| 1.403 | .017 | .1760 | 2048.29999 | .19730 | .19760 | .19750 | .19780 | .19790 | .19720 | .19100 | 883.13000 |
| 1.403 | 2.115 | .21540 | 2043.29999 | .19790 | .19840 | .19830 | .19780 | .19790 | .19790 | .19430 | 883.13000 |
| 1.402 | 4.222 | .23980 | 2048.29999 | .19810 | .19780 | .19740 | .19760 | .19770 | .19770 | .19540 | 883.11000 |
| 1.399 | 6.346 | .21640 | 2048.29999 | .19730 | .19720 | .19730 | .19730 | .19730 | .19730 | .19640 | 883.07000 |
| 1.399 | 8.495 | .20770 | 2048.29999 | .19580 | .19570 | .19580 | .19580 | .19580 | .19580 | .19530 | 883.05000 |
| 1.397 | 10.650 | .19340 | 2048.00000 | .19330 | .19320 | .19340 | .19340 | .19330 | .19330 | .19280 | 883.33000 |
| 1.398 | 12.795 | .20220 | 2048.29999 | .19370 | .19370 | .19280 | .19280 | .19350 | .19350 | .19100 | 883.24000 |
| 1.399 | 14.958 | .23760 | 2049.00000 | .18950 | .18950 | .18950 | .18950 | .18950 | .18950 | .19100 | 883.37000 |
| 1.399 | 17.124 | .19310 | 2048.29999 | .18650 | .18650 | .18650 | .18650 | .18650 | .18650 | .18900 | 883.07000 |
| 1.398 | 19.282 | .20150 | 2048.29999 | .18580 | .18580 | .18580 | .18580 | .18490 | .18550 | .18750 | 883.24000 |
| 1.397 | 21.427 | .20150 | 2049.00000 | .18440 | .18440 | .18440 | .18440 | .18460 | .18420 | .18550 | 883.33000 |
| 1.395 | 23.572 | .20850 | 2048.29999 | .18360 | .18360 | .18360 | .18360 | .18360 | .18360 | .18510 | 883.23000 |
| 1.404 | 25.689 | .21270 | 2050.39999 | .17780 | .17780 | .17780 | .17780 | .17780 | .17780 | .18210 | 884.05000 |
| 1.396 | 26.748 | .22540 | 2048.29999 | .17470 | .17470 | .17470 | .17470 | .17470 | .17470 | .17580 | 883.00000 |
| | GRADIENT | .01598 | .00000 | .00019 | .00005 | -.00032 | -.00005 | -.00005 | -.00012 | .00105 | -.00476 |

RUN NO. 323/ 0 RN/L = 3.02 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | D1PST1 |
|-------|----------|---------|------------|---------|---------|--------|---------|---------|---------|--------|-----------|
| 1.556 | .042 | -.53920 | 1515.70000 | .14760 | .14740 | .14740 | .14770 | .14760 | .14730 | .14760 | 844.86000 |
| 1.556 | 2.029 | -.54070 | 1515.00000 | .14920 | .14900 | .14900 | .14880 | .14920 | .14920 | .14820 | 844.58000 |
| 1.556 | 4.106 | -.54170 | 1515.00000 | .14780 | .14740 | .14790 | .14770 | .14860 | .14770 | .14730 | 844.58000 |
| 1.555 | 6.177 | -.54160 | 1515.00000 | .14670 | .14650 | .14680 | .14680 | .14620 | .14630 | .14640 | 844.58000 |
| 1.555 | 8.245 | -.54240 | 1515.70000 | .14180 | .14250 | .14180 | .14130 | .14150 | .14180 | .14240 | 844.86000 |
| 1.555 | 10.312 | -.54070 | 1513.89999 | .13880 | .13800 | .13900 | .13900 | .13920 | .13920 | .13970 | 845.58000 |
| 1.555 | 12.364 | -.53940 | 1523.50000 | .13750 | .13750 | .13750 | .13750 | .13750 | .13780 | .13710 | 845.19000 |
| 1.555 | 14.439 | -.53780 | 1525.60000 | .13440 | .13420 | .13430 | .13430 | .13430 | .13430 | .13430 | 845.09000 |
| 1.555 | 16.587 | -.53620 | 1528.39999 | .13350 | .13350 | .13350 | .13350 | .13350 | .13350 | .13350 | 850.29000 |
| 1.555 | 18.685 | -.53500 | 1532.70000 | .12940 | .12900 | .12900 | .12910 | .12940 | .12940 | .12940 | 862.10000 |
| 1.555 | 20.723 | -.53090 | 1536.89999 | .12950 | .12950 | .12950 | .12950 | .12950 | .12950 | .12950 | 863.90000 |
| 1.555 | 22.812 | -.52810 | 1539.00000 | .12490 | .12490 | .12490 | .12490 | .12490 | .12490 | .12490 | 864.81000 |
| 1.555 | 24.875 | -.52180 | 1539.00000 | .11560 | .11560 | .11560 | .11560 | .11560 | .11560 | .11560 | 864.81000 |
| 1.555 | 25.901 | -.51960 | 1537.60000 | .11190 | .11130 | .11150 | .11150 | .11140 | .11140 | .11120 | 864.21000 |
| | GRADIENT | -.00061 | -.17095 | -.00001 | -.00001 | .00012 | -.00003 | -.00004 | -.00008 | .00037 | -.07327 |

TABULATED DATA - 0A16D (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

(02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 S.F.T. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 3287 0. RVAL = 3.05 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.750 | -.007 | -.35290 | 1649.39999 | .10460 | .10460 | .10460 | .10460 | .10460 | .10470 | .10460 | 664.00000 |
| 1.750 | 1.986 | -.35460 | 1649.39999 | .10510 | .10560 | .10530 | .10530 | .10530 | .10550 | .10480 | 654.00000 |
| 1.750 | 6.104 | -.35440 | 1650.10001 | .10300 | .10260 | .10310 | .10290 | .10290 | .10330 | .10300 | 664.28909 |
| 1.750 | 8.193 | -.35420 | 1649.39999 | .09950 | .09920 | .09940 | .09940 | .09940 | .09960 | .09930 | 664.00000 |
| 1.750 | 10.205 | -.35460 | 1649.39999 | .09700 | .09710 | .09740 | .09740 | .09740 | .09560 | .09660 | 364.00000 |
| 1.750 | 12.211 | -.35320 | 1649.39999 | .09580 | .09560 | .09580 | .09580 | .09580 | .09510 | .09540 | 664.00000 |
| 1.750 | 14.278 | -.35050 | 1650.10001 | .09460 | .09470 | .09480 | .09480 | .09480 | .09510 | .09520 | 664.00000 |
| 1.750 | 16.489 | -.34710 | 1649.39999 | .09210 | .09210 | .09210 | .09210 | .09210 | .09150 | .09150 | 664.28000 |
| 1.750 | 18.492 | -.34530 | 1650.10001 | .09100 | .09120 | .09100 | .09140 | .09130 | .09150 | .09150 | 664.00000 |
| 1.750 | 20.503 | -.33980 | 1649.39999 | .08920 | .08900 | .08950 | .08930 | .08920 | .08960 | .08940 | 664.00000 |
| 1.750 | 22.574 | -.33640 | 1649.39999 | .08400 | .08560 | .08560 | .08360 | .08360 | .08370 | .08350 | 664.00000 |
| 1.750 | 24.628 | -.33280 | 1650.10001 | .07890 | .07930 | .07900 | .07910 | .07910 | .07900 | .07900 | 664.28000 |
| 1.750 | 25.648 | -.32960 | 1649.39999 | .07680 | .07650 | .07680 | .07650 | .07650 | .07660 | .07670 | 664.00000 |
| | GRADIENT | -.00088 | .00000 | .00030 | .00035 | .00035 | .00035 | .00035 | .00040 | .00010 | .00000 |

RUN NO. 3337 0. RVAL = 3.05 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.997 | -.022 | -.88550 | 1814.89999 | .06090 | .06090 | .06100 | .06100 | .06110 | .06100 | .06110 | 650.65000 |
| 1.997 | 2.012 | -.88610 | 1814.89999 | .06140 | .06120 | .06100 | .06220 | .06100 | .06180 | .06090 | 650.65000 |
| 1.997 | 4.078 | -.88540 | 1814.89999 | .06240 | .06210 | .06220 | .06080 | .06230 | .06270 | .06210 | 650.65000 |
| 1.997 | 6.134 | -.88490 | 1814.10001 | .06070 | .06070 | .06070 | .06080 | .06070 | .06090 | .06080 | 650.39000 |
| 1.997 | 10.267 | -.88520 | 1814.89999 | .05660 | .05670 | .05680 | .05670 | .05670 | .05670 | .05660 | 650.65000 |
| 1.997 | 12.302 | -.88330 | 1815.60001 | .05550 | .05560 | .05560 | .05550 | .05560 | .05550 | .05550 | 650.65000 |
| 1.997 | 13.631 | -.88360 | 1814.10001 | .05410 | .05410 | .05410 | .05410 | .05410 | .05440 | .05420 | 650.39000 |
| 1.997 | 16.530 | -.88660 | 1814.10001 | .05320 | .05310 | .05320 | .05270 | .05320 | .05300 | .05310 | 650.65000 |
| 1.997 | 18.621 | -.87730 | 1814.89999 | .05230 | .05220 | .05230 | .05230 | .05230 | .05230 | .05230 | 650.65000 |
| 1.997 | 20.656 | -.87510 | 1814.89999 | .05010 | .05010 | .05010 | .05010 | .05010 | .05110 | .05070 | 650.65000 |
| 1.997 | 22.729 | -.87080 | 1814.89999 | .04760 | .04780 | .04730 | .04730 | .04730 | .04800 | .04810 | 650.65000 |
| 1.997 | 25.274 | -.86500 | 1814.89999 | .04530 | .04530 | .04530 | .04560 | .04540 | .04570 | .04570 | 650.65000 |
| | GRADIENT | -.00003 | .00000 | .00032 | .00022 | .00032 | .00029 | .00029 | .00027 | .00024 | .00000 |

(BE7R15) (02 AUG 76)

TABLATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2998.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 347/ 0 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSE |
|-------|--------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.250 | -.126 | -.97880 | 1919.50800 | .03570 | .03570 | .03560 | .03560 | .03560 | .03560 | .03570 | 589.40000 |
| 2.250 | 1.863 | -.97710 | 1922.39999 | .03510 | .03510 | .03510 | .03510 | .03480 | .03490 | .03500 | 589.27000 |
| 2.250 | 3.911 | -.97860 | 1921.70000 | .03560 | .03560 | .03560 | .03590 | .03570 | .03580 | .03560 | 589.05000 |
| 2.250 | 5.951 | -.97880 | 1925.20000 | .03710 | .03710 | .03680 | .03670 | .03650 | .03670 | .03660 | 590.14000 |
| 2.250 | 8.013 | -.97850 | 1925.89999 | .03570 | .03540 | .03530 | .03520 | .03550 | .03560 | .03570 | 590.35000 |
| 2.250 | 10.060 | -.97810 | 1928.00000 | .03370 | .03370 | .03380 | .03380 | .03390 | .03400 | .03390 | 591.44000 |
| 2.250 | 12.090 | -.97720 | 1929.39999 | .03240 | .03240 | .03260 | .03240 | .03240 | .03240 | .03240 | 592.74000 |
| 2.250 | 14.167 | -.99110 | 1953.70000 | .03190 | .03190 | .03190 | .03160 | .03190 | .03150 | .03150 | 594.25000 |
| 2.250 | 16.292 | -.97820 | 1959.60001 | .02970 | .02980 | .02950 | .02970 | .02950 | .02970 | .02960 | 593.82000 |
| 2.250 | 18.366 | -.97630 | 1937.20000 | .02950 | .02970 | .02950 | .02950 | .02980 | .02970 | .02970 | 594.25000 |
| 2.250 | 20.377 | -.97500 | 1938.50001 | .02950 | .02840 | .02840 | .02830 | .02840 | .02860 | .02820 | 595.56000 |
| 2.250 | 22.448 | -.97100 | 1942.89999 | .02820 | .02840 | .02820 | .02790 | .02840 | .02860 | .02790 | 595.34000 |
| 2.250 | 24.497 | -.96800 | 1942.20000 | -.23340 | -.23350 | -.23320 | -.23240 | -.23380 | -.23340 | -.23410 | 594.91000 |
| 2.250 | 25.513 | -.96410 | 1940.70000 | -.00002 | -.00002 | -.00005 | -.00003 | -.00003 | -.00003 | -.00002 | 594.91000 |
| | | .00005 | .54058 | | | | | | | | .15859 |

GRADIENT

RUN NO. 418/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSE |
|-------|--------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.499 | 1.118 | .04510 | 1457.70000 | .02850 | .02820 | .02840 | .02840 | .02850 | .02860 | .02850 | 373.63000 |
| 2.499 | 2.156 | .04370 | 1457.70000 | .02770 | .02770 | .02770 | .02780 | .02780 | .02790 | .02770 | 373.63000 |
| 2.499 | 4.185 | .04340 | 1457.70000 | .02730 | .02730 | .02740 | .02700 | .02700 | .02690 | .02700 | 373.63000 |
| 2.499 | 6.219 | .04220 | 1457.70000 | .02860 | .02860 | .02840 | .02830 | .02840 | .02830 | .02840 | 373.63000 |
| 2.499 | 8.253 | .04020 | 1457.70000 | .02810 | .02790 | .02790 | .02760 | .02760 | .02760 | .02760 | 373.63000 |
| 2.499 | 10.292 | .03860 | 1456.39999 | .02590 | .02670 | .02670 | .02650 | .02650 | .02640 | .02640 | 373.63000 |
| 2.499 | 12.332 | .03830 | 1457.70000 | .02540 | .02520 | .02510 | .02530 | .02530 | .02530 | .02530 | 373.63000 |
| 2.499 | 14.377 | .03570 | 1457.70000 | .02440 | .02430 | .02430 | .02440 | .02440 | .02440 | .02440 | 373.63000 |
| 2.499 | 16.416 | .03500 | 1457.70000 | .02380 | .02370 | .02370 | .02380 | .02370 | .02370 | .02370 | 373.63000 |
| 2.499 | 18.459 | .03270 | 1458.39999 | .02340 | .02340 | .02340 | .02350 | .02340 | .02340 | .02340 | 373.63000 |
| 2.499 | 20.502 | .03180 | 1457.00000 | .02270 | .02260 | .02260 | .02250 | .02250 | .02260 | .02260 | 373.63000 |
| 2.499 | 22.550 | .02930 | 1457.39999 | .02290 | .02280 | .02280 | .02280 | .02280 | .02240 | .02240 | 373.63000 |
| 2.499 | 24.597 | .02720 | 1457.70000 | .02220 | .02220 | .02190 | .02190 | .02200 | .02200 | .02190 | 373.63000 |
| 2.499 | 25.621 | .02570 | 1457.70000 | .02150 | .02140 | .02140 | .02150 | .02150 | .02150 | .02150 | 373.63000 |
| | | -.00012 | .00000 | -.00030 | -.00022 | -.00032 | -.00034 | -.00037 | -.00042 | -.00037 | -.96000 |

GRADIENT

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILERON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 336.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 423/ 0 RV/L = 1.95 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT11/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|--------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 3.499 | .068 | .14410 | 1975.39999 | .01270 | .01260 | .01260 | .01260 | .01270 | .01270 | .01270 | 327.78000 |
| 3.499 | 2.090 | .14330 | 1975.39999 | .01270 | .01250 | .01250 | .01240 | .01240 | .01230 | .01240 | 327.78000 |
| 3.499 | 4.116 | .14420 | 1975.39999 | .01220 | .01200 | .01200 | .01190 | .01190 | .01180 | .01180 | 327.78000 |
| 3.499 | 6.147 | .14260 | 1977.50000 | .01180 | .01160 | .01160 | .01150 | .01150 | .01150 | .01150 | 328.14000 |
| 3.499 | 8.173 | .13970 | 1976.80000 | .01140 | .01130 | .01130 | .01130 | .01140 | .01140 | .01140 | 328.02000 |
| 3.499 | 10.204 | .13850 | 1976.80000 | .01120 | .01120 | .01120 | .01120 | .01120 | .01120 | .01120 | 328.02000 |
| 3.499 | 12.242 | .13900 | 1976.80000 | .01100 | .01100 | .01090 | .01080 | .01080 | .01080 | .01080 | 328.02000 |
| 3.499 | 14.269 | .13460 | 1976.80000 | .01020 | .01020 | .01020 | .01020 | .01020 | .01020 | .01020 | 328.02000 |
| 3.499 | 16.306 | .13460 | 1976.80000 | .01010 | .01000 | .00990 | .00990 | .00990 | .00980 | .00980 | 328.02000 |
| 3.499 | 18.338 | .13070 | 1976.80000 | .00990 | .00990 | .00990 | .00990 | .00990 | .00980 | .00980 | 328.02000 |
| 3.499 | 20.373 | .13040 | 1976.80000 | .01000 | .00980 | .00980 | .00970 | .00970 | .00960 | .00960 | 328.02000 |
| 3.499 | 22.417 | .12840 | 1976.80000 | .00970 | .00950 | .00950 | .00950 | .00950 | .00950 | .00950 | 328.02000 |
| 3.499 | 24.453 | .12570 | 1976.80000 | .00950 | .00920 | .00920 | .00930 | .00930 | .00930 | .00920 | 328.02000 |
| 3.499 | 25.463 | .12590 | 1976.80000 | .00920 | .00910 | .00890 | .00890 | .00890 | .00890 | .00890 | 328.02000 |
| 3.499 | GRADIENT | .00002 | -.00002 | -.00015 | -.00015 | -.00015 | -.00017 | -.00020 | -.00020 | -.00017 | -.00000 |

RUN NO. 428/ 0 RV/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT11/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|----------|--------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 3.499 | -1.170 | .10220 | 2669.20001 | .00720 | .00710 | .00700 | .00720 | .00720 | .00720 | .00720 | 300.41000 |
| 3.499 | 1.251 | .10040 | 2669.89999 | .00710 | .00700 | .00700 | .00700 | .00700 | .00700 | .00700 | 300.41000 |
| 3.499 | 3.276 | .09980 | 2669.20001 | .00680 | .00670 | .00670 | .00680 | .00680 | .00680 | .00680 | 300.41000 |
| 3.499 | 5.298 | .09930 | 2669.89999 | .00650 | .00650 | .00650 | .00650 | .00650 | .00650 | .00650 | 300.41000 |
| 3.499 | 7.320 | .09990 | 2670.70001 | .00640 | .00640 | .00640 | .00640 | .00640 | .00640 | .00640 | 300.41000 |
| 3.499 | 9.349 | .09520 | 2669.20001 | .00610 | .00600 | .00590 | .00590 | .00590 | .00590 | .00590 | 300.41000 |
| 3.499 | 11.374 | .09730 | 2670.70001 | .00600 | .00590 | .00580 | .00590 | .00590 | .00590 | .00590 | 300.41000 |
| 3.499 | 14.006 | .09250 | 2669.20001 | .00590 | .00580 | .00580 | .00580 | .00580 | .00580 | .00580 | 300.41000 |
| 3.499 | 16.032 | .09120 | 2670.70001 | .00560 | .00560 | .00560 | .00560 | .00560 | .00560 | .00560 | 300.41000 |
| 3.499 | 18.064 | .09010 | 2668.50000 | .00550 | .00550 | .00550 | .00550 | .00550 | .00550 | .00550 | 300.41000 |
| 3.499 | 20.103 | .08880 | 2670.70001 | .00540 | .00540 | .00540 | .00540 | .00540 | .00540 | .00540 | 300.41000 |
| 3.499 | 22.134 | .08650 | 2669.89999 | .00530 | .00520 | .00520 | .00520 | .00530 | .00530 | .00520 | 300.41000 |
| 3.499 | 24.170 | .08370 | 2669.89999 | .00500 | .00500 | .00500 | .00500 | .00500 | .00500 | .00500 | 300.41000 |
| 3.499 | 25.188 | .08660 | 2669.89999 | .00550 | .00540 | .00540 | .00520 | .00540 | .00540 | .00540 | 300.41000 |
| 3.499 | GRADIENT | .00059 | -.00005 | -.00010 | -.00010 | -.00007 | -.00013 | -.00007 | -.00007 | -.00013 | -.00000 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(BETR16) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .584 | .086 | 2.24440 | 2576.0000 | .74910 | .74630 | .74790 | .74630 | .74920 | .74890 | .73630 | .0165F1 |
| .587 | 2.138 | 2.28050 | 2593.6001 | .74630 | .74670 | .74660 | .74650 | .74730 | .74780 | .74360 | 501.56000 |
| .593 | 4.199 | 2.29800 | 2593.6901 | .74720 | .74640 | .74690 | .74610 | .74610 | .74740 | .74440 | 508.63000 |
| .595 | 6.276 | 2.30490 | 2580.1001 | .74630 | .74820 | .74770 | .74760 | .74760 | .74850 | .75560 | 508.26000 |
| .595 | 8.369 | 2.31160 | 2580.1001 | .74770 | .74780 | .74770 | .74790 | .74750 | .74836 | .75270 | 503.35000 |
| .594 | 10.474 | 2.32090 | 2580.79999 | .74790 | .74770 | .74610 | .74690 | .74670 | .74720 | .75020 | 502.78000 |
| .586 | 12.626 | 2.30908 | 2581.98000 | .74610 | .74570 | .74550 | .74540 | .74550 | .74670 | .74830 | 504.94000 |
| .597 | 14.793 | 2.29150 | 2582.20001 | .74320 | .74450 | .74540 | .74430 | .74380 | .74440 | .74650 | 505.72000 |
| .587 | 16.893 | 2.29250 | 2582.20001 | .74160 | .74120 | .74060 | .74070 | .74040 | .74020 | .74460 | 506.30000 |
| .597 | 19.000 | 2.27740 | 2581.50000 | .73730 | .73770 | .73810 | .73880 | .73900 | .73940 | .74220 | 505.70000 |
| .595 | 21.092 | 2.28580 | 2581.50000 | .73500 | .73620 | .73640 | .73690 | .73500 | .73440 | .73830 | 503.37000 |
| .595 | 23.175 | 2.28650 | 2582.20001 | .73140 | .73090 | .73100 | .73100 | .73090 | .73000 | .73460 | 505.14000 |
| .596 | 25.217 | 2.31380 | 2582.20001 | .72450 | .72580 | .72460 | .72580 | .72340 | .72560 | .72950 | 504.56000 |
| .597 | 26.149 | 2.34230 | 2582.20001 | .71720 | .71680 | .71880 | .71750 | .71810 | .71710 | .72420 | 506.30000 |
| | GRADIENT | .01304 | 3.79217 | .00046 | .00054 | .00036 | .00031 | .00075 | .00036 | .00197 | 1.62846 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .688 | .081 | 2.26230 | 2356.60001 | .67280 | .67420 | .67280 | .67420 | .67240 | .67290 | .66650 | 0165F1 |
| .693 | 2.134 | 2.29380 | 2372.10001 | .67230 | .67320 | .67280 | .67300 | .67230 | .67250 | .79250 | 590.72000 |
| .699 | 4.209 | 2.31000 | 2311.39999 | .67180 | .67180 | .67260 | .67260 | .67160 | .67300 | .71060 | 570.69000 |
| .697 | 6.295 | 2.31950 | 2310.70001 | .67400 | .67400 | .67400 | .67510 | .67160 | .67380 | .69500 | 578.57000 |
| .698 | 8.411 | 2.31650 | 2311.39999 | .67240 | .67170 | .67290 | .67210 | .67290 | .67220 | .69500 | 567.86000 |
| .697 | 10.528 | 2.32410 | 2310.70001 | .67120 | .67290 | .67220 | .67320 | .67160 | .67280 | .67930 | 568.40000 |
| .685 | 12.671 | 2.30890 | 2310.70001 | .67190 | .67130 | .66980 | .66930 | .67040 | .67060 | .67540 | 566.79000 |
| .695 | 14.812 | 2.30570 | 2310.70001 | .66670 | .66620 | .66740 | .66670 | .66640 | .66780 | .67160 | 567.39000 |
| .686 | 16.964 | 2.28540 | 2310.70001 | .66210 | .66210 | .66210 | .66340 | .66330 | .66290 | .66890 | 567.32000 |
| .695 | 19.083 | 2.29340 | 2310.70001 | .65710 | .65650 | .65710 | .65710 | .65710 | .65710 | .66470 | 569.25000 |
| .694 | 21.189 | 2.28540 | 2310.70001 | .65400 | .65400 | .65400 | .65320 | .65310 | .65400 | .66010 | 554.63000 |
| .694 | 23.263 | 2.28410 | 2310.70001 | .64950 | .64950 | .64420 | .64420 | .64440 | .64460 | .63460 | 565.17000 |
| .696 | 25.304 | 2.32800 | 2309.89999 | .63710 | .63420 | .63080 | .63080 | .63310 | .63190 | .64460 | 568.20000 |
| .686 | 26.222 | 2.37240 | 2309.89999 | .62270 | .62400 | .62390 | .62400 | .62150 | .62150 | .63460 | 566.70000 |
| | GRADIENT | .01155 | -10.93241 | .00027 | .00058 | .00085 | .00034 | .00019 | .00053 | .03777 | -2.45485 |

(BETR16) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.720

TABULATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-084 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8800 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 373.0000 IN. Z0
SCALE = .0300

RUN# NO. 40 / 0 RNAL = 4.23 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .799 | .046 | 2.27530 | 2198.20001 | .59460 | .59370 | .59340 | .59340 | .59300 | .59430 | .57980 | 644.73002 |
| .799 | 2.130 | 2.28420 | 2193.20001 | .59440 | .59510 | .59510 | .59550 | .59530 | .59510 | .59120 | 645.21002 |
| .799 | 4.224 | 2.30850 | 2198.20001 | .59480 | .59410 | .59500 | .59480 | .59530 | .59610 | .59340 | 644.73002 |
| .798 | 6.335 | 2.30850 | 2198.20001 | .59860 | .59740 | .59640 | .59670 | .59670 | .59560 | .59400 | 643.76000 |
| .797 | 9.455 | 2.31030 | 2198.20001 | .59590 | .59620 | .59570 | .59610 | .59570 | .59700 | .59590 | 643.27000 |
| .797 | 10.559 | 2.31590 | 2198.20001 | .59580 | .59590 | .59580 | .59440 | .59500 | .59530 | .59230 | 642.34000 |
| .798 | 12.722 | 2.30660 | 2198.89999 | .59260 | .59270 | .59270 | .59170 | .59200 | .59330 | .58980 | 642.83000 |
| .798 | 14.872 | 2.30930 | 2198.89999 | .58710 | .58690 | .58700 | .58640 | .58640 | .58530 | .58230 | 643.83000 |
| .797 | 17.050 | 2.32270 | 2198.20001 | .58430 | .58320 | .58400 | .58470 | .58320 | .58250 | .58150 | 644.73002 |
| .799 | 19.176 | 2.31460 | 2198.89999 | .57630 | .58040 | .58160 | .57910 | .57890 | .57890 | .57890 | 641.37000 |
| .795 | 21.276 | 2.30770 | 2198.89999 | .57250 | .57000 | .57028 | .56720 | .56980 | .56800 | .56420 | 642.39000 |
| .796 | 23.367 | 2.31870 | 2199.50001 | .55480 | .55210 | .55230 | .55220 | .55490 | .55410 | .55250 | 641.37000 |
| .795 | 25.373 | 2.31740 | 2198.89999 | .53050 | .53250 | .53080 | .53020 | .53440 | .53440 | .53250 | 644.28000 |
| .798 | 26.301 | 2.39820 | 2198.89999 | .53308 | .52980 | .52940 | .52850 | .52770 | .52850 | .54170 | 644.28000 |
| | GRADIENT | .00747 | -.00002 | .00805 | .00010 | .00031 | .00033 | .00955 | .00043 | .00325 | -.00020 |

RUN# NO. 47 / 0 RNAL = 4.22 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .847 | .058 | 2.25640 | 2155.10001 | .55560 | .55940 | .55630 | .55680 | .55660 | .55610 | .53630 | 677.21000 |
| .850 | 2.141 | 2.29200 | 2155.50000 | .55570 | .55640 | .55580 | .55560 | .55560 | .55580 | .54440 | 679.60000 |
| .848 | 4.241 | 2.30630 | 2155.79999 | .59600 | .55660 | .55700 | .55610 | .55740 | .55680 | .54960 | 676.35000 |
| .847 | 6.353 | 2.31230 | 2155.90000 | .55800 | .55750 | .55800 | .55900 | .55900 | .55570 | .55230 | 675.94000 |
| .847 | 8.473 | 2.31270 | 2155.79999 | .55630 | .55590 | .55640 | .55600 | .55630 | .55630 | .55370 | 676.80000 |
| .847 | 10.588 | 2.32410 | 2156.50000 | .55260 | .55400 | .55360 | .55510 | .55480 | .55290 | .55320 | 675.86000 |
| .845 | 12.750 | 2.31400 | 2157.20001 | .54840 | .55140 | .54960 | .54990 | .55080 | .54750 | .54750 | 678.91000 |
| .847 | 14.961 | 2.31980 | 2156.50000 | .54560 | .54480 | .54450 | .54420 | .54540 | .54450 | .54330 | 678.26000 |
| .849 | 17.171 | 2.32770 | 2157.20001 | .54950 | .53900 | .53770 | .53860 | .53770 | .53880 | .54330 | 676.09000 |
| .845 | 19.219 | 2.32040 | 2158.60001 | .53180 | .53240 | .53130 | .52840 | .52980 | .52200 | .53000 | 676.45000 |
| .846 | 21.320 | 2.31050 | 2157.20001 | .51930 | .52070 | .52060 | .52240 | .52450 | .50060 | .51550 | 675.13000 |
| .844 | 23.400 | 2.31760 | 2157.89999 | .50100 | .49130 | .50000 | .49700 | .50060 | .49020 | .50570 | 674.62000 |
| .844 | 25.423 | 2.33110 | 2157.20001 | .48670 | .49130 | .49160 | .48410 | .49190 | .49020 | .50570 | 674.62000 |
| .847 | 26.384 | 2.39480 | 2160.00000 | .48090 | .48050 | .47960 | .47941 | .47920 | .48110 | .49370 | 678.93000 |
| | GRADIENT | .01192 | .16563 | .00010 | .00029 | .00017 | .00031 | .00019 | .00017 | .00318 | -.20749 |

TABLATED DATA - OAS1 (ARC 11-97-87-094)
ARC 11-97-87-094 OAS1 ORBITER

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 938.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .901 | .047 | 2.28360 | 2126.79999 | .51490 | .51590 | .51580 | .51590 | .51560 | .51630 | .49450 | 713.50000 |
| .902 | 2.158 | 2.26750 | 2126.79999 | .51630 | .51640 | .51730 | .51680 | .51750 | .51720 | .50410 | 714.74000 |
| .909 | 4.260 | 2.38720 | 2126.79999 | .51980 | .51900 | .51880 | .51880 | .51720 | .51830 | .51000 | 712.22000 |
| .900 | 6.377 | 2.31210 | 2126.79999 | .51700 | .51780 | .51810 | .51810 | .51750 | .51790 | .51370 | 713.08000 |
| .899 | 8.494 | 2.31310 | 2126.79999 | .51900 | .51840 | .51820 | .51820 | .51680 | .51650 | .51620 | 711.79000 |
| .892 | 10.626 | 2.32430 | 2127.50000 | .51280 | .51270 | .51370 | .51410 | .51360 | .51380 | .51510 | 712.71000 |
| .898 | 12.790 | 2.28850 | 2126.79999 | .50950 | .50860 | .50790 | .50590 | .50640 | .50480 | .51130 | 711.36000 |
| .897 | 14.944 | 2.33290 | 2127.50000 | .49570 | .49310 | .49440 | .49250 | .50240 | .50160 | .50770 | 710.99000 |
| .898 | 17.129 | 2.33390 | 2126.79999 | .48530 | .48530 | .48530 | .48160 | .48860 | .48380 | .50120 | 710.92000 |
| .896 | 19.271 | 2.31860 | 2126.79999 | .47470 | .47470 | .47400 | .47141 | .48670 | .48670 | .49520 | 710.66000 |
| .896 | 21.382 | 2.31240 | 2126.79999 | .44960 | .44800 | .44630 | .44821 | .44750 | .46990 | .48330 | 709.63000 |
| .899 | 23.479 | 2.32090 | 2127.50000 | .43130 | .43500 | .43360 | .44251 | .43550 | .46900 | .46790 | 712.28000 |
| .896 | 25.502 | 2.32810 | 2127.50000 | .43400 | .43220 | .43080 | .42630 | .43060 | .43450 | .45400 | 710.12000 |
| .896 | 26.446 | 2.38450 | 2126.10101 | .00116 | .00074 | .00074 | .00069 | .00038 | .43060 | .44400 | 709.57000 |
| | GRADIENT | .00560 | -.00002 | .00116 | .00074 | .00074 | .00069 | .00038 | .00047 | .00360 | -.30319 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .951 | .071 | 2.26340 | 2086.39999 | .46670 | .46440 | .46380 | .46250 | .46350 | .46430 | .44310 | 737.99000 |
| .949 | 2.173 | 2.29210 | 2086.60001 | .47230 | .46920 | .47130 | .47870 | .47010 | .47260 | .45490 | 735.73000 |
| .949 | 4.286 | 2.31060 | 2084.29999 | .46950 | .46930 | .46920 | .46620 | .46590 | .46560 | .45910 | 738.20000 |
| .949 | 6.417 | 2.32440 | 2096.70001 | .46560 | .46640 | .46690 | .46640 | .46730 | .46850 | .46180 | 736.36000 |
| .949 | 8.557 | 2.32730 | 2085.70001 | .46440 | .46530 | .46500 | .45921 | .46730 | .46800 | .46510 | 736.74000 |
| .948 | 10.699 | 2.32950 | 2085.00000 | .46290 | .46300 | .46280 | .45921 | .45880 | .45930 | .46300 | 736.51000 |
| .949 | 12.867 | 2.29500 | 2085.70001 | .45090 | .44660 | .44890 | .44701 | .44630 | .44650 | .45550 | 736.36000 |
| .951 | 15.027 | 2.32490 | 2086.39999 | .44310 | .44230 | .44310 | .44333 | .44490 | .44690 | .45180 | 737.99000 |
| .948 | 17.228 | 2.35760 | 2086.70001 | .43410 | .43630 | .43500 | .43441 | .43330 | .43260 | .44290 | 735.97800 |
| .946 | 19.368 | 2.34290 | 2085.70001 | .43930 | .43610 | .43510 | .43231 | .42970 | .42930 | .43750 | 734.44000 |
| .950 | 21.492 | 2.31360 | 2086.39999 | .41330 | .41250 | .41600 | .41451 | .41460 | .42760 | .42760 | 737.68000 |
| .951 | 23.565 | 2.32290 | 2088.60001 | .39700 | .39450 | .38600 | .38651 | .40040 | .39880 | .41370 | 739.01000 |
| .952 | 25.630 | 2.35080 | 2087.89999 | .38620 | .38640 | .38661 | .38661 | .38740 | .38400 | .40180 | 739.32000 |
| .948 | 26.557 | 2.41010 | 2089.70001 | .37940 | .37500 | .37760 | .38141 | .37960 | .37870 | .38010 | 735.56000 |
| | GRADIENT | .01120 | -.49743 | .00056 | .00123 | .00128 | .00083 | .00057 | .00031 | .00319 | -.42410 |

TABULATED DATA - 0A161 (ARC 11-97-87-09M)
ARC 11-97-87-09M 0A161 ORBITER

REFERENCE DATA

SFEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.8800 IN. ZMRP = 375.0800 IN. ZQ
SCALE = .0500

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
A1LRON = .000 BOFLAP = -7.170

RUN NO. 61/ 0 RVAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF1 |
|------|--------|---------|------------|--------|---------|--------|--------|---------|---------|--------|-----------|
| .979 | .050 | 2.28580 | 2073.70800 | .42410 | .42330 | .42390 | .42410 | .42440 | .42530 | .40940 | 753.33000 |
| .979 | 2.172 | 2.28650 | 2073.70001 | .42580 | .42840 | .42910 | .43020 | .42440 | .42840 | .41760 | 752.95000 |
| .980 | 4.291 | 2.29910 | 2077.29999 | .42170 | .42820 | .42390 | .42540 | .42400 | .42200 | .42040 | 755.24000 |
| .979 | 8.424 | 2.31030 | 2075.10001 | .42340 | .42280 | .42450 | .42350 | .42440 | .42390 | .42260 | 753.87000 |
| .979 | 8.576 | 2.30840 | 2074.39999 | .41990 | .41950 | .42130 | .42300 | .42300 | .42330 | .42290 | 753.94000 |
| .979 | 10.733 | 2.30880 | 2077.29999 | .41730 | .41860 | .41790 | .41570 | .41650 | .41720 | .41950 | 754.50000 |
| .984 | 12.907 | 2.29380 | 2075.79999 | .41350 | .41240 | .41570 | .40810 | .40960 | .41530 | .41740 | 759.44000 |
| .979 | 14.709 | 2.19390 | 2074.39999 | .41350 | .41240 | .41570 | .40480 | .41460 | .41550 | .41680 | 753.04000 |
| .980 | 15.065 | 2.34370 | 2076.50000 | .40480 | .40590 | .40340 | .40200 | .40040 | .40670 | .40270 | 754.21000 |
| .979 | 17.274 | 2.33400 | 2076.50000 | .39440 | .39440 | .39400 | .39270 | .39040 | .39280 | .39580 | 754.29000 |
| .979 | 19.426 | 2.32120 | 2075.79999 | .38810 | .38810 | .39390 | .39653 | .39530 | .39580 | .39830 | 754.20000 |
| .979 | 21.560 | 2.31720 | 2076.50000 | .37420 | .37700 | .37410 | .37220 | .37140 | .37140 | .37140 | 754.96000 |
| .980 | 23.642 | 2.32100 | 2078.00000 | .36170 | .35820 | .35830 | .35860 | .36170 | .36230 | .37670 | 753.21000 |
| .978 | 25.895 | 2.33680 | 2075.79999 | .35040 | .35150 | .35160 | .35130 | .35210 | .35400 | .36760 | 754.42000 |
| .979 | 26.646 | 2.40580 | 2076.50000 | .00016 | -.08026 | .00000 | .00037 | -.09009 | -.00878 | .00259 | 45024 |

RUN NO. 68/ 0 RVAL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF1 |
|-------|--------|---------|------------|--------|---------|--------|--------|---------|--------|--------|-----------|
| 1.052 | .079 | 2.28230 | 2041.89999 | .36250 | .36340 | .36250 | .36170 | .36200 | .36100 | .34640 | 785.64000 |
| 1.053 | 2.188 | 2.29200 | 2044.00000 | .35840 | .35860 | .35950 | .36030 | .35940 | .36000 | .35180 | 787.23000 |
| 1.051 | 4.308 | 2.30720 | 2040.50000 | .36250 | .36280 | .36180 | .36190 | .36150 | .36250 | .35630 | 784.47000 |
| 1.049 | 6.442 | 2.32200 | 2039.80000 | .36080 | .36020 | .36020 | .35950 | .35930 | .36000 | .35770 | 783.41000 |
| 1.054 | 8.681 | 2.32110 | 2043.30000 | .35850 | .35720 | .35710 | .35780 | .35890 | .36030 | .35770 | 785.65000 |
| 1.050 | 10.757 | 2.32100 | 2040.50000 | .35590 | .35726 | .35640 | .35550 | .35520 | .35400 | .35590 | 784.75000 |
| 1.051 | 12.925 | 2.29680 | 2041.89999 | .34740 | .34910 | .34910 | .34990 | .35200 | .35090 | .35330 | 784.75000 |
| 1.049 | 15.103 | 2.34200 | 2041.20000 | .34480 | .34510 | .34360 | .34110 | .34290 | .34240 | .34820 | 782.38000 |
| 1.052 | 17.331 | 2.34180 | 2040.50000 | .33800 | .33840 | .33800 | .33690 | .33800 | .33820 | .34380 | 784.15000 |
| 1.051 | 19.502 | 2.33340 | 2043.30000 | .33970 | .34010 | .33850 | .33848 | .33910 | .33950 | .34160 | 784.29000 |
| 1.048 | 21.629 | 2.33970 | 2041.20000 | .33270 | .33260 | .33270 | .33270 | .33200 | .33290 | .33780 | 783.01000 |
| 1.057 | 23.723 | 2.34310 | 2045.39999 | .31730 | .31680 | .31660 | .31670 | .31870 | .31790 | .32920 | 789.94000 |
| 1.057 | 25.786 | 2.35830 | 2042.60001 | .30980 | .30940 | .30940 | .31210 | .31100 | .31150 | .32150 | 788.58000 |
| 1.052 | 26.758 | 2.41540 | 2043.30000 | .00040 | -.00014 | .00000 | .00016 | -.00012 | .00035 | .00234 | 45024 |

TABULATED DATA - 0A161 (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A161 ORBITER

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
A11RON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1P5F1 |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.089 | .051 | 2.27180 | 2011.50000 | .33650 | .33680 | .33670 | .33700 | .33750 | .33720 | .32330 | 797.49000 |
| 1.108 | 2.177 | 2.30070 | 2015.00000 | .33610 | .33570 | .33710 | .33590 | .33620 | .33580 | .32080 | 799.53000 |
| 1.100 | 4.302 | 2.29540 | 2015.00000 | .33460 | .33530 | .33520 | .33480 | .33440 | .33400 | .33250 | 797.25000 |
| 1.098 | 6.436 | 2.30930 | 2012.89999 | .33490 | .33520 | .33470 | .33420 | .33380 | .33340 | .33310 | 798.15000 |
| 1.097 | 8.597 | 2.31950 | 2015.00000 | .33280 | .33350 | .33360 | .33240 | .33210 | .33160 | .33120 | 798.15000 |
| 1.097 | 10.732 | 2.31890 | 2015.00000 | .33180 | .33130 | .33170 | .33150 | .33120 | .33080 | .33050 | 798.15000 |
| 1.098 | 12.932 | 2.32930 | 2014.30000 | .32830 | .32830 | .32840 | .32860 | .32820 | .32820 | .32820 | 798.05000 |
| 1.100 | 15.118 | 2.34400 | 2016.38999 | .32170 | .32150 | .32180 | .32180 | .32150 | .32100 | .32020 | 798.80000 |
| 1.099 | 17.346 | 2.34110 | 2015.00000 | .31740 | .31740 | .31870 | .31870 | .31850 | .31820 | .31780 | 798.70000 |
| 1.108 | 19.502 | 2.32930 | 2017.60000 | .31580 | .31580 | .31440 | .31440 | .31480 | .31480 | .31390 | 800.34000 |
| 1.101 | 21.625 | 2.32240 | 2017.10000 | .30550 | .30530 | .30560 | .30580 | .30568 | .30530 | .30550 | 800.48000 |
| 1.093 | 23.717 | 2.32930 | 2017.80000 | .30270 | .30270 | .30280 | .30250 | .30200 | .30170 | .30180 | 800.65000 |
| 1.099 | 25.801 | 2.33560 | 2017.10000 | .28810 | .28740 | .28890 | .28880 | .28730 | .28770 | .28770 | 799.93000 |
| 1.099 | 26.765 | 2.42250 | 2015.70000 | .28770 | .28880 | .28940 | .28950 | .28950 | .28960 | .28990 | 799.11000 |
| | GRADIENT | .00555 | .82326 | -.00045 | -.00035 | -.00035 | -.00052 | -.00047 | -.00052 | .00188 | -.4798A |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1P5F1 |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.149 | .071 | 2.27590 | 2004.39999 | .31030 | .30830 | .30940 | .31030 | .30940 | .30960 | .29930 | 815.79000 |
| 1.151 | 2.175 | 2.30680 | 2002.30000 | .30850 | .30850 | .30750 | .30830 | .30720 | .30780 | .30350 | 815.57000 |
| 1.150 | 4.291 | 2.31090 | 2003.00000 | .31100 | .30970 | .31070 | .31080 | .30990 | .31100 | .30750 | 815.49000 |
| 1.147 | 6.426 | 2.31460 | 2002.10000 | .30970 | .30980 | .31070 | .31090 | .31050 | .31060 | .30640 | 815.47000 |
| 1.148 | 8.591 | 2.32190 | 2004.39999 | .30710 | .30840 | .30710 | .30590 | .30680 | .30540 | .30710 | 815.22000 |
| 1.147 | 10.754 | 2.31430 | 2004.39999 | .30370 | .30430 | .30420 | .30470 | .30320 | .30490 | .30610 | 815.08000 |
| 1.149 | 12.932 | 2.29340 | 2004.39999 | .30140 | .30130 | .30170 | .30040 | .29970 | .30000 | .30370 | 815.32000 |
| 1.156 | 15.107 | 2.34420 | 2004.39999 | .29510 | .29440 | .29550 | .29620 | .29500 | .29610 | .29970 | 815.27000 |
| 1.146 | 17.325 | 2.34450 | 2001.60000 | .29810 | .29690 | .29650 | .29650 | .29600 | .29640 | .29640 | 813.54000 |
| 1.150 | 19.483 | 2.33280 | 2003.00000 | .29090 | .29236 | .29310 | .29260 | .29300 | .29300 | .29330 | 815.25000 |
| 1.149 | 21.606 | 2.32420 | 2003.00000 | .28590 | .28620 | .28610 | .28630 | .28630 | .28660 | .28930 | 815.25000 |
| 1.152 | 23.714 | 2.33050 | 2005.50000 | .28150 | .28300 | .28310 | .28310 | .28310 | .28300 | .28930 | 817.68000 |
| 1.148 | 25.801 | 2.35380 | 2003.79000 | .27100 | .27050 | .27680 | .27110 | .27120 | .27260 | .26150 | 815.17000 |
| 1.146 | 26.765 | 2.41550 | 2003.00000 | .27260 | .27180 | .27290 | .27340 | .27300 | .27300 | .26760 | 814.06000 |
| | GRADIENT | .00829 | -.33115 | .00817 | .00033 | .00931 | .00012 | .00019 | .00063 | .00194 | -.07107 |

TABLATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LEEF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 2.000 ELEVON = .080
AICRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RUN NO. 84/ 0 RWL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|---------|------------|--------|--------|--------|--------|---------|--------|--------|-----------|
| 1.201 | .050 | 2.29310 | 2005.10001 | .28090 | .28100 | .28060 | .28150 | .28180 | .28080 | .27490 | 833.67000 |
| 1.200 | 2.162 | 2.29810 | 2007.89999 | .28270 | .28250 | .28240 | .28230 | .28250 | .28170 | .27770 | 834.58000 |
| 1.199 | 4.274 | 2.29660 | 2005.80000 | .28140 | .28180 | .28230 | .28190 | .28090 | .28080 | .27940 | 833.46000 |
| 1.197 | 6.420 | 2.30700 | 2007.89999 | .28260 | .28250 | .28310 | .28310 | .28500 | .27980 | .28170 | 833.60000 |
| 1.199 | 8.583 | 2.31680 | 2007.89999 | .27930 | .28010 | .27970 | .28040 | .28040 | .27980 | .28081 | 833.99000 |
| 1.195 | 10.748 | 2.30980 | 2006.50000 | .27850 | .27861 | .27780 | .27820 | .27830 | .27920 | .28030 | 832.65000 |
| 1.197 | 12.928 | 2.29980 | 2011.50000 | .27320 | .27280 | .27200 | .27230 | .27240 | .27200 | .27700 | 835.08000 |
| 1.195 | 15.099 | 2.33360 | 2006.50000 | .26660 | .26730 | .26800 | .26800 | .26730 | .26880 | .27240 | 832.85000 |
| 1.195 | 17.350 | 2.33840 | 2007.89999 | .26210 | .26160 | .26210 | .26230 | .26210 | .26290 | .26910 | 833.40000 |
| 1.194 | 19.481 | 2.32490 | 2003.39999 | .26150 | .26330 | .26280 | .26170 | .26150 | .26050 | .26470 | 833.59000 |
| 1.189 | 21.601 | 2.30580 | 2005.80000 | .26430 | .26420 | .26590 | .26470 | .26470 | .26400 | .26430 | 834.46000 |
| 1.191 | 23.709 | 2.32890 | 2010.10001 | .26060 | .26070 | .26970 | .25850 | .25920 | .25760 | .25780 | 832.76000 |
| 1.189 | 25.797 | 2.35140 | 2010.10001 | .25770 | .25800 | .25660 | .25510 | .25340 | .25290 | .25790 | 831.91000 |
| 1.194 | 26.822 | 2.35710 | 2007.20000 | .25200 | .25100 | .25170 | .25050 | .24970 | .25220 | .25430 | 832.42000 |
| | GRADIENT | .00083 | .16575 | .00012 | .00019 | .00040 | .00003 | -.00002 | .00000 | .00007 | -.04970 |

RUN NO. 88/ 0 RWL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|---------|------------|--------|--------|--------|--------|---------|--------|--------|-----------|
| 1.297 | .056 | 2.28830 | 2005.10001 | .23510 | .23470 | .23480 | .23430 | .23430 | .23420 | .22750 | 855.64000 |
| 1.299 | 2.147 | 2.32100 | 2003.70000 | .23410 | .23400 | .23480 | .23420 | .23490 | .23410 | .23420 | 855.30000 |
| 1.296 | 4.288 | 2.32850 | 2003.70000 | .23520 | .23570 | .23610 | .23560 | .23560 | .23570 | .23320 | 854.95000 |
| 1.295 | 6.382 | 2.30360 | 2004.39999 | .23540 | .23510 | .23570 | .23570 | .23620 | .23560 | .23320 | 854.18000 |
| 1.295 | 8.552 | 2.31400 | 2003.70000 | .23470 | .23490 | .23500 | .23540 | .23450 | .23450 | .23390 | 854.83000 |
| 1.294 | 10.717 | 2.31550 | 2004.39999 | .23260 | .23210 | .23250 | .23240 | .23450 | .23260 | .23320 | 854.94000 |
| 1.294 | 12.893 | 2.30060 | 2004.39999 | .23000 | .22950 | .22880 | .22880 | .22910 | .22970 | .23170 | 854.94000 |
| 1.294 | 15.061 | 2.32890 | 2004.39999 | .22470 | .22480 | .22480 | .22540 | .22530 | .22540 | .22870 | 854.62000 |
| 1.294 | 17.276 | 2.35860 | 2003.70000 | .22240 | .22260 | .22280 | .22210 | .22220 | .22220 | .22570 | 854.72000 |
| 1.293 | 19.434 | 2.32980 | 2004.39999 | .21900 | .21840 | .21890 | .21920 | .21890 | .21830 | .22110 | 854.62000 |
| 1.291 | 21.565 | 2.32000 | 2005.10001 | .21850 | .21830 | .21820 | .21790 | .21820 | .21830 | .21950 | 855.63000 |
| 1.295 | 23.670 | 2.32560 | 2005.60000 | .21650 | .21660 | .21670 | .21650 | .21750 | .21800 | .21580 | 855.40000 |
| 1.292 | 25.779 | 2.35450 | 2006.50000 | .21220 | .21200 | .21160 | .21140 | .21140 | .21100 | .21390 | 855.52000 |
| 1.293 | 26.812 | 2.36020 | 2006.50000 | .20890 | .20890 | .20890 | .20810 | .20820 | .20690 | .21390 | 855.52000 |
| | GRADIENT | .00956 | -.33259 | .00002 | .00024 | .00031 | .00022 | -.00031 | .00035 | .00136 | -.16418 |

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BDFIAP = -7.170

RUN NO. 91/ 0 RV/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OMPSF1 |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.401 | .030 | 2.25650 | 2029.89999 | .19540 | .19540 | .19520 | .19540 | .19530 | .19530 | .19160 | 875.17000 |
| 1.401 | 2.122 | 2.27330 | 2023.89999 | .19640 | .19640 | .19620 | .19640 | .19610 | .19570 | .19360 | 875.17000 |
| 1.400 | 4.236 | 2.34330 | 2029.89999 | .19630 | .19630 | .19630 | .19630 | .19610 | .19650 | .19490 | 875.16000 |
| 1.400 | 6.364 | 2.33140 | 2023.89999 | .19820 | .19820 | .19810 | .19850 | .19850 | .19850 | .19690 | 875.16000 |
| 1.399 | 8.519 | 2.31730 | 2030.60001 | .19730 | .19730 | .19730 | .19770 | .19830 | .19730 | .19570 | 875.16000 |
| 1.397 | 10.672 | 2.31590 | 2031.30000 | .19420 | .19420 | .19410 | .19390 | .19380 | .19420 | .19260 | 875.16000 |
| 1.399 | 12.843 | 2.30140 | 2030.60001 | .19040 | .19040 | .19100 | .19050 | .19050 | .19080 | .18920 | 875.16000 |
| 1.398 | 15.006 | 2.32310 | 2031.30000 | .19300 | .19300 | .18950 | .19010 | .18950 | .18960 | .18800 | 875.16000 |
| 1.399 | 17.225 | 2.34430 | 2029.89999 | .18890 | .18890 | .18680 | .18670 | .18650 | .18710 | .18550 | 875.16000 |
| 1.401 | 19.389 | 2.31560 | 2050.39999 | .18520 | .18520 | .18510 | .18470 | .18470 | .18600 | .18440 | 875.16000 |
| 1.397 | 21.560 | 2.29020 | 2051.79999 | .18610 | .18610 | .18540 | .18550 | .18510 | .18590 | .18430 | 875.16000 |
| 1.399 | 23.636 | 2.33630 | 2049.00000 | .18599 | .18599 | .18590 | .18570 | .18590 | .18590 | .18430 | 875.16000 |
| 1.399 | 25.743 | 2.33960 | 2049.00000 | .17720 | .17720 | .17730 | .17730 | .17730 | .17650 | .17550 | 875.16000 |
| 1.395 | 26.784 | 2.31700 | 2043.30000 | .17530 | .17530 | .17530 | .17570 | .17550 | .17550 | .17390 | 875.16000 |
| | GRADIENT | .02066 | .00000 | .00007 | .00007 | .00026 | .00021 | .00019 | .00029 | .00078 | .00237 |

RUN NO. 324/ 0 RV/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OMPSF1 |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.556 | .034 | 1.52120 | 1536.20000 | .14460 | .14460 | .14480 | .14480 | .14470 | .14440 | .14530 | 653.60000 |
| 1.556 | 2.023 | 1.53170 | 1536.20000 | .14500 | .14510 | .14490 | .14490 | .14450 | .14510 | .14490 | 653.60000 |
| 1.556 | 4.100 | 1.52240 | 1536.20000 | .14520 | .14510 | .14520 | .14490 | .14520 | .14510 | .14510 | 653.60000 |
| 1.556 | 6.172 | 1.52130 | 1536.89999 | .14730 | .14660 | .14700 | .14700 | .14650 | .14660 | .14660 | 653.60000 |
| 1.556 | 8.243 | 1.52190 | 1536.89999 | .14380 | .14330 | .14470 | .14600 | .14300 | .14300 | .14300 | 653.60000 |
| 1.556 | 10.308 | 1.52240 | 1536.20000 | .13920 | .13970 | .13910 | .13930 | .13970 | .13920 | .13920 | 653.60000 |
| 1.556 | 12.355 | 1.52530 | 1536.89999 | .13660 | .13700 | .13670 | .13640 | .13650 | .13640 | .13640 | 653.60000 |
| 1.556 | 14.431 | 1.52840 | 1536.89999 | .13240 | .13370 | .13350 | .13340 | .13360 | .13250 | .13250 | 653.60000 |
| 1.556 | 16.574 | 1.53150 | 1536.89999 | .13220 | .13240 | .13240 | .13240 | .13220 | .13250 | .13270 | 653.60000 |
| 1.556 | 18.669 | 1.53340 | 1536.89999 | .13010 | .13040 | .13040 | .13010 | .13000 | .13030 | .13060 | 653.60000 |
| 1.556 | 20.700 | 1.54050 | 1537.60001 | .12910 | .12920 | .12910 | .12910 | .12900 | .12910 | .12890 | 653.60000 |
| 1.556 | 22.769 | 1.54370 | 1542.60001 | .12300 | .12310 | .12310 | .12310 | .12300 | .12240 | .12280 | 653.60000 |
| 1.556 | 24.864 | 1.54930 | 1544.70000 | .11530 | .11610 | .11580 | .11580 | .11580 | .11600 | .11580 | 653.60000 |
| 1.556 | 25.882 | 1.55150 | 1543.30000 | .11360 | .11360 | .11390 | .11350 | .11380 | .11330 | .11390 | 653.60000 |
| | GRADIENT | .00026 | .00001 | .00015 | .00007 | .00015 | .00002 | .00012 | .00013 | .00005 | .00000 |

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AIRRON = .090 EDFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6900 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0380

| MACH | ALPHA | BETA | PF | FN/L | 3.05 | GRADIENT INTERVAL = -5.00/ 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|-------|----------|---------|------------|---------|---------|---------------------------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.249 | -1.102 | 1.07220 | 2070.20001 | .03590 | .03700 | .03700 | .03690 | .03590 | .03700 | .03700 | .03690 | .03690 | .03680 | 634.80000 |
| 2.249 | 1.873 | 1.07130 | 2070.20001 | .03520 | .03530 | .03530 | .03520 | .03520 | .03530 | .03530 | .03520 | .03520 | .03510 | 634.80000 |
| 2.249 | 3.927 | 1.07630 | 2070.89999 | .03470 | .03510 | .03490 | .03490 | .03470 | .03490 | .03490 | .03470 | .03470 | .03460 | 635.02000 |
| 2.249 | 5.985 | 1.07946 | 2070.89999 | .03750 | .03760 | .03760 | .03750 | .03750 | .03760 | .03760 | .03750 | .03750 | .03740 | 635.02000 |
| 2.249 | 8.039 | 1.08980 | 2070.20001 | .03640 | .03680 | .03660 | .03660 | .03640 | .03660 | .03660 | .03640 | .03640 | .03630 | 634.80000 |
| 2.249 | 10.091 | 1.07160 | 2070.20001 | .03450 | .03430 | .03430 | .03450 | .03450 | .03430 | .03430 | .03450 | .03450 | .03440 | 634.80000 |
| 2.249 | 12.128 | 1.09066 | 2070.89999 | .03210 | .03240 | .03240 | .03210 | .03210 | .03240 | .03240 | .03210 | .03210 | .03200 | 634.80000 |
| 2.249 | 14.207 | 1.08688 | 2070.20001 | .03150 | .03160 | .03160 | .03150 | .03150 | .03160 | .03160 | .03150 | .03150 | .03140 | 634.80000 |
| 2.249 | 16.339 | 1.07460 | 2070.20001 | .03110 | .03120 | .03120 | .03110 | .03110 | .03120 | .03120 | .03110 | .03110 | .03100 | 634.80000 |
| 2.249 | 20.429 | 1.08210 | 2070.20001 | .02980 | .02930 | .02930 | .02980 | .02980 | .02930 | .02930 | .02980 | .02980 | .02970 | 634.80000 |
| 2.249 | 22.541 | 1.09600 | 2070.20001 | .02870 | .02860 | .02860 | .02870 | .02870 | .02860 | .02860 | .02870 | .02870 | .02860 | 634.80000 |
| 2.249 | 24.558 | 1.10270 | 2070.20001 | .02870 | .02880 | .02880 | .02870 | .02870 | .02880 | .02880 | .02870 | .02870 | .02860 | 634.80000 |
| 2.249 | 25.577 | 1.09100 | 2070.20001 | .02760 | .02810 | .02810 | .02760 | .02760 | .02810 | .02810 | .02760 | .02760 | .02750 | 634.80000 |
| | GRADIENT | .00103 | .17486 | -.00054 | -.00044 | -.00052 | -.00052 | -.00054 | -.00052 | -.00054 | -.00055 | -.00045 | -.00047 | .03495 |

| MACH | ALPHA | BETA | PT | FN/L | 1.99 | GRADIENT INTERVAL = -5.00/ 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|-------|----------|---------|------------|---------|---------|---------------------------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.499 | 1.116 | 2.10010 | 1463.89999 | .03060 | .03040 | .03030 | .03060 | .03040 | .03030 | .03030 | .03010 | .03010 | .03010 | 374.72000 |
| 2.499 | 2.152 | 2.08860 | 1463.00000 | .02980 | .02940 | .02950 | .02980 | .02940 | .02950 | .02950 | .02940 | .02940 | .02920 | 375.26000 |
| 2.499 | 4.188 | 2.08010 | 1463.30000 | .02860 | .02870 | .02860 | .02860 | .02860 | .02860 | .02860 | .02860 | .02860 | .02850 | 375.08000 |
| 2.499 | 6.220 | 2.07150 | 1463.30000 | .02886 | .02870 | .02870 | .02886 | .02870 | .02870 | .02870 | .02870 | .02870 | .02870 | 375.08000 |
| 2.499 | 8.255 | 2.06110 | 1463.30000 | .02880 | .02870 | .02870 | .02880 | .02870 | .02870 | .02870 | .02870 | .02870 | .02870 | 375.08000 |
| 2.499 | 10.295 | 2.05650 | 1463.30000 | .02730 | .02720 | .02720 | .02730 | .02730 | .02720 | .02720 | .02730 | .02730 | .02730 | 375.08000 |
| 2.499 | 12.339 | 2.05830 | 1463.30000 | .02550 | .02540 | .02540 | .02550 | .02540 | .02540 | .02540 | .02550 | .02550 | .02540 | 375.08000 |
| 2.499 | 14.379 | 2.05650 | 1463.30000 | .02460 | .02460 | .02460 | .02460 | .02460 | .02460 | .02460 | .02460 | .02460 | .02460 | 375.08000 |
| 2.499 | 16.426 | 2.05586 | 1465.50000 | .02430 | .02430 | .02430 | .02430 | .02430 | .02430 | .02430 | .02430 | .02430 | .02430 | 375.08000 |
| 2.499 | 18.468 | 2.05760 | 1464.00000 | .02400 | .02390 | .02390 | .02400 | .02390 | .02390 | .02390 | .02390 | .02390 | .02380 | 375.26000 |
| 2.499 | 20.508 | 2.06020 | 1465.50000 | .02370 | .02370 | .02370 | .02370 | .02370 | .02370 | .02370 | .02370 | .02370 | .02360 | 375.26000 |
| 2.499 | 22.558 | 2.06500 | 1464.80000 | .02240 | .02210 | .02210 | .02240 | .02210 | .02210 | .02210 | .02240 | .02240 | .02230 | 375.44000 |
| 2.499 | 24.605 | 2.07120 | 1434.80000 | .02210 | .02210 | .02210 | .02210 | .02210 | .02210 | .02210 | .02210 | .02210 | .02210 | 375.44000 |
| 2.499 | 25.626 | 2.07480 | 1465.50000 | .02240 | .02220 | .02220 | .02240 | .02220 | .02220 | .02220 | .02240 | .02240 | .02210 | 375.62000 |
| | GRADIENT | -.00491 | .34413 | -.00049 | -.00047 | -.00044 | -.00044 | -.00049 | -.00044 | -.00042 | -.00037 | -.00032 | -.00037 | .03849 |

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OF POOR QUALITY

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER

(BETR16) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2590.000 SQ.FT. XMRP = 1075.5800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 996.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 422/ 0

RNKL = 1.95 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT1 | PT2/PT2 | PT3/PT3 | PT4/PT4 | PT5/PT5 | PT6/PT6 | PT7/PT7 | O(P5F) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 3.499 | -.172 | 2.25340 | 2682.70001 | .00740 | .00720 | .00720 | .00730 | .01320 | .01310 | .01310 | 301.58000 |
| 3.499 | 1.853 | 2.24258 | 2684.79999 | .00730 | .00720 | .00720 | .00730 | .01260 | .01260 | .01260 | 302.18000 |
| 3.499 | 3.873 | 2.23110 | 2681.25999 | .00720 | .00720 | .00720 | .00730 | .01250 | .01250 | .01250 | 301.75000 |
| 3.499 | 5.901 | 2.22310 | 2685.50000 | .00680 | .00670 | .00670 | .00680 | .01190 | .01200 | .01200 | 302.24000 |
| 3.499 | 7.920 | 2.21690 | 2684.10001 | .00650 | .00650 | .00650 | .00670 | .01160 | .01170 | .01170 | 302.19000 |
| 3.499 | 9.947 | 2.21220 | 2683.39999 | .00580 | .00570 | .00570 | .00580 | .01130 | .01130 | .01130 | 302.55000 |
| 3.499 | 11.976 | 2.20880 | 2682.70001 | .00560 | .00550 | .00550 | .00560 | .01070 | .01060 | .01060 | 302.55000 |
| 3.499 | 14.010 | 2.20590 | 2682.70001 | .00550 | .00540 | .00540 | .00550 | .01040 | .01030 | .01030 | 302.55000 |
| 3.499 | 16.043 | 2.20330 | 2682.70001 | .00530 | .00520 | .00520 | .00530 | .01020 | .01020 | .01020 | 302.55000 |
| 3.499 | 18.075 | 2.20130 | 2682.70001 | .00520 | .00520 | .00520 | .00530 | .01010 | .01010 | .01010 | 302.55000 |
| 3.499 | 20.109 | 2.21600 | 2683.39999 | .00510 | .00510 | .00510 | .00510 | .01000 | .00990 | .00990 | 302.55000 |
| 3.499 | 22.139 | 2.21600 | 2682.70001 | .00510 | .00510 | .00510 | .00510 | .01000 | .00990 | .00990 | 302.55000 |
| 3.499 | 24.178 | 2.22030 | 2682.70001 | .00510 | .00510 | .00510 | .00510 | .01000 | .00990 | .00990 | 302.55000 |
| 3.499 | 25.196 | 2.22290 | 2683.39999 | .00530 | .00520 | .00520 | .00530 | .00990 | .00970 | .00970 | 302.55000 |
| 3.499 | GRADIENT | -.00551 | -.34545 | -.00000 | -.00000 | -.00000 | -.00000 | -.00015 | -.00015 | -.00015 | -.75930 |

RUN NO. 429/ 0

RNKL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT1 | PT2/PT2 | PT3/PT3 | PT4/PT4 | PT5/PT5 | PT6/PT6 | PT7/PT7 | O(P5F) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 3.499 | -.172 | 2.25340 | 2682.70001 | .00740 | .00720 | .00720 | .00730 | .01320 | .01310 | .01310 | 301.58000 |
| 3.499 | 1.853 | 2.24258 | 2684.79999 | .00730 | .00720 | .00720 | .00730 | .01260 | .01260 | .01260 | 302.18000 |
| 3.499 | 3.873 | 2.23110 | 2681.25999 | .00720 | .00720 | .00720 | .00730 | .01250 | .01250 | .01250 | 301.75000 |
| 3.499 | 5.901 | 2.22310 | 2685.50000 | .00680 | .00670 | .00670 | .00680 | .01190 | .01200 | .01200 | 302.24000 |
| 3.499 | 7.920 | 2.21690 | 2684.10001 | .00650 | .00650 | .00650 | .00670 | .01160 | .01170 | .01170 | 302.19000 |
| 3.499 | 9.947 | 2.21220 | 2683.39999 | .00580 | .00570 | .00570 | .00580 | .01130 | .01130 | .01130 | 302.55000 |
| 3.499 | 11.976 | 2.20880 | 2682.70001 | .00560 | .00550 | .00550 | .00560 | .01070 | .01060 | .01060 | 302.55000 |
| 3.499 | 14.010 | 2.20590 | 2682.70001 | .00550 | .00540 | .00540 | .00550 | .01040 | .01030 | .01030 | 302.55000 |
| 3.499 | 16.043 | 2.20330 | 2682.70001 | .00530 | .00520 | .00520 | .00530 | .01020 | .01020 | .01020 | 302.55000 |
| 3.499 | 18.075 | 2.20130 | 2682.70001 | .00520 | .00520 | .00520 | .00530 | .01010 | .01010 | .01010 | 302.55000 |
| 3.499 | 20.109 | 2.21600 | 2683.39999 | .00510 | .00510 | .00510 | .00510 | .01000 | .00990 | .00990 | 302.55000 |
| 3.499 | 22.139 | 2.21600 | 2682.70001 | .00510 | .00510 | .00510 | .00510 | .01000 | .00990 | .00990 | 302.55000 |
| 3.499 | 24.178 | 2.22030 | 2682.70001 | .00510 | .00510 | .00510 | .00510 | .01000 | .00990 | .00990 | 302.55000 |
| 3.499 | 25.196 | 2.22290 | 2683.39999 | .00530 | .00520 | .00520 | .00530 | .00990 | .00970 | .00970 | 302.55000 |
| 3.499 | GRADIENT | -.00551 | -.34545 | -.00000 | -.00000 | -.00000 | -.00000 | -.00015 | -.00015 | -.00015 | -.75930 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

(EETR03) 1 02 AUG 75)

REFERENCE DATA

SPEF = 2680.0000 SQ.FT. XMRP = 1075.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0800 IN. Y0
 BRPF = 986.6800 IN. ZMRP = 575.0000 IN. Z0
 SCALE = .0300

BETA =
 ALPHA =

ELEVON = .000
 EDFLAP = -7.170

RUN NO. 28x 0 RM/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | D(P5F) |
|------|----------|---------|------------|---------|---------|---------|---------|--------|---------|--------|-----------|
| .595 | .110 | 5.34110 | 2578.70901 | .74630 | .74760 | .74760 | .74830 | .74590 | .74780 | .74110 | 502.74000 |
| .596 | 2.152 | 5.35570 | 2572.39999 | .74710 | .74750 | .74750 | .74730 | .74750 | .74530 | .74440 | 503.96000 |
| .596 | 4.218 | 5.37430 | 2580.10001 | .74720 | .74700 | .74680 | .74750 | .74750 | .74770 | .74550 | 504.51000 |
| .595 | 6.303 | 5.37840 | 2579.39999 | .74610 | .74600 | .74630 | .74550 | .74550 | .74620 | .74580 | 503.92000 |
| .595 | 8.393 | 5.38380 | 2580.10001 | .74750 | .74690 | .74710 | .74730 | .74570 | .74630 | .74530 | 504.51000 |
| .595 | 10.516 | 5.37830 | 2580.10001 | .74710 | .74670 | .74780 | .74750 | .74580 | .74720 | .74620 | 505.09000 |
| .596 | 12.637 | 5.37290 | 2580.79999 | .74550 | .74570 | .74540 | .74550 | .74570 | .74530 | .74620 | 505.11000 |
| .594 | 14.748 | 5.35440 | 2590.79999 | .74500 | .74520 | .74530 | .74530 | .74530 | .74530 | .74490 | 502.78000 |
| .595 | 16.852 | 5.36820 | 2580.79999 | .74150 | .74150 | .74150 | .74150 | .74150 | .74100 | .74350 | 504.53000 |
| .596 | 18.967 | 5.37110 | 2580.10001 | .73680 | .73780 | .73680 | .73680 | .73740 | .73870 | .74150 | 504.51000 |
| .594 | 21.059 | 5.37930 | 2590.10001 | .73610 | .73530 | .73570 | .73570 | .73520 | .73520 | .73520 | 502.18000 |
| .595 | 23.147 | 5.38900 | 2580.79999 | .73350 | .73260 | .73260 | .73260 | .73260 | .73130 | .73520 | 503.35000 |
| .595 | 25.192 | 5.40730 | 2581.50000 | .72890 | .72810 | .72810 | .72810 | .72810 | .72720 | .73080 | 503.37000 |
| .595 | 26.088 | 5.43040 | 2580.79999 | .71950 | .72010 | .72100 | .72100 | .71960 | .72040 | .72870 | 503.35000 |
| | GRADIENT | .00807 | .34076 | -.00022 | -.00015 | -.00019 | -.00051 | .00017 | -.00002 | .00102 | .43553 |

RUN NO. 38 / 0 RM/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | D(P5F) |
|------|----------|---------|------------|---------|---------|---------|---------|---------|--------|--------|-----------|
| .697 | .100 | 5.35310 | 2309.20001 | .67370 | .67351 | .67380 | .67380 | .67380 | .67270 | .66230 | 567.26000 |
| .698 | 2.144 | 5.33320 | 2310.70001 | .67190 | .67190 | .67220 | .67170 | .67200 | .67290 | .67140 | 568.94000 |
| .698 | 4.233 | 5.33840 | 2310.70001 | .67130 | .67120 | .67200 | .67220 | .67260 | .67280 | .67190 | 568.94000 |
| .697 | 6.329 | 5.33850 | 2310.70001 | .67030 | .67210 | .67200 | .67200 | .67180 | .67120 | .67120 | 568.40000 |
| .699 | 8.437 | 5.33730 | 2310.70001 | .67150 | .67110 | .67190 | .67190 | .67190 | .67120 | .67210 | 568.94000 |
| .595 | 10.555 | 5.39130 | 2309.89999 | .67220 | .67310 | .67290 | .67390 | .67410 | .67190 | .67340 | 566.25000 |
| .695 | 12.684 | 5.37570 | 2309.89999 | .67090 | .65940 | .65940 | .67170 | .67070 | .67330 | .67260 | 566.22000 |
| .697 | 14.798 | 5.38410 | 2332.60001 | .66640 | .66480 | .66480 | .66640 | .66510 | .65770 | .65770 | 573.45000 |
| .697 | 16.936 | 5.38490 | 2332.60001 | .66050 | .66090 | .66120 | .66210 | .65160 | .65900 | .65130 | 573.99000 |
| .697 | 19.057 | 5.39510 | 2333.29999 | .65760 | .65800 | .65800 | .65630 | .65590 | .65590 | .65560 | 573.48000 |
| .695 | 21.174 | 5.40830 | 2331.89999 | .65490 | .65420 | .65590 | .65590 | .65590 | .65740 | .65740 | 572.36000 |
| .695 | 23.264 | 5.41950 | 2332.60001 | .64780 | .64420 | .64940 | .65000 | .65210 | .65390 | .65400 | 571.84000 |
| .596 | 25.273 | 5.41950 | 2332.60001 | .62920 | .62650 | .63270 | .63270 | .63270 | .63290 | .64380 | 571.84000 |
| .595 | 26.158 | 5.46400 | 2332.60001 | .62920 | .62650 | .62570 | .62570 | .62450 | .62450 | .63440 | 571.31001 |
| | GRADIENT | .00753 | .35169 | -.00058 | -.00056 | -.00019 | -.00038 | -.00010 | .00002 | .00032 | .40225 |

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 ATIRON = .000 BOFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-87-87-094)
 ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SOL.FT. XMRP = 1076.6808 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 397 0 RRMAL = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSP) |
|------|--------|---------|------------|---------|--------|--------|--------|--------|--------|--------|-----------|
| .800 | .077 | 5.35340 | 2177.70001 | .59410 | .59430 | .59370 | .59330 | .59280 | .59320 | .59440 | 639.67000 |
| .801 | 2.151 | 5.38270 | 2177.70001 | .59330 | .59390 | .59410 | .59400 | .59350 | .59440 | .62890 | 640.64000 |
| .799 | 4.249 | 5.39300 | 2177.70001 | .59290 | .59440 | .59450 | .59490 | .58420 | .59330 | .61230 | 639.19000 |
| .799 | 6.353 | 5.40020 | 2178.39999 | .59430 | .59400 | .59370 | .59300 | .59330 | .59330 | .60440 | 638.74000 |
| .797 | 8.478 | 5.40290 | 2178.39999 | .59510 | .59440 | .59580 | .59650 | .59510 | .59430 | .60020 | 637.29000 |
| .792 | 10.608 | 5.39490 | 2179.10001 | .59310 | .59440 | .59380 | .59220 | .59290 | .59060 | .59610 | 638.78000 |
| .801 | 12.741 | 5.39810 | 2199.60001 | .59340 | .59150 | .59250 | .59030 | .59210 | .59160 | .58160 | 647.23000 |
| .798 | 14.863 | 5.40560 | 2201.05000 | .58580 | .58460 | .58520 | .58420 | .58420 | .58930 | .58830 | 644.89000 |
| .800 | 16.998 | 5.42250 | 2201.70001 | .58170 | .57820 | .57930 | .57930 | .58030 | .57940 | .58350 | 647.35000 |
| .799 | 19.138 | 5.43560 | 2201.00000 | .57020 | .57230 | .57210 | .57310 | .57650 | .57440 | .58050 | 645.85000 |
| .794 | 21.246 | 5.44370 | 2198.20001 | .57130 | .57050 | .57220 | .57340 | .57380 | .57380 | .57750 | 643.36000 |
| .796 | 23.331 | 5.44250 | 2198.89999 | .56030 | .55280 | .55110 | .55240 | .55030 | .55260 | .55960 | 644.28000 |
| .795 | 25.441 | 5.44830 | 2198.89999 | .53970 | .53790 | .53840 | .53890 | .53850 | .54060 | .55610 | 641.37000 |
| .797 | 26.266 | 5.50290 | 2198.89999 | .55790 | .53810 | .53660 | .53710 | .53540 | .53560 | .54750 | 643.31000 |
| | | .69948 | .00002 | -.00029 | .00002 | .00019 | .00038 | .00034 | .00002 | .00980 | -.11623 |

RUN NO. 487 0 RRMAL = 4.23 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSP) |
|------|--------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .851 | .077 | 5.37230 | 2167.10601 | .55310 | .55190 | .55290 | .55420 | .55400 | .55460 | .53590 | 684.02000 |
| .850 | 2.157 | 5.39410 | 2167.10001 | .55290 | .55280 | .55280 | .55380 | .55400 | .55380 | .54350 | 683.56000 |
| .850 | 4.286 | 5.40020 | 2167.10001 | .55340 | .55490 | .55630 | .55490 | .55500 | .55520 | .54860 | 683.58000 |
| .849 | 6.384 | 5.39770 | 2166.39999 | .55340 | .55410 | .55440 | .55460 | .55520 | .55460 | .55150 | 682.13000 |
| .848 | 8.502 | 5.40220 | 2167.10001 | .55450 | .55470 | .55450 | .55460 | .55380 | .55190 | .55100 | 681.72000 |
| .846 | 10.633 | 5.39660 | 2166.39999 | .55490 | .55360 | .55470 | .55300 | .55490 | .55410 | .55210 | 679.85000 |
| .845 | 12.758 | 5.40280 | 2166.39999 | .55430 | .55460 | .55460 | .55310 | .55070 | .55050 | .55250 | 678.48000 |
| .846 | 14.892 | 5.41680 | 2166.39999 | .54750 | .54750 | .54710 | .54700 | .54650 | .54910 | .54910 | 679.85000 |
| .848 | 17.029 | 5.43480 | 2167.10001 | .54150 | .54150 | .54280 | .54300 | .53950 | .54080 | .54470 | 681.16000 |
| .846 | 19.177 | 5.44930 | 2167.10001 | .53630 | .53400 | .53250 | .53140 | .53290 | .53610 | .54090 | 679.44000 |
| .848 | 21.307 | 5.45790 | 2166.39999 | .52660 | .52630 | .52560 | .52630 | .52900 | .52190 | .53360 | 681.22000 |
| .844 | 23.369 | 5.45090 | 2167.39999 | .49990 | .49990 | .50100 | .49810 | .50260 | .50120 | .51980 | 678.58000 |
| .847 | 25.400 | 5.45340 | 2167.39999 | .49040 | .49040 | .49100 | .49430 | .49400 | .49350 | .50870 | 680.86000 |
| .851 | 26.333 | 5.49520 | 2167.10001 | .48170 | .48270 | .47980 | .48210 | .48080 | .48270 | .49730 | 684.48000 |
| | | .00666 | .00000 | .00007 | .00072 | .00081 | .00017 | .00036 | .00014 | .00305 | -.10958 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PST) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| .899 | .077 | 5.36790 | 2126.10001 | .51460 | .51680 | .51460 | .51460 | .51410 | .51410 | .52350 | 712.16000 |
| .901 | 2.173 | 5.39690 | 2126.79999 | .51340 | .51280 | .51220 | .51160 | .51140 | .51140 | .51920 | 713.91000 |
| .899 | 4.282 | 5.40590 | 2126.10001 | .51840 | .51780 | .51720 | .51660 | .51640 | .51640 | .51780 | 711.73000 |
| .908 | 6.405 | 5.41170 | 2126.79999 | .51460 | .51400 | .51340 | .51280 | .51260 | .51260 | .51500 | 712.68000 |
| .908 | 8.522 | 5.41360 | 2126.10001 | .51460 | .51400 | .51340 | .51280 | .51260 | .51260 | .51540 | 710.87000 |
| .897 | 10.668 | 5.41500 | 2126.79999 | .51280 | .51220 | .51160 | .51100 | .51080 | .51080 | .51350 | 710.49000 |
| .897 | 12.791 | 5.39880 | 2126.79999 | .51100 | .51040 | .50980 | .50920 | .50900 | .50900 | .50780 | 710.49000 |
| .896 | 14.929 | 5.43810 | 2126.79999 | .50030 | .49970 | .49910 | .49850 | .49830 | .49830 | .50940 | 709.63000 |
| .899 | 17.082 | 5.44940 | 2127.50000 | .48980 | .48920 | .48860 | .48800 | .48780 | .48780 | .50450 | 712.22000 |
| .898 | 19.234 | 5.44940 | 2127.50000 | .47560 | .47500 | .47440 | .47380 | .47360 | .47360 | .48630 | 711.42000 |
| .894 | 21.349 | 5.45250 | 2126.79999 | .45700 | .45640 | .45580 | .45520 | .45500 | .45500 | .47390 | 709.19000 |
| .895 | 23.409 | 5.45240 | 2126.79999 | .44410 | .44350 | .44290 | .44230 | .44210 | .44210 | .47390 | 709.19000 |
| .896 | 25.482 | 5.44410 | 2128.20001 | .43940 | .43880 | .43820 | .43760 | .43740 | .43740 | .45920 | 710.61000 |
| .898 | 26.405 | 5.51500 | 2127.50000 | .43940 | .43880 | .43820 | .43760 | .43740 | .43740 | .44990 | 711.85000 |
| | GRADIENT | .00903 | -.00033 | .00057 | .00019 | .00057 | .00055 | .00012 | .00036 | -.00135 | -.10317 |

RUN NO. 497 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 597 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PST) |
|------|----------|---------|------------|--------|---------|---------|--------|---------|--------|--------|-----------|
| .949 | .083 | 5.36890 | 2085.70001 | .46410 | .46350 | .46290 | .46180 | .46190 | .46180 | .44060 | 736.36000 |
| .951 | 2.188 | 5.39920 | 2085.70001 | .46410 | .46350 | .46290 | .46250 | .46180 | .46180 | .45070 | 737.92000 |
| .950 | 4.307 | 5.39450 | 2085.00000 | .46410 | .46340 | .46270 | .46190 | .46150 | .46150 | .46240 | 736.68000 |
| .948 | 6.440 | 5.39850 | 2085.70001 | .47020 | .46930 | .46830 | .46710 | .46670 | .46670 | .46280 | 735.97000 |
| .948 | 8.574 | 5.41540 | 2085.70001 | .46210 | .46170 | .46130 | .46070 | .46110 | .46110 | .46070 | 735.97000 |
| .950 | 10.730 | 5.40950 | 2085.39999 | .45670 | .45640 | .45600 | .45570 | .45590 | .45590 | .46020 | 737.60000 |
| .949 | 12.862 | 5.37590 | 2085.70001 | .45560 | .45480 | .45400 | .45370 | .45370 | .45370 | .45880 | 736.36000 |
| .948 | 15.016 | 5.40030 | 2085.70001 | .44420 | .44360 | .44300 | .44240 | .44210 | .44210 | .45320 | 735.97000 |
| .948 | 17.167 | 5.41660 | 2085.00000 | .44480 | .44420 | .44360 | .44300 | .44280 | .44280 | .44630 | 735.97000 |
| .952 | 19.342 | 5.42330 | 2087.20001 | .43140 | .43080 | .43020 | .42950 | .42910 | .42910 | .44060 | 738.65000 |
| .949 | 21.456 | 5.43630 | 2086.39999 | .41690 | .41620 | .41560 | .41470 | .41470 | .41470 | .43210 | 736.82000 |
| .948 | 23.531 | 5.45090 | 2085.70001 | .39780 | .39700 | .39620 | .39570 | .39560 | .39560 | .41540 | 735.97000 |
| .951 | 25.574 | 5.45420 | 2086.60001 | .38910 | .38830 | .38750 | .38650 | .38610 | .38610 | .40390 | 739.01000 |
| .947 | 26.484 | 5.52280 | 2085.00000 | .38710 | .38640 | .38560 | .38460 | .38400 | .38400 | .39560 | 734.74000 |
| | GRADIENT | .00591 | -.16591 | .00000 | -.00021 | -.00010 | .00012 | -.00010 | .00019 | .00367 | -.07029 |

(BETR17) (02 AUG 75)

TABLULATED DATA - 0A161 (ARC 11-97-87-89+)
ARC 11-97-87-89+ 0A161 ORBITER

REFERENCE DATA

SRPREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
PRPREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RUN NO. 601 0 RNAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|---------|---------|
| .981 | .085 | 5.35640 | 2076.50000 | .42500 | .42500 | .42180 | .42400 | .42340 | .42360 | .42500 | .42500 |
| .980 | 2.188 | 5.38790 | 2075.79999 | .42570 | .42620 | .42660 | .42570 | .42460 | .42540 | .42540 | .42540 |
| .981 | 4.317 | 5.40160 | 2076.50000 | .42540 | .42590 | .42540 | .42550 | .42490 | .42430 | .42460 | .42460 |
| .979 | 6.455 | 5.39930 | 2075.79999 | .42460 | .42530 | .42540 | .42590 | .42540 | .42320 | .42430 | .42430 |
| .981 | 8.602 | 5.40130 | 2076.00000 | .42340 | .42030 | .41960 | .42290 | .41910 | .42220 | .42190 | .42220 |
| .982 | 10.755 | 5.38490 | 2076.00000 | .42030 | .42060 | .41940 | .42130 | .42250 | .42070 | .42190 | .42190 |
| .977 | 12.899 | 5.38210 | 2073.70001 | .42510 | .42780 | .42780 | .42130 | .42130 | .41930 | .42010 | .42010 |
| .977 | 15.056 | 5.39370 | 2075.10001 | .41810 | .41310 | .41120 | .41770 | .41590 | .41550 | .41750 | .41750 |
| .980 | 17.218 | 5.43530 | 2077.29999 | .40280 | .39290 | .39990 | .40160 | .40110 | .40000 | .40240 | .40240 |
| .979 | 19.381 | 5.43750 | 2076.50000 | .39520 | .39290 | .39260 | .39210 | .39280 | .39380 | .39620 | .39620 |
| .973 | 21.523 | 5.44630 | 2076.50000 | .38700 | .38850 | .38950 | .38940 | .38960 | .39020 | .39500 | .39500 |
| .980 | 23.694 | 5.44600 | 2077.29999 | .37110 | .37230 | .37220 | .37220 | .37230 | .37120 | .37630 | .37630 |
| .980 | 25.890 | 5.46650 | 2076.50000 | .36120 | .36020 | .35960 | .36450 | .36950 | .36490 | .37210 | .37210 |
| .977 | 26.559 | 5.50280 | 2075.79999 | .36830 | .36820 | .36530 | .36780 | .36680 | .36520 | .37210 | .37210 |
| | GRADIENT | .07067 | .00067 | .00009 | .00009 | .00085 | .00035 | .00035 | .00817 | -.00010 | -.00010 |

RUN NO. 697 0 RNAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | PT8/PT |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.050 | .095 | 5.38510 | 2040.50000 | .35990 | .36100 | .36200 | .36160 | .36160 | .36160 | .36160 | .36160 |
| 1.052 | 2.205 | 5.41300 | 2042.60001 | .35830 | .35930 | .36000 | .35870 | .35770 | .35840 | .35160 | .35160 |
| 1.050 | 4.330 | 5.39760 | 2040.50000 | .35880 | .35880 | .35800 | .35830 | .35860 | .35940 | .35490 | .35490 |
| 1.048 | 6.470 | 5.40530 | 2039.80000 | .36030 | .35860 | .36000 | .35740 | .35740 | .35900 | .35690 | .35690 |
| 1.052 | 8.620 | 5.40920 | 2044.00000 | .35200 | .35160 | .35110 | .35110 | .35100 | .35200 | .35400 | .35400 |
| 1.050 | 10.785 | 5.38700 | 2032.00000 | .35190 | .35090 | .35260 | .34960 | .34960 | .35060 | .35350 | .35350 |
| 1.048 | 12.932 | 5.38520 | 2028.50000 | .34970 | .34970 | .35060 | .35040 | .34980 | .34980 | .35220 | .35220 |
| 1.050 | 15.093 | 5.40420 | 2031.30000 | .34500 | .34620 | .34780 | .34770 | .34550 | .34650 | .34920 | .34920 |
| 1.048 | 17.252 | 5.43850 | 2029.20000 | .34680 | .34610 | .34610 | .34480 | .34330 | .34370 | .34680 | .34680 |
| 1.049 | 19.426 | 5.45040 | 2028.50000 | .33440 | .33380 | .33450 | .33450 | .33400 | .33580 | .34220 | .34220 |
| 1.051 | 21.574 | 5.45610 | 2032.00000 | .32900 | .32970 | .32960 | .32960 | .32880 | .32900 | .33580 | .33580 |
| 1.048 | 23.729 | 5.47480 | 2030.60001 | .32300 | .32420 | .32310 | .32160 | .32040 | .31960 | .32680 | .32680 |
| 1.050 | 25.729 | 5.47156 | 2033.39999 | .30840 | .30840 | .30670 | .30670 | .30850 | .30980 | .32070 | .32070 |
| 1.048 | 29.650 | 5.53270 | 2030.60001 | .30460 | .30950 | .31060 | .30940 | .31100 | .31080 | .31670 | .31670 |
| | GRADIENT | .00294 | -.00116 | -.00026 | -.00092 | -.00071 | -.00078 | -.00071 | -.00035 | -.00187 | -.00187 |

(BETR17) (02 AUG 76)

TABULATED DATA - 0A16A (ARC 11-97-87-084)
ARC 11-97-87-084 0A16I ORBITER

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.8800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 938.6800 IN. ZMRP = 375.0800 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AHLRON = .000 BDFLAP = -7.170

RUN NO. 70/ 0. RNAL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|---------|------------|---------|---------|---------|---------|--------|--------|---------|-----------|
| 1.100 | .086 | 5.35820 | 015.0000 | .33140 | .33060 | .32980 | .32900 | .33000 | .33060 | .33600 | 799.25000 |
| 1.100 | 2.195 | 5.39310 | 2013.60001 | .33060 | .32980 | .32900 | .32820 | .33000 | .32960 | .33370 | 798.99000 |
| 1.089 | 4.329 | 5.39820 | 2013.60001 | .32990 | .32910 | .32830 | .32750 | .33020 | .32980 | .33230 | 798.16000 |
| 1.039 | 6.470 | 5.39850 | 2015.70000 | .32780 | .32700 | .32620 | .32540 | .32730 | .32700 | .33000 | 799.11000 |
| 1.098 | 8.622 | 5.40440 | 2015.00000 | .32490 | .32410 | .32330 | .32250 | .32440 | .32410 | .32760 | 798.98000 |
| 1.098 | 10.790 | 5.38210 | 2015.70000 | .32450 | .32370 | .32290 | .32210 | .32400 | .32370 | .32540 | 798.63000 |
| 1.089 | 12.940 | 5.38490 | 2016.39999 | .32450 | .32370 | .32290 | .32210 | .32400 | .32370 | .32540 | 799.52000 |
| 1.100 | 15.103 | 5.40530 | 2015.00000 | .32580 | .32500 | .32420 | .32340 | .32530 | .32500 | .32570 | 799.29000 |
| 1.098 | 17.264 | 5.44490 | 2014.30000 | .32760 | .32680 | .32600 | .32520 | .32710 | .32680 | .32750 | 798.02000 |
| 1.089 | 19.442 | 5.45590 | 2017.10001 | .31590 | .31510 | .31430 | .31350 | .31600 | .31570 | .32090 | 799.65000 |
| 1.097 | 21.576 | 5.46320 | 2015.00000 | .30940 | .30860 | .30780 | .30700 | .30930 | .30900 | .31560 | 798.15000 |
| 1.036 | 23.579 | 5.47550 | 2017.10001 | .30750 | .30670 | .30590 | .30510 | .30760 | .30730 | .30940 | 799.65000 |
| 1.101 | 25.755 | 5.48800 | 2017.10001 | .29220 | .29140 | .29060 | .28980 | .29250 | .29220 | .30440 | 800.48000 |
| 1.098 | 26.713 | 5.46910 | 2012.89999 | .29220 | .29140 | .29060 | .28980 | .29300 | .29270 | .29440 | 797.79000 |
| | GRADIENT | .01130 | .32937 | -.00035 | -.00012 | -.00024 | -.00062 | .00005 | .00005 | -.00087 | -.25717 |

RUN NO. 79/ 0

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|---------|------------|---------|---------|--------|--------|--------|--------|---------|-----------|
| 1.149 | .086 | 5.37980 | 2013.60001 | .30730 | .30650 | .30570 | .30490 | .30500 | .30500 | .45270 | 819.47000 |
| 1.149 | 2.192 | 5.39900 | 2013.60001 | .30830 | .30750 | .30670 | .30590 | .30800 | .30800 | .39140 | 819.70000 |
| 1.148 | 4.314 | 5.41620 | 2013.60001 | .30710 | .30630 | .30550 | .30470 | .30730 | .30730 | .35560 | 819.23000 |
| 1.147 | 6.458 | 5.40810 | 2013.60001 | .30790 | .30710 | .30630 | .30550 | .30550 | .30570 | .33510 | 818.75000 |
| 1.147 | 8.620 | 5.41600 | 2013.60001 | .30730 | .30650 | .30570 | .30490 | .30380 | .30300 | .33230 | 818.92000 |
| 1.143 | 10.792 | 5.39460 | 2013.60001 | .30400 | .30320 | .30240 | .30160 | .30190 | .30190 | .31490 | 817.32000 |
| 1.145 | 12.940 | 5.39340 | 2015.70000 | .30110 | .30030 | .29950 | .29870 | .29820 | .29800 | .30800 | 818.74000 |
| 1.142 | 15.103 | 5.41930 | 2013.60001 | .30080 | .29990 | .29910 | .29830 | .29860 | .29800 | .30470 | 816.83000 |
| 1.148 | 17.263 | 5.44340 | 2014.30000 | .29970 | .29880 | .29800 | .29720 | .29970 | .29920 | .30200 | 819.39000 |
| 1.141 | 19.440 | 5.45920 | 2015.00000 | .29540 | .29460 | .29380 | .29300 | .29560 | .29580 | .29940 | 817.14000 |
| 1.142 | 21.581 | 5.46790 | 2017.80000 | .28760 | .28680 | .28600 | .28520 | .28860 | .28900 | .29450 | 818.11000 |
| 1.141 | 23.683 | 5.47020 | 2010.80000 | .28590 | .28510 | .28430 | .28350 | .28530 | .28530 | .29190 | 819.25000 |
| 1.149 | 25.776 | 5.49760 | 2015.00000 | .27710 | .27630 | .27550 | .27470 | .27540 | .27600 | .28540 | 820.29000 |
| 1.144 | 26.789 | 5.49670 | 2010.80000 | .27720 | .27640 | .27560 | .27480 | .27760 | .27780 | .28230 | 816.46000 |
| | GRADIENT | .00880 | .00000 | -.00005 | -.00033 | .00024 | .00010 | .00054 | .00028 | -.02297 | -.05703 |

TABULATED DATA - OA161 (ARC 11-97-87-09#)

(BETA17) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.8800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 804 0 RNWL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|---------|------------|--------|---------|---------|---------|---------|---------|---------|-----------|
| 1.198 | .084 | 5.39570 | 2010.10001 | .28198 | .28198 | .28580 | .29120 | .29220 | .29230 | .30290 | 834.92000 |
| 1.199 | 2.183 | 5.40760 | 2003.70000 | .28070 | .28170 | .28250 | .28110 | .28090 | .28140 | .28590 | 832.72000 |
| 1.197 | 4.303 | 5.41060 | 2005.10001 | .28200 | .28150 | .28030 | .28020 | .28090 | .28060 | .28390 | 832.49000 |
| 1.196 | 6.449 | 5.40840 | 2011.50000 | .28020 | .27910 | .27950 | .28020 | .28000 | .28080 | .28230 | 834.88000 |
| 1.195 | 8.608 | 5.41640 | 2005.80000 | .27620 | .27610 | .27530 | .27640 | .27590 | .27610 | .27990 | 832.27000 |
| 1.192 | 10.785 | 5.39000 | 2004.39999 | .27540 | .27410 | .27370 | .27420 | .27380 | .27350 | .27720 | 831.12000 |
| 1.193 | 12.934 | 5.40450 | 2010.80000 | .27290 | .27340 | .27380 | .27320 | .27280 | .27290 | .27540 | 833.71000 |
| 1.197 | 15.094 | 5.41820 | 2009.39999 | .27280 | .27250 | .27250 | .27250 | .27320 | .27210 | .27520 | 834.35000 |
| 1.196 | 17.251 | 5.44530 | 2005.10001 | .26830 | .26810 | .26850 | .26770 | .26870 | .26870 | .27290 | 832.10000 |
| 1.190 | 19.423 | 5.46050 | 2006.50000 | .26750 | .26930 | .27050 | .26550 | .26770 | .26730 | .26990 | 831.04000 |
| 1.192 | 21.585 | 5.46340 | 2012.20000 | .26600 | .26600 | .26600 | .26500 | .26400 | .26410 | .26550 | 833.86000 |
| 1.190 | 23.867 | 5.46700 | 2008.60001 | .26180 | .26260 | .26240 | .26110 | .26070 | .25980 | .26470 | 831.26000 |
| 1.191 | 25.763 | 5.48790 | 2010.10001 | .25740 | .25790 | .25740 | .25710 | .25800 | .25820 | .26200 | 832.72000 |
| 1.191 | 26.783 | 5.49270 | 2008.60001 | .25340 | .25450 | .25460 | .25590 | .25470 | .25450 | .25890 | 833.78000 |
| 1.196 | GRADIENT | .00353 | -1.18205 | .00012 | -.00009 | -.00130 | -.00260 | -.00296 | -.00275 | -.00450 | -.57515 |

RUN NO. 89/ 0 RNWL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|---------|------------|---------|---------|---------|---------|--------|---------|--------|-----------|
| 1.294 | .072 | 5.39690 | 2004.39999 | .23190 | .23170 | .23220 | .23180 | .23200 | .23190 | .22650 | 854.83000 |
| 1.298 | 2.154 | 5.41390 | 2005.80000 | .23100 | .23140 | .23110 | .23080 | .23020 | .23050 | .22850 | 856.70000 |
| 1.299 | 4.284 | 5.42600 | 2003.70000 | .23070 | .23060 | .23100 | .23160 | .23220 | .23100 | .22950 | 855.30000 |
| 1.297 | 6.428 | 5.42450 | 2004.39999 | .23150 | .23100 | .23100 | .23090 | .23030 | .23100 | .22970 | 855.41000 |
| 1.293 | 8.577 | 5.43780 | 2003.70000 | .22890 | .22880 | .22940 | .22920 | .22890 | .22880 | .22950 | 854.72000 |
| 1.293 | 10.749 | 5.39900 | 2004.39999 | .22850 | .22770 | .22720 | .22740 | .22730 | .22650 | .22820 | 854.72000 |
| 1.294 | 12.894 | 5.40740 | 2004.39999 | .22710 | .22780 | .22780 | .22700 | .22730 | .22740 | .22820 | 855.06000 |
| 1.294 | 15.053 | 5.42930 | 2004.39999 | .22710 | .22550 | .22570 | .22560 | .22560 | .22490 | .22680 | 854.83000 |
| 1.293 | 17.213 | 5.44970 | 2004.39999 | .22390 | .22400 | .22400 | .22310 | .22320 | .22370 | .22550 | 854.72000 |
| 1.288 | 19.390 | 5.46280 | 2004.39999 | .22190 | .22310 | .22360 | .22360 | .22390 | .2270 | .22450 | 854.49000 |
| 1.288 | 21.524 | 5.48090 | 2005.10001 | .22460 | .22350 | .22390 | .22470 | .22450 | .22440 | .22450 | 854.25000 |
| 1.292 | 23.632 | 5.47100 | 2005.80000 | .21790 | .21320 | .21330 | .21720 | .21610 | .21720 | .22110 | 855.06000 |
| 1.289 | 25.737 | 5.48850 | 2006.50000 | .21470 | .21320 | .21330 | .21290 | .21250 | .21170 | .21710 | 854.70000 |
| 1.289 | 26.756 | 5.51300 | 2005.10001 | .21020 | .21090 | .21010 | .21010 | .21030 | .21150 | .21460 | 855.52000 |
| 1.296 | GRADIENT | .00710 | -.16805 | -.00028 | -.00026 | -.00028 | -.00005 | .00005 | -.00021 | .00074 | -.11051 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER

(BETR17) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 ALFRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RUN NO. 904 0 RN/L 4.22 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.399 | .056 | 5.38660 | 2030.60001 | .19190 | .19270 | .19260 | .19240 | .19260 | .19260 | .19260 | 875.45000 |
| 1.403 | 2.138 | 5.42510 | 2029.89999 | .19330 | .19370 | .19320 | .19270 | .19300 | .19300 | .19300 | 875.45000 |
| 1.399 | 4.258 | 5.42150 | 2030.60001 | .19370 | .19370 | .19390 | .19350 | .19340 | .19340 | .19340 | 875.45000 |
| 1.399 | 6.394 | 5.44810 | 2030.60001 | .19310 | .19370 | .19370 | .19370 | .19390 | .19390 | .19390 | 875.45000 |
| 1.387 | 8.538 | 5.43840 | 2030.60001 | .19220 | .19250 | .19210 | .19230 | .19210 | .19210 | .19210 | 875.45000 |
| 1.384 | 10.705 | 5.41280 | 2030.60001 | .19190 | .19230 | .19230 | .19230 | .19220 | .19240 | .19240 | 875.45000 |
| 1.397 | 12.846 | 5.39900 | 2031.30000 | .19250 | .19230 | .19260 | .19250 | .19260 | .19260 | .19260 | 875.45000 |
| 1.394 | 15.003 | 5.41560 | 2031.30000 | .19190 | .19110 | .19120 | .19110 | .19090 | .19060 | .19060 | 875.45000 |
| 1.396 | 17.160 | 5.44840 | 2030.60001 | .18780 | .18780 | .18780 | .18850 | .18850 | .18820 | .18820 | 875.45000 |
| 1.395 | 19.330 | 5.45930 | 2030.60001 | .19020 | .19000 | .18970 | .19000 | .19000 | .18990 | .18990 | 875.45000 |
| 1.398 | 21.470 | 5.47640 | 2032.00000 | .18830 | .18660 | .18660 | .18660 | .18680 | .18660 | .18660 | 875.45000 |
| 1.399 | 23.585 | 5.47010 | 2032.70000 | .18000 | .18220 | .17980 | .18040 | .18040 | .17990 | .17990 | 875.45000 |
| 1.397 | 25.688 | 5.51200 | 2033.39999 | .17860 | .17950 | .17990 | .17950 | .17900 | .17990 | .17990 | 875.45000 |
| 1.399 | 26.722 | 5.51260 | 2032.70000 | .17620 | .17640 | .17710 | .17650 | .17680 | .17580 | .17580 | 875.45000 |
| | GRADIENT | .00830 | .00094 | .00043 | .00021 | .00031 | .00065 | .00019 | .00026 | .00023 | .00032 |

RUN NO. 3254 0 RN/L 3.03 GRADIENT INTERVAL = -5.084 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.556 | .073 | 4.56680 | 1544.00000 | .14130 | .14130 | .14130 | .14130 | .14130 | .14130 | .14130 | 656.91000 |
| 1.556 | 2.066 | 4.58280 | 1544.00000 | .14230 | .14210 | .14190 | .14210 | .14150 | .14190 | .14160 | 656.91000 |
| 1.555 | 4.135 | 4.56150 | 1542.60001 | .14210 | .14260 | .14260 | .14260 | .14270 | .14220 | .14200 | 656.91000 |
| 1.556 | 6.173 | 4.56670 | 1541.60000 | .14230 | .14190 | .14170 | .14140 | .14130 | .14170 | .14150 | 656.91000 |
| 1.556 | 8.241 | 4.55480 | 1541.10001 | .14050 | .13998 | .14030 | .14030 | .14030 | .14030 | .13990 | 656.91000 |
| 1.555 | 10.305 | 4.56330 | 1541.80000 | .14370 | .14373 | .14350 | .14380 | .14330 | .14350 | .14350 | 656.91000 |
| 1.556 | 12.346 | 4.55930 | 1541.80000 | .13880 | .13861 | .13910 | .13900 | .13950 | .13870 | .13800 | 656.91000 |
| 1.556 | 14.426 | 4.57500 | 1542.60001 | .13580 | .13553 | .13600 | .13570 | .13600 | .13600 | .13470 | 656.91000 |
| 1.555 | 16.567 | 4.57740 | 1544.00000 | .13510 | .13513 | .13480 | .13510 | .13470 | .13480 | .13470 | 656.91000 |
| 1.556 | 18.663 | 4.58160 | 1543.30000 | .13310 | .13310 | .13300 | .13290 | .13300 | .13290 | .13310 | 656.91000 |
| 1.556 | 20.692 | 4.58980 | 1543.30000 | .12940 | .12920 | .12920 | .12940 | .12940 | .12910 | .12920 | 656.91000 |
| 1.556 | 22.777 | 4.59530 | 1544.00000 | .12500 | .12500 | .12490 | .12490 | .12530 | .12570 | .12520 | 656.91000 |
| 1.556 | 24.807 | 4.59960 | 1543.30000 | .11820 | .11820 | .11790 | .11770 | .11820 | .11780 | .11820 | 656.91000 |
| 1.556 | 23.863 | 4.60200 | 1542.60001 | .11720 | .11730 | .11700 | .11700 | .11700 | .11740 | .11730 | 656.91000 |
| | GRADIENT | -.00135 | -.34572 | .06020 | .00032 | .00032 | .00012 | .00035 | .00022 | .00017 | -.14860 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 3264 0

GRADIENT INTERVAL = -9.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1/PSF1 |
|-------|--------|---------|------------|---------|---------|--------|---------|--------|---------|--------|-----------|
| 1.750 | -0.838 | 4.74660 | 1651.50000 | .09890 | .09910 | .09890 | .09920 | .09890 | .09890 | .09840 | 664.85900 |
| 1.750 | 1.946 | 4.75010 | 1653.60001 | .09890 | .09870 | .09840 | .09870 | .09850 | .09870 | .09820 | 665.71000 |
| 1.750 | 3.984 | 4.75090 | 1652.20000 | .09860 | .09860 | .09890 | .09900 | .09890 | .09880 | .09870 | 655.14000 |
| 1.750 | 6.031 | 4.74960 | 1649.59339 | .09880 | .09870 | .09870 | .09910 | .09870 | .09890 | .09880 | 654.09000 |
| 1.750 | 8.095 | 4.74820 | 1647.82333 | .09910 | .09870 | .09860 | .09910 | .09890 | .09870 | .09860 | 663.43000 |
| 1.750 | 10.151 | 4.74790 | 1648.60001 | .09910 | .09870 | .09870 | .09910 | .09890 | .09860 | .09860 | 663.71000 |
| 1.750 | 12.191 | 4.75020 | 1648.60001 | .09710 | .09720 | .09428 | .09400 | .09420 | .09420 | .09420 | 664.00000 |
| 1.750 | 14.267 | 4.75770 | 1649.39999 | .09380 | .09400 | .09240 | .09240 | .09240 | .09250 | .09250 | 664.57000 |
| 1.750 | 16.405 | 4.76170 | 1650.80001 | .09230 | .09290 | .09240 | .09240 | .09240 | .09250 | .09250 | 664.14000 |
| 1.750 | 20.520 | 4.77240 | 1652.20000 | .08960 | .08960 | .08960 | .08960 | .08960 | .08960 | .08940 | 664.86000 |
| 1.750 | 28.595 | 4.77730 | 1651.50000 | .08610 | .08610 | .08610 | .08700 | .08610 | .08690 | .08690 | 664.86000 |
| 1.750 | 24.684 | 4.78130 | 1652.20000 | .08330 | .08330 | .08330 | .08300 | .08330 | .08290 | .08310 | 663.14000 |
| 1.750 | 25.673 | 4.78400 | 1650.10001 | .07990 | .07990 | .07970 | .07950 | .07990 | .07970 | .07980 | 664.29000 |
| | | .00187 | .17518 | -.00007 | -.00002 | .00000 | -.00005 | .00003 | -.00002 | .00008 | .07052 |

RUN NO. 3354 0

GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1/PSF1 |
|-------|--------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.997 | .010 | 4.41310 | 1816.30000 | .05900 | .05850 | .05880 | .05890 | .05850 | .05900 | .05850 | 651.15000 |
| 1.997 | 2.040 | 4.41120 | 1815.60001 | .05580 | .05600 | .05600 | .05700 | .05690 | .05710 | .05710 | 650.90000 |
| 1.997 | 6.158 | 4.41040 | 1816.30000 | .05800 | .05800 | .05860 | .05750 | .05750 | .05750 | .05730 | 651.75000 |
| 1.997 | 8.232 | 4.41140 | 1815.30000 | .05740 | .05710 | .05720 | .05710 | .05710 | .05750 | .05710 | 651.15000 |
| 1.997 | 10.292 | 4.41040 | 1815.60001 | .05550 | .05960 | .05670 | .05540 | .05540 | .05560 | .05560 | 650.90000 |
| 1.997 | 12.323 | 4.41430 | 1815.60001 | .05300 | .05340 | .05290 | .05330 | .05320 | .05330 | .05330 | 650.90000 |
| 1.997 | 14.398 | 4.41570 | 1816.30000 | .05310 | .05320 | .05290 | .05310 | .05290 | .05290 | .05290 | 651.75000 |
| 1.997 | 16.437 | 4.41790 | 1816.30000 | .05200 | .05210 | .05230 | .05240 | .05240 | .05180 | .05180 | 651.15000 |
| 1.997 | 20.645 | 4.42760 | 1815.60001 | .04950 | .04940 | .04930 | .04970 | .04980 | .04950 | .04950 | 650.90000 |
| 1.997 | 22.718 | 4.43420 | 1815.60001 | .04740 | .04770 | .04740 | .04740 | .04780 | .04780 | .04780 | 651.75000 |
| 1.997 | 24.786 | 4.43370 | 1816.30000 | .04540 | .04550 | .04530 | .04550 | .04510 | .04520 | .04520 | 651.75000 |
| | | -.00094 | -.34492 | -.00108 | -.00079 | -.00094 | -.00094 | -.00079 | -.00094 | -.00069 | -.12319 |

GRADIENT

TABULATED DATA - ORBIT (ARC 11-97-87-09*)
ARC 11-97-87-09* 04161 ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0006 IN. Y0
BREF = 956.6800 IN. ZMRP = 375.0800 IN. Z0
SCALE = .0300

BETA = 5.000 ELEVON = .000
AIRLON = -7.170

PARAMETRIC DATA

RUN NO. 3454 0 RNAL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.249 | 1.086 | 4.11650 | 2061.70001 | .03740 | .03710 | .03710 | .03710 | .03720 | .03750 | .03730 | 632.20000 |
| 2.249 | 1.880 | 4.11426 | 2056.20001 | .03640 | .03580 | .03660 | .03650 | .03630 | .03630 | .03610 | 633.29000 |
| 2.249 | 3.931 | 4.11250 | 2070.89999 | .03540 | .03570 | .03540 | .03570 | .03570 | .03550 | .03550 | 635.02000 |
| 2.249 | 5.987 | 4.11170 | 2070.20001 | .03640 | .03550 | .03610 | .03620 | .03620 | .03640 | .03640 | 634.80000 |
| 2.249 | 10.020 | 4.11160 | 2070.20001 | .03330 | .03290 | .03300 | .03310 | .03300 | .03290 | .03340 | 635.80000 |
| 2.249 | 12.125 | 4.11300 | 2070.89999 | .03180 | .03170 | .03180 | .03190 | .03180 | .03180 | .03190 | 635.02000 |
| 2.249 | 14.203 | 4.11280 | 2070.20001 | .03050 | .03020 | .03020 | .03020 | .03020 | .03020 | .03030 | 634.80000 |
| 2.249 | 16.334 | 4.11570 | 2070.89999 | .03070 | .03080 | .03080 | .03080 | .03080 | .03070 | .03080 | 635.02000 |
| 2.249 | 18.407 | 4.12000 | 2071.60001 | .03050 | .03050 | .03050 | .03050 | .03050 | .03060 | .03060 | 634.24000 |
| 2.249 | 20.428 | 4.12580 | 2070.89999 | .02880 | .02890 | .02880 | .02910 | .02910 | .02920 | .02920 | 635.02000 |
| 2.249 | 22.498 | 4.12560 | 2070.89999 | .02800 | .02970 | .02980 | .02940 | .02940 | .02910 | .02930 | 635.02000 |
| 2.249 | 24.551 | 4.13110 | 2070.89999 | .02800 | .02900 | .02900 | .02930 | .02940 | .02910 | .02910 | 633.02000 |
| 2.249 | 25.571 | 4.13380 | 2070.89999 | .02869 | .02810 | .02830 | .02850 | .02850 | .02840 | .02840 | 635.02000 |
| | | -.00097 | 2.28759 | -.00050 | -.00035 | -.00042 | -.00035 | -.00037 | -.00050 | -.00045 | .70115 |

GRADIENT

RUN NO. 428/ 0 RNAL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.499 | 1.106 | 5.118470 | 1471.80000 | .03100 | .03100 | .03090 | .03090 | .03080 | .03090 | .03060 | 377.25000 |
| 2.499 | 2.137 | 5.115770 | 1473.20000 | .03030 | .03020 | .03010 | .02990 | .02990 | .02990 | .03070 | 377.62000 |
| 2.499 | 4.180 | 5.113650 | 1472.50000 | .02910 | .02900 | .02870 | .02900 | .02910 | .02900 | .02900 | 377.43000 |
| 2.499 | 6.275 | 5.11680 | 1472.50000 | .02930 | .02920 | .02910 | .02910 | .02930 | .02920 | .02910 | 377.43000 |
| 2.499 | 8.280 | 5.10230 | 1473.20000 | .02850 | .02850 | .02860 | .02860 | .02860 | .02850 | .02820 | 377.62000 |
| 2.499 | 10.299 | 5.09320 | 1473.20000 | .02690 | .02670 | .02680 | .02690 | .02690 | .02690 | .02690 | 377.62000 |
| 2.499 | 12.350 | 5.08760 | 1473.20000 | .02540 | .02540 | .02530 | .02540 | .02540 | .02540 | .02570 | 377.62000 |
| 2.499 | 14.386 | 5.08510 | 1473.20000 | .02570 | .02570 | .02560 | .02540 | .02540 | .02530 | .02530 | 377.62000 |
| 2.499 | 16.431 | 5.09630 | 1473.20000 | .02420 | .02400 | .02400 | .02400 | .02410 | .02410 | .02420 | 377.62000 |
| 2.499 | 18.469 | 5.09360 | 1473.20000 | .02340 | .02340 | .02340 | .02340 | .02340 | .02340 | .02420 | 377.62000 |
| 2.499 | 20.508 | 5.10370 | 1473.20000 | .02350 | .02330 | .02330 | .02340 | .02350 | .02350 | .02350 | 377.62000 |
| 2.499 | 22.558 | 5.11660 | 1473.20000 | .02350 | .02350 | .02350 | .02340 | .02350 | .02350 | .02350 | 377.62000 |
| 2.499 | 24.603 | 5.13520 | 1473.20000 | .02370 | .02360 | .02370 | .02370 | .02370 | .02370 | .02370 | 377.62000 |
| 2.499 | 25.622 | 5.14500 | 1473.20000 | .02410 | .02390 | .02390 | .02390 | .02380 | .02370 | .02370 | 377.62000 |
| | | -.01189 | 1.7127 | -.00047 | -.00049 | -.00054 | -.00047 | -.00044 | -.00047 | -.00039 | .34404 |

GRADIENT

TABULATED DATA - 0A161 (ARC 11-97-87-09#)
ARC 11-97-87-09# 0A161 ORBITER

PARAMETRIC DATA
BETA = 5.000 ELEVON = .000
AILERON = .000 BOFLAP = -7.170

REFERENCE DATA
SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0800 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 01P5F1 |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 3.499 | 1.103 | 5.34720 | 1971.20000 | .01380 | .01370 | .01360 | .01360 | .01370 | .01350 | .01360 | 327.08000 |
| 3.499 | 2.135 | 5.32450 | 1971.20000 | .01320 | .01310 | .01300 | .01310 | .01320 | .01310 | .01310 | 327.08000 |
| 3.499 | 4.199 | 5.29880 | 1971.20000 | .01310 | .01300 | .01280 | .01270 | .01280 | .01270 | .01280 | 327.08000 |
| 3.499 | 6.167 | 5.28020 | 1971.89999 | .01280 | .01260 | .01260 | .01270 | .01260 | .01260 | .01270 | 327.20000 |
| 3.499 | 8.229 | 5.26440 | 1971.20000 | .01240 | .01230 | .01230 | .01230 | .01240 | .01230 | .01240 | 327.08000 |
| 3.499 | 10.258 | 5.25670 | 1971.20000 | .01150 | .01140 | .01130 | .01140 | .01150 | .01150 | .01150 | 327.08000 |
| 3.499 | 12.298 | 5.24790 | 1971.20000 | .01150 | .01140 | .01140 | .01130 | .01120 | .01120 | .01120 | 327.08000 |
| 3.499 | 14.329 | 5.24680 | 1971.20000 | .01090 | .01080 | .01070 | .01070 | .01070 | .01070 | .01070 | 327.08000 |
| 3.499 | 16.362 | 5.25010 | 1971.20000 | .01080 | .01080 | .01070 | .01070 | .01060 | .01060 | .01060 | 327.08000 |
| 3.499 | 18.393 | 5.25370 | 1971.20000 | .01030 | .01020 | .00990 | .00990 | .00990 | .00990 | .00990 | 327.08000 |
| 3.499 | 20.423 | 5.26360 | 1971.20000 | .00990 | .00980 | .00990 | .00990 | .00990 | .00990 | .00990 | 327.08000 |
| 3.499 | 22.455 | 5.27650 | 1971.20000 | .01010 | .01010 | .01010 | .01020 | .01020 | .01010 | .00990 | 327.08000 |
| 3.499 | 24.498 | 5.29440 | 1971.20000 | .01010 | .00990 | .00990 | .00990 | .00990 | .00990 | .00990 | 327.08000 |
| 3.499 | 25.517 | 5.30360 | 1971.20000 | .01020 | .01000 | .00990 | .00930 | .00930 | .01000 | .01000 | 327.08000 |
| | GRADIENT | -.01193 | .00000 | -.00017 | -.00017 | -.00020 | -.00022 | -.00022 | -.00022 | -.00020 | -.00000 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 01P5F1 |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 3.499 | 1.182 | 5.47470 | 2682.00000 | .00770 | .00760 | .00760 | .00760 | .00770 | .00770 | .00770 | 301.84000 |
| 3.499 | 1.836 | 5.45060 | 2682.00000 | .00740 | .00740 | .00730 | .00730 | .00730 | .00730 | .00730 | 302.08000 |
| 3.499 | 3.868 | 5.42680 | 2682.00000 | .00720 | .00710 | .00700 | .00690 | .00700 | .00700 | .00710 | 301.84000 |
| 3.499 | 5.892 | 5.40760 | 2682.70001 | .00710 | .00700 | .00700 | .00700 | .00700 | .00690 | .00680 | 301.84000 |
| 3.499 | 7.919 | 5.39100 | 2684.10001 | .00670 | .00650 | .00650 | .00670 | .00670 | .00670 | .00680 | 302.08000 |
| 3.499 | 11.936 | 5.37660 | 2683.39999 | .00620 | .00620 | .00620 | .00620 | .00620 | .00620 | .00620 | 302.08000 |
| 3.499 | 14.004 | 5.37600 | 2683.39999 | .00610 | .00600 | .00600 | .00600 | .00600 | .00600 | .00600 | 302.08000 |
| 3.499 | 16.042 | 5.37580 | 2682.70001 | .00590 | .00570 | .00570 | .00570 | .00570 | .00570 | .00570 | 301.96000 |
| 3.499 | 18.068 | 5.38310 | 2683.39999 | .00570 | .00560 | .00560 | .00560 | .00560 | .00560 | .00560 | 302.00000 |
| 3.499 | 20.102 | 5.39120 | 2682.00000 | .00580 | .00580 | .00580 | .00570 | .00570 | .00560 | .00550 | 304.84000 |
| 3.499 | 22.139 | 5.40650 | 2683.39999 | .00600 | .00600 | .00590 | .00590 | .00580 | .00580 | .00580 | 302.08000 |
| 3.499 | 24.165 | 5.42170 | 2681.29999 | .00600 | .00580 | .00580 | .00570 | .00560 | .00560 | .00560 | 301.76000 |
| 3.499 | 25.182 | 5.43390 | 2684.10001 | .00570 | .00570 | .00570 | .00560 | .00560 | .00560 | .00560 | 302.08000 |
| | GRADIENT | -.01180 | -.00123 | -.00012 | -.00012 | -.00015 | -.00017 | -.00017 | -.00017 | -.00015 | -.00014 |

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TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

(BETRM) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
ALLRON = 2.500 BRFLAP = -7.170

REFERENCE DATA

SPEE = 2580.0000 90.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN# NO. 160/ 0 RWL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1P5F1 |
|----------|--------|----------|------------|---------|---------|---------|--------|--------|---------|--------|-----------|
| .597 | .137 | -4.92820 | 2617.60001 | .75020 | .74950 | .75000 | .74950 | .75000 | .74950 | .73730 | 513.35000 |
| .597 | 2.147 | -4.93780 | 2617.60001 | .74960 | .74960 | .74960 | .75000 | .74960 | .74960 | .74330 | 513.35000 |
| .598 | 4.194 | -4.93470 | 2617.60001 | .74960 | .74970 | .74960 | .74970 | .75000 | .74960 | .74620 | 513.94000 |
| .597 | 6.270 | -4.92960 | 2618.29999 | .74960 | .74970 | .74960 | .74830 | .74820 | .74930 | .74720 | 513.95000 |
| .597 | 8.363 | -4.91650 | 2618.29999 | .74960 | .74960 | .74960 | .74850 | .74950 | .75000 | .74870 | 513.37000 |
| .597 | 10.474 | -4.90530 | 2619.00000 | .74960 | .74960 | .74960 | .74960 | .75000 | .75000 | .74910 | 513.56000 |
| .597 | 12.595 | -4.87930 | 2619.00000 | .75000 | .75000 | .74960 | .74960 | .74960 | .74950 | .74950 | 513.96000 |
| .597 | 14.691 | -4.87670 | 2619.00000 | .74750 | .74680 | .74680 | .74730 | .74680 | .74720 | .74820 | 513.96000 |
| .597 | 16.791 | -4.87670 | 2619.00000 | .74470 | .74530 | .74490 | .74490 | .74490 | .74430 | .74600 | 513.96000 |
| .597 | 18.949 | -4.90030 | 2619.00000 | .74330 | .74280 | .74270 | .74250 | .74210 | .74300 | .74500 | 513.36000 |
| .597 | 21.013 | -4.90120 | 2619.00000 | .73950 | .73890 | .74000 | .73960 | .74000 | .73990 | .74300 | 513.36000 |
| .597 | 23.117 | -4.89340 | 2619.00000 | .73520 | .73610 | .73610 | .73610 | .73770 | .73690 | .74030 | 513.36000 |
| .597 | 25.206 | -4.88300 | 2619.70001 | .73260 | .73260 | .73260 | .73150 | .73120 | .73240 | .73740 | 513.40000 |
| .599 | 26.236 | -4.87030 | 2619.70001 | .72510 | .72360 | .72450 | .72420 | .72450 | .72390 | .73160 | 514.55000 |
| GRADIENT | | | .00002 | -.00012 | -.00012 | -.00012 | .00005 | .00000 | -.00002 | .00279 | .14587 |

RUN# NO. 161/ 0 RWL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1P5F1 |
|----------|--------|----------|------------|--------|--------|--------|--------|---------|---------|---------|-----------|
| .900 | .110 | -4.96780 | 2106.20001 | .52410 | .52370 | .52370 | .52360 | .52470 | .52390 | .74030 | 706.15000 |
| .901 | 2.177 | -4.95670 | 2106.20001 | .52440 | .52590 | .52470 | .52610 | .52450 | .52370 | .64690 | 706.58000 |
| .899 | 4.258 | -4.97330 | 2107.00000 | .52440 | .52490 | .52420 | .52450 | .52380 | .52330 | .59420 | 707.47000 |
| .899 | 6.358 | -4.95170 | 2106.20001 | .52800 | .52850 | .52700 | .52650 | .52800 | .52650 | .56600 | 703.29000 |
| .899 | 8.495 | -4.94850 | 2107.00000 | .52610 | .52490 | .52600 | .52560 | .52470 | .52480 | .54920 | 703.78000 |
| .899 | 10.612 | -4.94230 | 2107.00000 | .52490 | .52330 | .52360 | .52330 | .52360 | .52280 | .53850 | 703.35000 |
| .863 | 12.739 | -4.92700 | 2107.00000 | .51630 | .51970 | .51650 | .51820 | .51780 | .51640 | .58030 | 703.78000 |
| .900 | 14.893 | -4.93200 | 2125.29999 | .51050 | .51000 | .51130 | .51130 | .51010 | .50840 | .51980 | 703.95000 |
| .901 | 17.025 | -4.94330 | 2125.50000 | .50150 | .50150 | .50150 | .50140 | .50140 | .50270 | .51280 | 714.40000 |
| .899 | 19.172 | -4.96970 | 2127.50000 | .49490 | .49550 | .49420 | .49340 | .49500 | .49500 | .50200 | 712.71000 |
| .900 | 21.325 | -4.96780 | 2128.20001 | .48240 | .48240 | .48470 | .48320 | .48300 | .48040 | .49450 | 713.21000 |
| .900 | 23.420 | -4.95980 | 2125.29999 | .46100 | .46200 | .46100 | .46320 | .46390 | .46040 | .48140 | 712.53000 |
| .902 | 25.498 | -4.91530 | 2125.29999 | .43920 | .43930 | .44160 | .44150 | .44030 | .43590 | .45510 | 714.19000 |
| .899 | 28.506 | -4.91220 | 2124.60001 | .43740 | .43800 | .43560 | .43770 | .43670 | .43480 | .45190 | 711.61000 |
| GRADIENT | | | -.00133 | .00007 | .00009 | .00012 | .08092 | -.00022 | -.00014 | -.03521 | .31815 |

TABULATED DATA - OAT61 (ARC 11-97-87-09#)
 ARC 11-97-87-09# OAT61 ORBITER

(BETR18) (02 AUG 75)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .009
 ALPHA = 474.8000 IN. YMRP = 1076.6800 IN. X0
 BPLF = 936.6800 IN. ZMRP = 375.0080 IN. Y0
 SCALE = .0300

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = 1076.6800 IN. Y0
 BPLF = 936.6800 IN. ZMRP = 375.0080 IN. Z0
 SCALE = .0300

RUN NO. 170# 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|-------|----------|----------|------------|---------|---------|--------|--------|--------|--------|--------|-----------|
| 1.198 | .102 | -4.97120 | 1988.80000 | .28150 | .28110 | .28010 | .28060 | .28000 | .27980 | .27710 | 826.23000 |
| 1.200 | 2.178 | -4.96860 | 1988.80000 | .28080 | .28160 | .28120 | .28100 | .28030 | .27990 | .27860 | 826.52000 |
| 1.199 | 4.278 | -4.96650 | 1988.80000 | .28120 | .28050 | .28060 | .28190 | .28110 | .28160 | .27970 | 826.42000 |
| 1.196 | 8.545 | -4.94420 | 1989.60001 | .27770 | .27840 | .27860 | .27790 | .27730 | .27820 | .27890 | 825.81000 |
| 1.195 | 10.699 | -4.93260 | 1988.80000 | .27440 | .27410 | .27470 | .27470 | .27330 | .27530 | .27650 | 825.24000 |
| 1.195 | 12.865 | -4.94070 | 1991.00000 | .27280 | .27370 | .27330 | .27310 | .27370 | .27370 | .27520 | 826.37000 |
| 1.197 | 15.028 | -4.95710 | 1990.30000 | .26910 | .26950 | .27050 | .27010 | .27000 | .26980 | .27280 | 826.39000 |
| 1.196 | 17.188 | -4.95200 | 1989.50001 | .26680 | .26710 | .26650 | .26690 | .26610 | .26670 | .27000 | 825.42000 |
| 1.196 | 21.509 | -4.95800 | 1992.38999 | .26020 | .25920 | .25950 | .26030 | .26050 | .26010 | .26970 | 826.92000 |
| | GRADIENT | .00113 | .00000 | -.00007 | -.00007 | .00012 | .00031 | .00025 | .00043 | .00062 | .04522 |

RUN NO. 171# 0 RN/L = 4.21 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| 1.404 | .078 | -4.97920 | 2039.80000 | .18750 | .18710 | .18700 | .18730 | .18720 | .18730 | .23220 | 879.49000 |
| 1.402 | 4.234 | -4.97250 | 2038.39999 | .19010 | .19000 | .18980 | .18990 | .18980 | .18930 | .21370 | 878.64000 |
| 1.400 | 8.490 | -4.96810 | 2039.80000 | .19040 | .19030 | .19060 | .19130 | .19110 | .19040 | .20430 | 879.42000 |
| 1.399 | 10.633 | -4.94760 | 2039.80000 | .18950 | .18930 | .18980 | .18970 | .18940 | .18970 | .19770 | 879.40000 |
| 1.400 | 12.779 | -4.95450 | 2039.80000 | .18630 | .18650 | .18670 | .18670 | .18660 | .18650 | .19650 | 879.42000 |
| 1.398 | 14.946 | -4.97770 | 2040.50000 | .18360 | .18340 | .18340 | .18380 | .18380 | .18400 | .18680 | 879.69000 |
| 1.397 | 17.102 | -4.95930 | 2041.20000 | .18280 | .18220 | .18240 | .18210 | .18250 | .18210 | .18630 | 879.97000 |
| 1.391 | 21.445 | -4.97150 | 2040.50000 | .18240 | .18130 | .18180 | .18230 | .18120 | .18130 | .18430 | 879.51000 |
| | GRADIENT | .00161 | -.33691 | .00063 | .00070 | .00067 | .00060 | .00063 | .00048 | -.08445 | -.15642 |

(BETR19) (02 AUG 75)

TABULATED DATA - OAI6L (ARC 11-97-87-094)

ARC 11-97-87-094 OAI6L ORBITER

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = 2.500 BEFLAP = -7.170

REFERENCE DATA

SPEF = 2690.000 SQ.FT. XMRP = 1076.680 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0080 IN. Z0
SCALE = .0300

RUN NO. 159/ 0 RVL = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .597 | .104 | -1.87680 | 2616.89999 | .75050 | .75130 | .75020 | .75040 | .75090 | .75400 | .73930 | 512.76000 |
| .597 | 2.124 | -1.86230 | 2615.89999 | .74950 | .75020 | .75000 | .75020 | .75100 | .75000 | .74570 | 512.76000 |
| .597 | 4.172 | -1.84458 | 2616.89999 | .75050 | .75159 | .75110 | .75090 | .75110 | .75110 | .74700 | 512.76000 |
| .596 | 6.250 | -1.83580 | 2616.89999 | .75170 | .75159 | .75110 | .75160 | .75140 | .75150 | .74800 | 512.16000 |
| .595 | 8.337 | -1.83540 | 2616.89999 | .75150 | .75120 | .75100 | .75100 | .75050 | .75130 | .75020 | 512.16000 |
| .596 | 10.446 | -1.83580 | 2616.89999 | .75120 | .75040 | .75120 | .75070 | .75040 | .75040 | .75040 | 512.18000 |
| .597 | 14.669 | -1.82620 | 2616.89999 | .75080 | .75050 | .75140 | .75060 | .75050 | .75020 | .75070 | 512.18000 |
| .597 | 16.803 | -1.79560 | 2618.29999 | .74830 | .74770 | .74720 | .74440 | .74450 | .74460 | .74520 | 512.90000 |
| .597 | 18.935 | -1.85530 | 2619.00000 | .74190 | .74560 | .74210 | .74190 | .74210 | .74420 | .74420 | 513.96000 |
| .597 | 21.050 | -1.85580 | 2619.00000 | .73860 | .73870 | .73650 | .73610 | .73610 | .74270 | .74270 | 512.80000 |
| .597 | 23.139 | -1.84870 | 2619.00000 | .73860 | .73270 | .73270 | .73160 | .73230 | .73270 | .73750 | 513.98000 |
| .598 | 25.211 | -1.83690 | 2619.70001 | .72780 | .72770 | .72650 | .72790 | .72750 | .72650 | .73210 | 514.56000 |
| .597 | 26.209 | -1.81190 | 2619.70001 | .72160 | .72170 | .72280 | .72110 | .72250 | .72250 | .72730 | 513.96000 |
| | | .00793 | .00002 | .00000 | .00065 | .00022 | .00012 | .00005 | .00003 | .00189 | .00000 |

RUN NO. 162/ 0 RVL = 4.24 GRADIENT INTERVAL = -5.007 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .900 | .078 | -1.87578 | 2124.50001 | .52478 | .52530 | .52530 | .52510 | .52490 | .52378 | .46480 | 712.04000 |
| .902 | 2.149 | -1.87200 | 2126.79999 | .52500 | .52530 | .52676 | .52578 | .52630 | .52580 | .50190 | 714.33000 |
| .903 | 4.235 | -1.86820 | 2128.20001 | .52530 | .52391 | .52560 | .52510 | .52276 | .52420 | .50170 | 715.70000 |
| .901 | 6.349 | -1.85190 | 2128.20001 | .52590 | .52750 | .52760 | .52760 | .52800 | .52670 | .51830 | 714.05000 |
| .902 | 8.464 | -1.85330 | 2126.79999 | .52390 | .52366 | .52330 | .52510 | .52510 | .52470 | .52000 | 714.33000 |
| .899 | 10.622 | -1.84370 | 2126.79999 | .52120 | .53220 | .52290 | .52350 | .52430 | .52370 | .52190 | 712.22000 |
| .903 | 12.742 | -1.84190 | 2127.50000 | .51380 | .51360 | .51550 | .51530 | .51600 | .51440 | .51860 | 715.23000 |
| .900 | 14.860 | -1.85018 | 2127.50000 | .50630 | .50400 | .50620 | .50710 | .50560 | .50710 | .51340 | 713.57000 |
| .900 | 17.034 | -1.83140 | 2126.79999 | .50220 | .49278 | .49440 | .49308 | .49220 | .49310 | .50770 | 713.06000 |
| .899 | 19.200 | -1.89710 | 2127.50000 | .47830 | .47726 | .47810 | .47810 | .48220 | .47660 | .50050 | 712.28000 |
| .899 | 21.341 | -1.88100 | 2126.79999 | .46150 | .46150 | .46078 | .46078 | .47870 | .47660 | .48990 | 711.79000 |
| .900 | 23.442 | -1.85750 | 2127.50000 | .44140 | .44150 | .44030 | .44030 | .46010 | .45930 | .47770 | 713.57000 |
| .899 | 25.490 | -1.84580 | 2127.50000 | .42940 | .42940 | .44030 | .44030 | .43780 | .43690 | .46130 | 712.71000 |
| .900 | 26.505 | -1.83300 | 2124.60001 | .40014 | .43840 | .43910 | .43630 | .43940 | .43010 | .45110 | 712.47000 |
| | | .00277 | .86587 | .00014 | .00034 | .00007 | .00000 | .00053 | .00012 | .00562 | .00000 |

TABULATED DATA - 0M16L (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA
 BETA = -2.000 ELEMEN = .000
 AILRCN = 2.500 EDFLAP = -7.370

REFERENCE DATA
 SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 169 / 0 RWL = 4.23 GRADIENT INTERVAL = 5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1PSF1 |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.200 | .090 | -1.88630 | 1592.39999 | .28280 | .28180 | .28140 | .28100 | .28050 | .28010 | .27960 | 828.10000 |
| 1.199 | 4.248 | -1.87220 | 1993.30000 | .28170 | .28160 | .28140 | .28100 | .28050 | .28010 | .27960 | 828.50000 |
| 1.197 | 8.535 | -1.84220 | 1991.70000 | .27900 | .27850 | .27850 | .27800 | .27750 | .27700 | .27650 | 826.94000 |
| 1.196 | 10.700 | -1.83130 | 1991.70000 | .27710 | .27690 | .27690 | .27650 | .27600 | .27550 | .27500 | 827.35000 |
| 1.195 | 12.850 | -1.83700 | 1991.70000 | .27460 | .27450 | .27450 | .27400 | .27350 | .27300 | .27250 | 826.74000 |
| 1.194 | 15.004 | -1.87320 | 1988.60001 | .26780 | .26780 | .26780 | .26730 | .26680 | .26630 | .26580 | 826.21000 |
| 1.193 | 17.219 | -1.91640 | 1990.30000 | .26560 | .26560 | .26560 | .26510 | .26460 | .26410 | .26360 | 826.19000 |
| 1.192 | 21.550 | -1.87850 | 1992.39999 | .26090 | .25970 | .25970 | .25920 | .25870 | .25820 | .25770 | 827.71000 |
| 1.199 | GRADIENT | .00338 | -.50380 | -.00007 | -.00005 | -.00005 | -.00010 | -.00009 | -.00009 | -.00070 | -.25870 |

RUN NO. 172 / 0 RWL = 4.19 GRADIENT INTERVAL = 5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1PSF1 |
|-------|----------|----------|------------|---------|--------|--------|--------|--------|--------|--------|-----------|
| 1.401 | .049 | -1.86950 | 2039.10001 | .19240 | .19230 | .19230 | .19190 | .19180 | .19220 | .19230 | 879.14000 |
| 1.397 | 4.284 | -1.89060 | 2039.80000 | .19240 | .19230 | .19230 | .19230 | .19200 | .19210 | .19260 | 879.45000 |
| 1.396 | 8.569 | -1.87690 | 2039.10001 | .19290 | .19290 | .19290 | .19270 | .19270 | .19260 | .19150 | 879.06000 |
| 1.395 | 10.750 | -1.85890 | 2039.80000 | .19110 | .19140 | .19140 | .19130 | .19130 | .19110 | .19160 | 879.35000 |
| 1.394 | 12.878 | -1.81320 | 2039.80000 | .18830 | .18780 | .18780 | .18720 | .18680 | .18650 | .18540 | 879.57000 |
| 1.393 | 14.971 | -1.84360 | 2040.50000 | .18650 | .18640 | .18640 | .18600 | .18580 | .18550 | .18610 | 879.69000 |
| 1.392 | 17.101 | -1.82320 | 2039.10001 | .18390 | .18440 | .18440 | .18390 | .18350 | .18320 | .18370 | 879.07000 |
| 1.399 | 21.408 | -1.84740 | 2041.20000 | .18390 | .18410 | .18390 | .18390 | .18390 | .18430 | .18500 | 879.45000 |
| 1.396 | GRADIENT | .00211 | .16610 | -.00002 | .00009 | .00009 | .00009 | .00009 | .00002 | .00034 | -.07556 |

18E7R2D) (22 AUG 78)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AIRRON = 2.500 ECFLAR = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 996.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 158/ 0 RN/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PTS/PT | PT7/PT | Q(PSF) |
|------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .597 | .094 | .16180 | 2616.20001 | .75062 | .75000 | .75126 | .75280 | .75350 | .75090 | .74100 | 512.75000 |
| .597 | 2.118 | .20970 | 2615.20001 | .75062 | .75080 | .75100 | .75130 | .75130 | .75130 | .74520 | 512.75000 |
| .597 | 4.175 | .20940 | 2616.89999 | .75110 | .75070 | .75090 | .75150 | .75150 | .75070 | .74910 | 512.34000 |
| .595 | 6.242 | .21410 | 2616.89999 | .75110 | .75050 | .75150 | .75090 | .75150 | .75070 | .74950 | 512.18000 |
| .597 | 8.335 | .22150 | 2617.60001 | .75150 | .75140 | .75150 | .75110 | .75130 | .75090 | .75050 | 512.76000 |
| .597 | 10.433 | .21900 | 2616.89999 | .75140 | .75210 | .75220 | .75190 | .75130 | .75090 | .75090 | 512.19000 |
| .596 | 12.526 | .21770 | 2617.60001 | .75110 | .75130 | .75090 | .75090 | .75090 | .75090 | .75120 | 512.19000 |
| .596 | 14.613 | .23280 | 2617.60001 | .75080 | .74940 | .75030 | .74940 | .74940 | .74920 | .74920 | 512.79000 |
| .597 | 16.768 | .22650 | 2619.00000 | .74950 | .74440 | .74390 | .74390 | .74390 | .74240 | .74240 | 513.58000 |
| .597 | 18.893 | .21520 | 2619.00000 | .74300 | .73910 | .74050 | .73910 | .73590 | .73890 | .73890 | 512.80000 |
| .597 | 21.001 | .21080 | 2619.00000 | .73520 | .73610 | .73610 | .73640 | .73530 | .73310 | .73440 | 514.56000 |
| .597 | 23.094 | .21520 | 2619.70001 | .72940 | .72950 | .72920 | .73120 | .72890 | .72270 | .72930 | 512.59000 |
| .599 | 25.171 | .20850 | 2619.00000 | .72350 | .72410 | .72310 | .72290 | .72330 | .72270 | .72930 | 512.59000 |
| .597 | 26.167 | .01163 | .17197 | .00012 | .00017 | .00017 | .00032 | .00034 | .00005 | .00174 | 114.492 |

RUN NO. 163/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .900 | .056 | .17790 | 2125.29999 | .52370 | .52400 | .52290 | .52180 | .52160 | .52160 | .48320 | 712.56000 |
| .901 | 2.145 | .21950 | 2125.29999 | .52500 | .52550 | .52520 | .52540 | .52510 | .52510 | .50120 | 712.37000 |
| .900 | 4.245 | .22010 | 2126.10001 | .52730 | .52650 | .52670 | .52590 | .52590 | .52590 | .51290 | 712.56000 |
| .900 | 6.352 | .21270 | 2126.10001 | .52690 | .52640 | .52670 | .52670 | .52630 | .52630 | .50990 | 712.30000 |
| .900 | 8.471 | .22330 | 2126.10001 | .52560 | .52390 | .52390 | .52390 | .52390 | .52390 | .50990 | 712.30000 |
| .900 | 10.606 | .21270 | 2126.79999 | .52360 | .51910 | .51930 | .51770 | .51770 | .51820 | .50990 | 712.65000 |
| .900 | 12.727 | .21760 | 2126.10001 | .52000 | .51910 | .51890 | .51890 | .51890 | .51890 | .50790 | 712.30000 |
| .900 | 14.861 | .22610 | 2126.10001 | .51210 | .51200 | .51190 | .51190 | .51190 | .51240 | .50790 | 712.30000 |
| .900 | 17.007 | .22730 | 2126.10001 | .50580 | .50510 | .50510 | .50370 | .50370 | .50280 | .50790 | 711.79000 |
| .900 | 19.159 | .22360 | 2126.79999 | .49350 | .49250 | .49250 | .49180 | .49180 | .49150 | .49160 | 713.89000 |
| .901 | 21.293 | .20910 | 2126.79999 | .47590 | .47620 | .47590 | .47600 | .47600 | .47600 | .47790 | 712.65000 |
| .900 | 23.391 | .20310 | 2126.79999 | .46300 | .46120 | .46120 | .46010 | .46010 | .46010 | .46320 | 712.65000 |
| .900 | 25.460 | .19730 | 2126.79999 | .45060 | .44720 | .44720 | .44440 | .44440 | .44450 | .45130 | 713.91000 |
| .901 | 26.483 | .21230 | 2126.79999 | .43760 | .43690 | .43760 | .43650 | .43650 | .43760 | .45130 | 713.91000 |
| | GRADIENT | .01008 | .19173 | .00386 | .00360 | .00360 | .00360 | .00360 | .00127 | .00710 | 11.98650 |

TABULATED DATA - OA161 (ARC 11-97-87-09*)
ARC 11-97-87-09* OA161 ORBITER

REFERENCE DATA

BETA = 2690.0000 SQ. FT. XN*P = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300.

PARAMETRIC DATA

BETA = .000 ELEVON = -.080
AELRON = 2.506 BOFLAP = -7.170

RUN NO. 168/ 0 R/W/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|--------|------------|--------|--------|---------|---------|--------|--------|--------|-----------|
| .20020 | 1991.00000 | .26340 | .26370 | .26430 | .26500 | .26420 | .26430 | .26060 | 827.55000 |
| .21160 | 1983.60001 | .26390 | .26410 | .26370 | .26400 | .26460 | .26490 | .26310 | 826.80000 |
| .21680 | 1990.30000 | .26440 | .26420 | .26390 | .26400 | .26390 | .26350 | .26340 | 826.59000 |
| .22870 | 1992.39999 | .26190 | .26110 | .26130 | .26190 | .26200 | .26140 | .26230 | 826.72000 |
| .23180 | 1991.00000 | .26090 | .26160 | .26090 | .26080 | .26090 | .26000 | .26180 | 825.77000 |
| .21620 | 1991.70000 | .27710 | .27650 | .27600 | .27730 | .27590 | .27600 | .27980 | 827.14000 |
| .22490 | 1991.00000 | .26900 | .26940 | .26870 | .26890 | .26880 | .26910 | .27510 | 826.96000 |
| .21840 | 1994.00000 | .26400 | .26270 | .26240 | .26240 | .26230 | .26260 | .26920 | 826.76000 |
| .20580 | 1995.50000 | .25880 | .25910 | .25810 | .25760 | .25710 | .25790 | .26470 | 826.44000 |
| .00270 | -.33186 | .25020 | .24900 | .24820 | .24830 | .24940 | .24920 | .25800 | 829.01000 |
| | | .00012 | .00009 | -.00019 | -.00024 | .00009 | .00014 | .00059 | -.17776 |

RUN NO. 173/ 0 R/W/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .20070 | 2070.20001 | .19540 | .19520 | .19500 | .19540 | .19530 | .19520 | .18950 | 892.58000 |
| .17440 | 2069.50000 | .19730 | .19720 | .19730 | .19700 | .19670 | .19730 | .19290 | 892.26000 |
| .19230 | 2070.20001 | .19620 | .19650 | .19680 | .19580 | .19580 | .19630 | .19420 | 892.54000 |
| .17290 | 2070.20001 | .19470 | .19490 | .19520 | .19480 | .19490 | .19460 | .19430 | 892.49000 |
| .17940 | 2070.20001 | .19400 | .19370 | .19390 | .19350 | .19430 | .19390 | .19400 | 892.49000 |
| .17820 | 2070.89999 | .19190 | .19160 | .19180 | .19100 | .19150 | .19100 | .19300 | 892.60000 |
| .16060 | 2070.89999 | .18760 | .18800 | .18780 | .18730 | .18770 | .18810 | .19050 | 892.82000 |
| .17960 | 2070.20001 | .18580 | .18580 | .18520 | .18560 | .18600 | .18550 | .18840 | 892.49000 |
| .20640 | 2070.20001 | .18640 | .18570 | .18560 | .18590 | .18580 | .18630 | .18760 | 892.38000 |
| .21760 | 2070.89999 | .18150 | .18070 | .18170 | .18250 | .18150 | .18120 | .18490 | 892.40000 |
| -.00621 | -.16543 | .00045 | .00047 | .00054 | .00038 | .00033 | .00050 | .00080 | -.07562 |

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(BE7R21) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = 2.500 BOFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-09+)

ARC 11-97-87-08+ 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0308

| MACH | ALPHA | BETA | PT | RUN NO. | 157/ 0 | RN/L = 4.24 | GRADIENT INTERVAL = -5.00/ 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|------|----------|---------|------------|---------|--------|-------------|---------------------------------|---------|---------|---------|--------|--------|---------|--------|-----------|
| .900 | .081 | 2.25050 | 2616.89999 | | | | | .75040 | .75040 | .75050 | .75040 | .75040 | .75120 | .74050 | 511.60000 |
| .900 | 2.124 | 2.28130 | 2617.60001 | | | | | .75110 | .75110 | .75090 | .75140 | .75140 | .75100 | .74510 | 512.19000 |
| .900 | 4.184 | 2.29490 | 2617.60001 | | | | | .75030 | .75090 | .75090 | .75120 | .75090 | .75080 | .74760 | 512.19000 |
| .900 | 6.255 | 2.30590 | 2617.60001 | | | | | .75090 | .75090 | .75070 | .75120 | .75050 | .75000 | .74880 | 511.81000 |
| .900 | 8.356 | 2.31260 | 2617.60001 | | | | | .75060 | .75140 | .75080 | .75120 | .75120 | .75170 | .74980 | 512.19000 |
| .900 | 10.455 | 2.32710 | 2618.29999 | | | | | .75120 | .75120 | .75170 | .75130 | .75120 | .75120 | .74970 | 512.21000 |
| .900 | 12.524 | 2.31880 | 2619.00000 | | | | | .75070 | .75190 | .75128 | .75070 | .75060 | .75120 | .75340 | 512.80000 |
| .900 | 14.760 | 2.29870 | 2619.00000 | | | | | .74980 | .74590 | .75040 | .74920 | .74900 | .74920 | .74990 | 513.38000 |
| .900 | 16.900 | 2.29780 | 2619.00000 | | | | | .74660 | .74540 | .74620 | .74630 | .74680 | .74680 | .74670 | 513.38000 |
| .900 | 19.010 | 2.29000 | 2619.00000 | | | | | .74370 | .74420 | .74380 | .74480 | .74480 | .74260 | .74900 | 512.22000 |
| .900 | 21.099 | 2.27910 | 2619.00000 | | | | | .74190 | .74050 | .73940 | .73980 | .73870 | .74120 | .74400 | 512.22000 |
| .900 | 23.181 | 2.28970 | 2619.00000 | | | | | .73830 | .73840 | .73990 | .73980 | .73850 | .73650 | .74380 | 512.81000 |
| .900 | 25.269 | 2.31070 | 2619.70001 | | | | | .73016 | .73130 | .72860 | .72910 | .73110 | .73096 | .73680 | 512.81000 |
| .900 | 28.228 | 2.31370 | 2619.00800 | | | | | .72200 | .72320 | .72270 | .72320 | .72320 | .72180 | .73140 | 513.96000 |
| | GRADIENT | .01081 | .17037 | | | | | -.00007 | -.00022 | -.00032 | .00019 | .00012 | -.00010 | .00171 | .14359 |

| MACH | ALPHA | BETA | PT | RUN NO. | 164/ 0 | RN/L = 4.24 | GRADIENT INTERVAL = -5.00/ 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|------|----------|---------|------------|---------|--------|-------------|---------------------------------|--------|--------|---------|--------|--------|--------|--------|-----------|
| .900 | .068 | 2.28440 | 2126.29999 | | | | | .52400 | .52500 | .52450 | .52410 | .52350 | .52370 | .48310 | 712.53000 |
| .900 | 2.147 | 2.30800 | 2126.10001 | | | | | .52590 | .52520 | .52460 | .52600 | .52610 | .52520 | .50130 | 713.43000 |
| .900 | 4.257 | 2.31600 | 2126.10001 | | | | | .52590 | .52620 | .52430 | .52610 | .52660 | .52520 | .51110 | 713.02000 |
| .900 | 6.371 | 2.32650 | 2126.10001 | | | | | .52740 | .52540 | .52600 | .52650 | .52670 | .52730 | .51740 | 712.16000 |
| .900 | 8.500 | 2.32670 | 2126.10001 | | | | | .52610 | .52740 | .52670 | .52700 | .52710 | .52810 | .52250 | 712.59000 |
| .900 | 10.683 | 2.32890 | 2126.10001 | | | | | .52080 | .52130 | .52670 | .52330 | .52200 | .52290 | .52240 | 713.02000 |
| .900 | 12.793 | 2.31530 | 2126.10001 | | | | | .51610 | .52060 | .51910 | .51720 | .51570 | .51380 | .51930 | 712.16000 |
| .900 | 14.954 | 2.34110 | 2126.79999 | | | | | .50660 | .50790 | .50960 | .51180 | .50890 | .50310 | .51410 | 713.91000 |
| .900 | 17.132 | 2.33560 | 2126.10001 | | | | | .50520 | .50340 | .50160 | .50120 | .50310 | .50080 | .50910 | 712.16000 |
| .900 | 19.275 | 2.30890 | 2126.79999 | | | | | .49050 | .49070 | .49050 | .49160 | .49260 | .47760 | .49130 | 712.65000 |
| .900 | 21.391 | 2.30890 | 2127.50000 | | | | | .47410 | .47720 | .47780 | .47760 | .48090 | .47760 | .47450 | 713.15000 |
| .900 | 23.443 | 2.31920 | 2127.50000 | | | | | .45590 | .45770 | .45810 | .45730 | .46070 | .45540 | .46220 | 713.57000 |
| .900 | 25.503 | 2.33210 | 2127.50000 | | | | | .44780 | .44820 | .44470 | .44210 | .44240 | .44450 | .46220 | 713.57000 |
| .900 | 28.516 | 2.35690 | 2126.79999 | | | | | .43760 | .43930 | .43940 | .43720 | .44000 | .44040 | .45340 | 713.08000 |
| | GRADIENT | .00752 | .19022 | | | | | .00045 | .00029 | -.00005 | .00048 | .00074 | .00036 | .00567 | .11618 |

TABLATED DATA - 0A16K (ARC 11-97-87-094)

ARC 11-97-87-094 0A16K ORBITER

(BETRE1) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
A:LRON = 2.500 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SO.FT. XMRP = 1.076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 938.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 1674 0 R:AL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|-------|----------|---------|------------|---------|--------|--------|--------|--------|--------|--------|-----------|
| 1.199 | .044 | 2.28870 | 1993.10001 | .28240 | .28270 | .28200 | .28160 | .28070 | .28130 | .28060 | 828.28000 |
| 1.200 | 4.270 | 2.29020 | 1988.10001 | .28240 | .28270 | .28210 | .28160 | .28070 | .28130 | .28060 | 826.44000 |
| 1.198 | 8.574 | 2.31460 | 1991.00000 | .28000 | .28040 | .27950 | .28130 | .28110 | .28060 | .28060 | 826.98000 |
| 1.197 | 10.736 | 2.32230 | 1991.70000 | .27770 | .27750 | .27680 | .27680 | .27610 | .27720 | .27900 | 826.94000 |
| 1.195 | 12.917 | 2.31060 | 1991.00000 | .27690 | .27340 | .27600 | .27640 | .27620 | .27580 | .27900 | 826.17000 |
| 1.199 | 15.090 | 2.34800 | 1991.00000 | .26850 | .27040 | .27030 | .27410 | .26960 | .26890 | .27520 | 827.16000 |
| 1.197 | 17.307 | 2.34840 | 1991.70000 | .26440 | .26310 | .26410 | .26470 | .26550 | .26578 | .27160 | 828.94000 |
| 1.200 | 21.582 | 2.32530 | 1994.50000 | .25940 | .25810 | .26080 | .26100 | .26330 | .26880 | .26770 | 829.03000 |
| | GRADIENT | .00035 | -1.18316 | -.00067 | .00014 | .00002 | .00052 | .00033 | .00026 | .00014 | -4.3540 |

RUN NO. 1744 0 R:AL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.402 | .065 | 2.32070 | 2070.20001 | .19270 | .19240 | .19230 | .19220 | .19240 | .19270 | .19020 | 892.57000 |
| 1.401 | 4.277 | 2.31890 | 2070.89999 | .19300 | .19350 | .19390 | .19360 | .19380 | .19400 | .19190 | 892.86000 |
| 1.398 | 8.574 | 2.25500 | 2068.79999 | .19560 | .19620 | .19560 | .19610 | .19590 | .19620 | .190 | 891.89000 |
| 1.397 | 10.709 | 2.24200 | 2058.50000 | .19190 | .19210 | .19180 | .19250 | .19230 | .19290 | .19310 | 892.18000 |
| 1.400 | 12.814 | 2.25640 | 2068.79999 | .18890 | .18860 | .18860 | .18890 | .18910 | .18910 | .191 | 891.85000 |
| 1.399 | 14.957 | 2.29730 | 2069.50000 | .18920 | .18890 | .18990 | .18980 | .18980 | .18880 | .19010 | 892.23000 |
| 1.400 | 17.138 | 2.33230 | 2069.50000 | .18560 | .18560 | .18600 | .18590 | .18610 | .18600 | .18940 | 892.21000 |
| 1.397 | 21.449 | 2.31790 | 2070.89999 | .18530 | .18500 | .18530 | .18540 | .18560 | .18580 | .18730 | 892.77000 |
| | GRADIENT | -.00065 | .15519 | .00026 | .00028 | .00038 | .00033 | .00033 | .00031 | .00040 | .06885 |

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TABULATED DATA - 0A164 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER

(BETRE27 (02 AUG 76)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 5.080 ELEVON = .000
 AIRLON = 2.588 BDFLAP = -7.170

RUN NO. 156/ 0' RMKL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .597 | .110 | 5.36980 | 2618.29999 | .74970 | .74980 | .74960 | .74990 | .74870 | .74980 | .78750 | 512.78800 |
| .596 | 2.143 | 5.37790 | 2617.60001 | .74980 | .75040 | .75010 | .75020 | .75020 | .75020 | .77130 | 512.19800 |
| .596 | 4.210 | 5.38340 | 2616.89999 | .74990 | .75040 | .75020 | .75030 | .75010 | .75020 | .76220 | 511.60000 |
| .595 | 6.296 | 5.38990 | 2617.60001 | .75040 | .75020 | .75000 | .75030 | .75070 | .75040 | .75680 | 512.19000 |
| .595 | 8.397 | 5.39440 | 2617.60001 | .75000 | .75090 | .75050 | .75030 | .75110 | .75040 | .75360 | 511.03600 |
| .595 | 10.511 | 5.39890 | 2618.29999 | .75090 | .75120 | .75080 | .75180 | .75090 | .75060 | .75270 | 511.04000 |
| .595 | 12.639 | 5.39940 | 2619.00000 | .74980 | .74860 | .74870 | .74970 | .74980 | .74940 | .75130 | 511.64000 |
| .595 | 14.755 | 5.39100 | 2618.29999 | .74990 | .74830 | .74860 | .74830 | .74890 | .74940 | .75000 | 510.46000 |
| .595 | 16.860 | 5.37860 | 2618.29999 | .74930 | .74650 | .74630 | .74460 | .74570 | .74490 | .74720 | 511.04000 |
| .597 | 18.977 | 5.38990 | 2618.29999 | .74420 | .74430 | .74380 | .74350 | .74220 | .74500 | .74620 | 512.79000 |
| .596 | 21.076 | 5.38630 | 2619.00000 | .74210 | .74260 | .74210 | .74140 | .74210 | .74400 | .74400 | 511.62000 |
| .597 | 23.166 | 5.39610 | 2619.00000 | .73860 | .73860 | .73910 | .73860 | .73860 | .73860 | .74130 | 513.38000 |
| .597 | 25.221 | 5.41450 | 2619.00000 | .73370 | .73610 | .73610 | .73670 | .73500 | .73500 | .73770 | 512.80000 |
| .597 | 26.176 | 5.39360 | 2619.00000 | .72490 | .72510 | .72490 | .72490 | .72260 | .72310 | .73110 | 513.38000 |
| | GRADIENT | .00579 | .34142 | .00012 | .00002 | .00046 | .00029 | .00039 | .00010 | .00617 | .29920 |

RUN NO. 165/ 0' RMVL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .899 | .069 | 5.38660 | 2125.29999 | .52320 | .52310 | .52450 | .52300 | .52290 | .52100 | .48250 | 712.10000 |
| .900 | 2.160 | 5.40290 | 2127.50000 | .52160 | .52160 | .52310 | .52310 | .52290 | .52480 | .56720 | 713.57000 |
| .900 | 4.271 | 5.41240 | 2126.79999 | .52410 | .52400 | .52320 | .52330 | .52640 | .52410 | .51160 | 713.08000 |
| .902 | 6.399 | 5.41300 | 2126.79999 | .52500 | .52370 | .52360 | .52360 | .52560 | .52610 | .51660 | 714.33000 |
| .901 | 8.518 | 5.41510 | 2126.79999 | .52270 | .52300 | .52400 | .52460 | .52560 | .52460 | .52000 | 713.91000 |
| .899 | 10.659 | 5.40990 | 2127.50000 | .52320 | .52360 | .52280 | .52000 | .52070 | .52120 | .52020 | 712.71000 |
| .901 | 12.795 | 5.41050 | 2126.79999 | .51310 | .51260 | .51440 | .51420 | .51680 | .51780 | .51680 | 713.91000 |
| .901 | 14.945 | 5.43020 | 2128.20001 | .50940 | .50940 | .50440 | .50640 | .50830 | .50880 | .51330 | 714.45000 |
| .900 | 17.076 | 5.45140 | 2128.20001 | .49870 | .49730 | .50200 | .50070 | .50300 | .50340 | .50850 | 713.64000 |
| .899 | 19.234 | 5.46150 | 2128.20001 | .49410 | .49410 | .49470 | .49430 | .49710 | .49890 | .50570 | 713.79000 |
| .899 | 21.357 | 5.46930 | 2126.79999 | .48170 | .48170 | .47900 | .48100 | .48300 | .48220 | .49500 | 711.79000 |
| .900 | 23.433 | 5.45320 | 2126.79999 | .46890 | .46460 | .46270 | .46190 | .46190 | .45910 | .47930 | 713.08000 |
| .901 | 25.479 | 5.45430 | 2126.79999 | .46040 | .45370 | .45180 | .45340 | .45250 | .45410 | .46710 | 713.50000 |
| .901 | 26.493 | 5.46760 | 2124.60001 | .44650 | .44620 | .44490 | .44650 | .44580 | .44680 | .45900 | 712.89000 |
| | GRADIENT | .00614 | .39684 | .00022 | .00022 | .00017 | .00079 | .00097 | .00074 | .00668 | .23246 |

TABLATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-084 0A161 ORBITER

(BETREE) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALLRON = 2.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 1664 0 RM/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|-----------|
| 1.290 | .074 | 5.40040 | 1990.30000 | .28140 | .28080 | .28090 | .28030 | .28080 | .79890 | 827.37000 |
| 1.198 | 4.297 | 5.42110 | 1995.00000 | .28310 | .28310 | .28390 | .28390 | .28348 | .57880 | 824.92000 |
| 1.199 | 8.598 | 5.41080 | 1995.89999 | .27728 | .27660 | .27628 | .27500 | .27430 | .44670 | 829.19000 |
| 1.198 | 10.767 | 5.39560 | 1990.30000 | .27600 | .27600 | .27510 | .27510 | .27480 | .37400 | 826.78000 |
| 1.195 | 12.921 | 5.41088 | 1990.30000 | .27340 | .27300 | .27310 | .27310 | .27380 | .33170 | 825.79000 |
| 1.197 | 15.083 | 5.42658 | 1993.80000 | .27370 | .26890 | .26880 | .27030 | .27390 | .30720 | 827.87000 |
| 1.197 | 17.241 | 5.45798 | 1990.30000 | .26870 | .26890 | .26880 | .26100 | .26860 | .29228 | 826.39000 |
| 1.194 | 21.521 | 5.46620 | 1995.20000 | .26330 | .26240 | .26200 | .26100 | .26220 | .27950 | 827.63000 |
| | GRADIENT | .00490 | -1.01820 | .00054 | .00033 | .00071 | .00085 | .00062 | .05312 | .59014 |

RUN NO. 1754 0 RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|-----------|
| 1.399 | .083 | 5.43190 | 2068.10001 | .19060 | .19040 | .19020 | .19070 | .19070 | .19940 | 891.59000 |
| 1.399 | 4.292 | 5.42220 | 2068.10001 | .19150 | .19120 | .19140 | .19160 | .19170 | .19100 | 891.61000 |
| 1.398 | 8.555 | 5.38160 | 2068.10001 | .19130 | .19080 | .19040 | .19020 | .19050 | .19040 | 891.58000 |
| 1.152 | 10.681 | 5.34660 | 2068.79999 | .19110 | .19070 | .19070 | .18990 | .19030 | .19000 | 891.89000 |
| 1.357 | 12.806 | 5.40600 | 2068.79999 | .18900 | .18900 | .18900 | .18950 | .18900 | .18970 | 891.85000 |
| 1.397 | 14.957 | 5.41740 | 2068.79999 | .18950 | .18740 | .18660 | .18650 | .18660 | .18660 | 891.87000 |
| 1.395 | 17.123 | 5.42500 | 2068.10001 | .18700 | .18740 | .18700 | .18700 | .18700 | .18770 | 891.54000 |
| 1.395 | 21.438 | 5.44700 | 2070.89999 | .18610 | .18570 | .18570 | .18630 | .18460 | .18720 | 892.78000 |
| | GRADIENT | .00221 | .00000 | .00021 | .00019 | .00029 | .00026 | .00024 | .00214 | .00476 |

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OF POOR QUALITY

TABULATED DATA - 0A16N (ARC 11-97-87-894)
ARC 11-97-87-895 0A16S ORBITER.

(BETREZ) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = 5.000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. = 1076.6800 IN. X0
LREF = 474.8000 IN. = .0000 IN. Y0
BREF = 996.6800 IN. = 375.0000 IN. Z0
SCALE = .J300.

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|------|----------|----------|------------|---------|---------|--------|---------|--------|---------|--------|-----------|
| .987 | .144 | -4.92350 | 2631.00000 | .75130 | .75130 | .75070 | .75140 | .75970 | .75150 | .96120 | 515.35000 |
| .996 | 4.207 | -4.92340 | 2623.60001 | .75100 | .75060 | .75100 | .75130 | .75080 | .75140 | .84310 | 514.16000 |
| .995 | 8.370 | -4.91020 | 2629.60001 | .75150 | .75260 | .75168 | .75180 | .75250 | .75090 | .86940 | 513.00000 |
| .996 | 10.478 | -4.89320 | 2638.29999 | .75190 | .75140 | .75190 | .75160 | .75170 | .75200 | .71590 | 514.17000 |
| .996 | 12.589 | -4.87110 | 2650.29999 | .75090 | .75060 | .75080 | .75050 | .75100 | .75070 | .73020 | 514.75000 |
| .996 | 14.592 | -4.85390 | 2630.29998 | .74830 | .74880 | .74880 | .74770 | .74590 | .74610 | .75720 | 513.01000 |
| .996 | 16.796 | -4.86836 | 2630.29998 | .74630 | .74630 | .74590 | .74610 | .74590 | .74610 | .74130 | 513.58000 |
| .994 | 21.058 | -4.89880 | 2631.00000 | .74120 | .74120 | .74100 | .74100 | .74080 | .74080 | .74030 | 511.85000 |
| .994 | GRADIENT | -.00047 | -.34452 | -.00015 | -.00017 | .00007 | -.00002 | .00002 | -.00002 | .02016 | -.23688 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .900 | .112 | -4.94500 | 2107.00000 | .52540 | .52590 | .52590 | .52600 | .52540 | .52470 | .51520 | 708.64000 |
| .900 | 4.265 | -4.94410 | 2107.08908 | .52680 | .52670 | .52730 | .52810 | .52720 | .52760 | .52060 | 706.64000 |
| .899 | 6.377 | -4.93360 | 2104.79999 | .52780 | .52810 | .52740 | .52730 | .52690 | .52750 | .52360 | 704.74000 |
| .901 | 8.491 | -4.93620 | 2107.70001 | .52410 | .52370 | .52300 | .52340 | .52400 | .52410 | .52350 | 707.12000 |
| .900 | 10.819 | -4.93140 | 2104.79999 | .52270 | .52200 | .52370 | .52280 | .52290 | .52300 | .52320 | 709.60000 |
| .899 | 12.739 | -4.91670 | 2106.20001 | .51720 | .51720 | .51620 | .51660 | .51740 | .51680 | .51990 | 705.72000 |
| .900 | 14.875 | -4.92380 | 2107.00000 | .51000 | .50960 | .50880 | .50890 | .50860 | .50870 | .51500 | 708.21000 |
| .898 | 17.006 | -4.92680 | 2105.50000 | .50420 | .50400 | .50380 | .50490 | .50530 | .50870 | .51140 | 709.23000 |
| .900 | GRADIENT | -.00195 | -.00001 | .00034 | .00019 | .00034 | .00051 | .00043 | .00070 | .00136 | -.00068 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|------|----------|----------|------------|--------|--------|--------|---------|---------|--------|--------|-----------|
| .980 | .121 | -4.95340 | 2064.50000 | .43370 | .43430 | .43220 | .43390 | .43390 | .43280 | .36980 | 750.35000 |
| .981 | 4.290 | -4.95620 | 2066.60001 | .43508 | .43620 | .43470 | .43130 | .43340 | .43280 | .39820 | 751.72000 |
| .978 | 8.565 | -4.92630 | 2064.50000 | .42810 | .42860 | .43030 | .43130 | .42910 | .42890 | .41100 | 749.23000 |
| .980 | 10.701 | -4.91890 | 2063.79999 | .42860 | .42710 | .42910 | .42930 | .42890 | .42700 | .41780 | 749.69000 |
| .976 | 12.845 | -4.90830 | 2065.20001 | .42380 | .42250 | .42520 | .42780 | .42730 | .42680 | .42030 | 749.32000 |
| .978 | 15.002 | -4.92750 | 2065.89999 | .41720 | .42810 | .41660 | .41830 | .41660 | .41810 | .41870 | 749.48000 |
| .977 | 17.150 | -4.93310 | 2066.20001 | .41240 | .40960 | .41220 | .41060 | .40890 | .41120 | .41420 | 748.94000 |
| .980 | GRADIENT | -.00067 | -.00034 | .00022 | .00022 | .00050 | -.00062 | -.00012 | .00000 | .00631 | -.32062 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AIRCOR = 5.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN. NO. 180/ 0 RNAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1PSF1 |
|----------|--------|----------|------------|--------|--------|--------|---------|---------|--------|--------|-----------|
| 1.103 | .111 | -4.94150 | 2019.50000 | .33380 | .33350 | .33430 | .33430 | .33460 | .33410 | .33060 | 802.25000 |
| 1.102 | 4.300 | -4.95070 | 2019.50000 | .33440 | .33450 | .33450 | .33400 | .33390 | .33450 | .33230 | 801.57000 |
| 1.102 | 8.569 | -4.93290 | 2026.70000 | .32810 | .32846 | .32880 | .32780 | .32650 | .32770 | .33020 | 802.52000 |
| 1.098 | 10.725 | -4.91710 | 2020.00000 | .32770 | .32720 | .32680 | .32640 | .32650 | .32760 | .32820 | 801.07000 |
| 1.098 | 12.874 | -4.90850 | 2018.50000 | .32840 | .32810 | .32890 | .32770 | .32680 | .32760 | .32820 | 800.47000 |
| 1.102 | 15.052 | -4.93140 | 2018.50000 | .32450 | .32480 | .32490 | .32560 | .32530 | .32590 | .32700 | 801.84000 |
| 1.100 | 17.217 | -4.94280 | 2019.50000 | .32120 | .32070 | .32120 | .32070 | .32110 | .32110 | .32430 | 801.16000 |
| 1.100 | 21.938 | -4.96380 | 2045.70000 | .31120 | .31120 | .31190 | .31160 | .31100 | .31200 | .31930 | 799.66000 |
| GRADIENT | | -.00220 | -.19098 | .00014 | .00021 | .00007 | -.00007 | -.00017 | .00010 | .00041 | -.16232 |

RUN. NO. 184/ 0 RNAL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1PSF1 |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.198 | .112 | -4.98250 | 2017.10000 | .28040 | .28050 | .28050 | .28140 | .28098 | .28060 | .22970 | 837.89000 |
| 1.199 | 4.283 | -4.96810 | 2017.80000 | .28200 | .28210 | .28220 | .28180 | .28220 | .28130 | .25220 | 838.46000 |
| 1.201 | 8.561 | -4.98890 | 2017.80000 | .27600 | .27730 | .27800 | .27700 | .27730 | .27690 | .26270 | 839.04000 |
| 1.196 | 10.718 | -4.94000 | 2019.30000 | .27480 | .27400 | .27300 | .27430 | .27360 | .27470 | .26750 | 838.22000 |
| 1.195 | 12.876 | -4.94880 | 2018.50000 | .27110 | .27208 | .27200 | .27240 | .27248 | .27170 | .26950 | 837.65000 |
| 1.196 | 15.052 | -4.94560 | 2019.30000 | .26980 | .26960 | .26950 | .26870 | .26878 | .26880 | .26880 | 838.02000 |
| 1.196 | 17.214 | -4.94850 | 2018.30000 | .26430 | .26330 | .26370 | .26230 | .26300 | .26160 | .26580 | 837.82000 |
| 1.199 | 21.537 | -4.96620 | 2021.39999 | .26250 | .26280 | .26300 | .26250 | .26320 | .26310 | .26430 | 839.94000 |
| GRADIENT | | .00913 | .16783 | .00038 | .00041 | .00041 | .00010 | .00031 | .00017 | .00339 | .13907 |

RUN. NO. 180/ 0 RNAL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O1PSF1 |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.400 | .071 | -4.95010 | 2068.79999 | .18720 | .18700 | .18730 | .18700 | .18750 | .18750 | .18810 | 891.94000 |
| 1.400 | 4.232 | -4.96990 | 2067.39999 | .19000 | .19020 | .19020 | .18970 | .18980 | .19000 | .18920 | 891.32000 |
| 1.395 | 8.495 | -4.95200 | 2068.10000 | .19320 | .19350 | .19330 | .19310 | .19240 | .19260 | .19050 | 891.54000 |
| 1.397 | 10.642 | -4.95280 | 2068.79999 | .19080 | .19080 | .19090 | .19090 | .19048 | .19090 | .19090 | 891.87000 |
| 1.397 | 12.792 | -4.95330 | 2068.10000 | .18690 | .18650 | .18650 | .18690 | .18650 | .18670 | .18910 | 891.56000 |
| 1.397 | 14.958 | -4.94020 | 2068.79999 | .18620 | .18600 | .18630 | .18640 | .18600 | .18600 | .18600 | 891.87000 |
| 1.399 | 17.119 | -4.97920 | 2068.79999 | .18440 | .18410 | .18410 | .18470 | .18430 | .18390 | .18620 | 891.94000 |
| 1.400 | 21.459 | -4.98100 | 2068.79999 | .18240 | .18350 | .18340 | .18330 | .18330 | .18260 | .18460 | 891.94000 |
| GRADIENT | | -.00764 | -.33648 | .00067 | .00070 | .00070 | .00065 | .00056 | .00050 | .00022 | -.14901 |

TABULATED DATA - 0A161 (ARC 11-97-87-084)
ARC 11-97-87-894 0A161 ORBITER

(BESTREN) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = 5.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2680.000 SO.FT. XMRP = 1076.680 IN. X0
LREF = 474.800 IN. YMRP = .0000 IN. Y0
BREF = 936.680 IN. ZMRP = 375.0000 IN. Z0
SCALE = .03001

| MACH | ALPHA | BETA | PT | RUN NO. | 282/ 0 | RNAL = 4.21 | GRADIENT INTERVAL = -5.00x | 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|----------|------------|---------|--------|-------------|----------------------------|------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .596 | .089 | -1.83260 | 2628.89999 | | | | | | .75230 | .75230 | .75230 | .75190 | .75280 | .75230 | .74740 | 513.57000 |
| .596 | 4.180 | -1.84670 | 2629.60001 | | | | | | .75120 | .75120 | .75170 | .75160 | .75180 | .75200 | .74870 | 514.74000 |
| .595 | 8.344 | -1.83600 | 2629.60001 | | | | | | .75200 | .75200 | .75290 | .75200 | .75150 | .75200 | .74970 | 513.58000 |
| .595 | 10.455 | -1.83420 | 2629.60001 | | | | | | .75260 | .75260 | .75210 | .75230 | .75270 | .75200 | .75040 | 513.58000 |
| .595 | 12.574 | -1.82650 | 2629.60001 | | | | | | .75180 | .75180 | .75110 | .75190 | .75230 | .75130 | .75100 | 513.58000 |
| .597 | 14.668 | -1.79550 | 2629.60001 | | | | | | .74920 | .74920 | .74970 | .74920 | .74920 | .74850 | .74850 | 513.58000 |
| .596 | 16.805 | -1.86860 | 2629.60001 | | | | | | .74620 | .74620 | .74610 | .74620 | .74650 | .74650 | .74370 | 513.58000 |
| .594 | 21.066 | -1.85330 | 2629.60001 | | | | | | .73870 | .73870 | .73850 | .73860 | .73900 | .73900 | .74370 | 511.85000 |
| | GRADIENT | -.00345 | .17116 | | | | | | -.00027 | -.00027 | -.00020 | -.00007 | -.00024 | -.00007 | .00032 | .28505 |

| MACH | ALPHA | BETA | PT | RUN NO. | 199/ 0 | RNAL = 4.22 | GRADIENT INTERVAL = -5.00x | 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|----------|------------|---------|--------|-------------|----------------------------|------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .902 | .083 | -1.87890 | 2108.39999 | | | | | | .52300 | .52370 | .52240 | .52320 | .52420 | .52340 | .50840 | 788.43000 |
| .901 | 4.240 | -1.84550 | 2109.10001 | | | | | | .52640 | .52670 | .52710 | .52640 | .52670 | .52700 | .51660 | 787.67000 |
| .900 | 6.360 | -1.84440 | 2109.79999 | | | | | | .52660 | .52490 | .52620 | .52570 | .52730 | .52840 | .52070 | 707.74000 |
| .900 | 8.467 | -1.84860 | 2109.10001 | | | | | | .52530 | .52730 | .52830 | .52870 | .52700 | .52840 | .52420 | 707.25000 |
| .899 | 10.607 | -1.84200 | 2108.39999 | | | | | | .52560 | .52360 | .52360 | .52530 | .52310 | .52280 | .52420 | 706.33000 |
| .900 | 12.737 | -1.81980 | 2109.10001 | | | | | | .51900 | .51490 | .51680 | .51680 | .51510 | .51960 | .51460 | 707.29000 |
| .902 | 14.855 | -1.82930 | 2109.79999 | | | | | | .51000 | .51180 | .51050 | .50780 | .50750 | .50280 | .50920 | 706.57000 |
| .899 | 17.033 | -1.88650 | 2107.70001 | | | | | | .50130 | .50190 | .50280 | .50350 | .50300 | .50280 | .49370 | 705.41000 |
| .902 | 21.347 | -1.87380 | 2110.50000 | | | | | | .47340 | .47310 | .47400 | .47530 | .47410 | .47600 | .49370 | 709.46800 |
| | GRADIENT | .00803 | .16837 | | | | | | .00072 | .00072 | .00113 | .00077 | .00060 | .00087 | .00197 | .18280 |

| MACH | ALPHA | BETA | PT | RUN NO. | 192/ 0 | RNAL = 4.26 | GRADIENT INTERVAL = -5.00x | 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|----------|------------|---------|--------|-------------|----------------------------|------|--------|---------|--------|--------|--------|--------|--------|-----------|
| .990 | .065 | -1.84620 | 2066.60001 | | | | | | .43160 | .43310 | .43280 | .43190 | .43130 | .42970 | .42170 | 751.35000 |
| .980 | 4.284 | -1.85340 | 2065.20001 | | | | | | .43460 | .43260 | .43330 | .43310 | .43370 | .43530 | .42700 | 750.43000 |
| .979 | 8.541 | -1.84270 | 2067.39999 | | | | | | .43000 | .43050 | .42920 | .42730 | .42880 | .4270 | .42610 | 751.06000 |
| .978 | 10.686 | -1.82200 | 2065.20001 | | | | | | .42420 | .42510 | .42470 | .42670 | .42500 | .42770 | .42750 | 749.32000 |
| .979 | 12.842 | -1.81610 | 2065.60001 | | | | | | .41810 | .41830 | .41570 | .41560 | .41560 | .41610 | .42190 | 750.61000 |
| .979 | 14.977 | -1.84860 | 2065.89999 | | | | | | .41120 | .40970 | .41120 | .41110 | .41240 | .41650 | .41140 | 750.15000 |
| .978 | 17.179 | -1.89700 | 2065.89999 | | | | | | .40470 | .40520 | .40520 | .40550 | .40690 | .40540 | .41140 | 749.78000 |
| .980 | 21.506 | -1.87680 | 2068.10001 | | | | | | .39400 | .39310 | .39330 | .39440 | .39440 | .40330 | .40330 | 751.89000 |
| | GRADIENT | -.00514 | -.33342 | | | | | | .00071 | -.00012 | .00012 | .00029 | .00057 | .00133 | .00126 | -.21911 |

TABULATED DATA - OALB1 (ARC 11-97-87-094)
ARC 11-97-87-094 OALB1 ORBITER

(BE7R24) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = -0.00
AILRON = 5.000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6980 IN. X0
LREF = 474.8000 IN. YMRP = 0.0000 IN. Y6
SREF = 936.6800 IN. ZMRP = 375.5000 IN. Z0
SCALE = .0300

RUN NO. 1897 0 RNL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.102 | .086 | -1.87890 | 2017.80000 | .34040 | .34080 | .34020 | .34040 | .34060 | .34810 | .33490 | 801.44000 |
| 1.101 | 4.266 | -1.86210 | 2018.50000 | .33810 | .33850 | .33810 | .33830 | .33850 | .33890 | .33640 | 801.29000 |
| 1.101 | 8.559 | -1.83110 | 2020.00000 | .33370 | .33370 | .33370 | .33370 | .33370 | .33360 | .33510 | 801.56000 |
| 1.100 | 10.721 | -1.82340 | 2017.80000 | .33310 | .33330 | .33310 | .33310 | .33310 | .33302 | .33420 | 800.61000 |
| 1.101 | 12.874 | -1.80790 | 2019.30000 | .33010 | .33010 | .33010 | .33010 | .33010 | .33040 | .33210 | 801.43000 |
| 1.101 | 5.032 | -1.84810 | 2018.50000 | .32430 | .32430 | .32430 | .32430 | .32430 | .32470 | .32930 | 801.02000 |
| 1.101 | 17.257 | -1.89960 | 2019.30000 | .32070 | .32070 | .32070 | .32070 | .32070 | .32080 | .32530 | 801.16000 |
| 1.102 | 21.581 | -1.87880 | 2017.10001 | .31210 | .31210 | .31210 | .31210 | .31210 | .31200 | .31950 | 801.03000 |
| | | .00402 | .16750 | -.00055 | -.00055 | -.00050 | -.00050 | -.00055 | -.00038 | .00035 | -.03988 |

RUN NO. 1827 0 RNL = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|--------|---------|--------|--------|--------|--------|--------|-----------|
| 1.199 | .050 | -1.86720 | 2017.80000 | .28350 | .28420 | .28390 | .28390 | .28390 | .28320 | .27700 | 838.46000 |
| 1.196 | 4.238 | -1.85840 | 2016.39999 | .28400 | .28330 | .28300 | .28380 | .28350 | .28400 | .28030 | 836.92000 |
| 1.197 | 8.549 | -1.84430 | 2018.50000 | .27740 | .27710 | .27720 | .27750 | .27730 | .27740 | .27810 | 838.04000 |
| 1.196 | 10.719 | -1.81900 | 2017.10001 | .27600 | .27610 | .27560 | .27550 | .27560 | .27510 | .27670 | 837.09000 |
| 1.195 | 12.869 | -1.81410 | 2017.10001 | .27420 | .27360 | .27310 | .27340 | .27350 | .27370 | .27560 | 836.89000 |
| 1.196 | 19.026 | -1.85780 | 2017.10001 | .26860 | .26830 | .26820 | .26920 | .26830 | .26860 | .27220 | 837.29000 |
| 1.194 | 17.238 | -1.80250 | 2017.10001 | .26330 | .26330 | .26300 | .26280 | .26400 | .26480 | .26680 | 836.49000 |
| 1.198 | 21.573 | -1.87800 | 2020.70000 | .26180 | .26190 | .26200 | .26180 | .26070 | .26500 | .26500 | 839.37000 |
| | | .00193 | -.33273 | .00021 | -.00021 | .00021 | .00021 | .00014 | .00019 | .00073 | -.36501 |

RUN NO. 1797 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH. | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|--------|----------|------------|--------|---------|--------|--------|--------|--------|--------|-----------|
| 1.398 | .048 | -1.87750 | 2067.39999 | .19220 | .19240 | .19200 | .19240 | .19240 | .19210 | .18960 | 891.36000 |
| 1.398 | 4.207 | -1.84420 | 2066.10001 | .19370 | .19360 | .19370 | .19410 | .19410 | .19360 | .19480 | 891.61000 |
| 1.397 | 8.485 | -1.83000 | 2068.10001 | .19320 | .19340 | .19340 | .19270 | .19270 | .19270 | .19210 | 891.56000 |
| 1.400 | 10.647 | -1.83000 | 2068.10001 | .19180 | .19180 | .19180 | .19220 | .19190 | .19150 | .19190 | 891.68000 |
| 1.398 | 12.789 | -1.83570 | 2067.39999 | .19020 | .19050 | .18980 | .19000 | .18990 | .18950 | .19080 | 891.26000 |
| 1.399 | 14.983 | -1.85820 | 2068.10001 | .18860 | .18860 | .18860 | .18860 | .18840 | .18910 | .19530 | 891.61000 |
| 1.388 | 17.147 | -1.89520 | 2067.39999 | .18630 | .18630 | .18630 | .18630 | .18630 | .18660 | .18660 | 891.30000 |
| 1.403 | 21.488 | -1.88260 | 2068.79999 | .18130 | .18140 | .18140 | .18150 | .18130 | .18540 | .18540 | 891.94000 |
| | | -.00882 | .16827 | .00034 | -.00034 | .00041 | .06041 | .00017 | .00035 | .00053 | -.37452 |

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OF POOR QUALITY

(BETRES) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XORRP = 1075.6808 IN. XO
 LREF = 474.8000 IN. YMRP = .8000 IN. YO
 BREF = 956.6800 IN. ZMRP = 373.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AIRLON = 5.000 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF* |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .587 | .081 | .21610 | 2628.89998 | .75120 | .75220 | .75110 | .75190 | .75200 | .75190 | .74810 | 514.73000 |
| .586 | 4.182 | .21538 | 2628.89999 | .75230 | .75160 | .75280 | .75280 | .75180 | .75130 | .74940 | 513.50000 |
| .584 | 6.258 | .22160 | 2628.89999 | .75220 | .75280 | .75280 | .75290 | .75330 | .75290 | .75050 | 511.82000 |
| .595 | 8.342 | .23020 | 2629.60001 | .75310 | .75310 | .75350 | .75268 | .75300 | .75330 | .75180 | 513.58000 |
| .596 | 10.443 | .22440 | 2629.60001 | .75180 | .75170 | .75220 | .75290 | .75280 | .75240 | .75230 | 514.16000 |
| .595 | 12.541 | .22910 | 2629.60001 | .75300 | .75220 | .75290 | .75070 | .75000 | .75050 | .75110 | 514.16000 |
| .596 | 14.659 | .23520 | 2629.60001 | .75090 | .75070 | .74990 | .74980 | .74950 | .74960 | .74960 | 513.91000 |
| .597 | 16.778 | .24710 | 2629.60001 | .74820 | .74820 | .73980 | .73980 | .74000 | .74000 | .74470 | 515.34000 |
| .597 | 21.025 | .21680 | 2631.00000 | .75990 | .73960 | .72580 | .72890 | .72800 | .73680 | .75680 | 514.13000 |
| .596 | 25.193 | .21060 | 2631.00000 | .72770 | .72790 | .72580 | .72890 | .72800 | .72800 | .75680 | 514.13000 |
| | GRADIENT | .000820 | .00087 | .00015 | .00082 | .00082 | .00082 | .00005 | .00015 | .00032 | .26284 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF* |
|------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .901 | .045 | .19580 | 2107.70001 | .52530 | .52498 | .52510 | .52520 | .52530 | .52530 | .51430 | 707.12000 |
| .900 | 4.243 | .21950 | 2107.70001 | .52730 | .52780 | .52800 | .52860 | .52830 | .52820 | .52068 | 706.27000 |
| .899 | 6.350 | .22160 | 2108.10001 | .52880 | .52770 | .52730 | .52670 | .52838 | .52860 | .52370 | 706.40000 |
| .900 | 8.474 | .22940 | 2108.79999 | .52760 | .52586 | .52840 | .52640 | .52830 | .52820 | .52460 | 707.32000 |
| .900 | 10.602 | .22600 | 2109.39999 | .52160 | .52352 | .52170 | .52060 | .52230 | .52190 | .52400 | 707.19000 |
| .899 | 12.722 | .23940 | 2109.79999 | .51800 | .51610 | .51800 | .51630 | .51390 | .51500 | .51960 | 705.64000 |
| .904 | 14.869 | .23070 | 2109.79999 | .51180 | .51028 | .51030 | .50880 | .50770 | .51480 | .51480 | 705.16000 |
| .902 | 17.018 | .23070 | 2109.79999 | .50110 | .50420 | .50400 | .50240 | .50150 | .50190 | .50970 | 705.22000 |
| .902 | 21.282 | .22576 | 2109.10001 | .47540 | .47810 | .47740 | .47920 | .48050 | .48020 | .49584 | 703.50000 |
| .902 | 25.480 | .20738 | 2109.10001 | .44820 | .44720 | .44810 | .44890 | .45120 | .45090 | .47530 | 703.94000 |
| | GRADIENT | .00585 | .00001 | .00048 | .00058 | .00058 | .00081 | .00085 | .00058 | .00150 | .20246 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF* |
|------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .978 | .055 | .22230 | 2066.89999 | .43940 | .43430 | .43490 | .43250 | .43380 | .43230 | .42330 | 749.78000 |
| .980 | 4.275 | .21180 | 2064.50000 | .43550 | .43640 | .43720 | .43670 | .43580 | .43470 | .42710 | 750.35000 |
| .977 | 8.551 | .23980 | 2064.60001 | .42636 | .42880 | .42710 | .42650 | .42690 | .42530 | .42830 | 750.98000 |
| .978 | 10.707 | .22530 | 2064.50000 | .42590 | .42830 | .42870 | .42710 | .42630 | .42390 | .42320 | 749.48000 |
| .979 | 12.850 | .24430 | 2065.99999 | .41860 | .42190 | .42480 | .42560 | .42770 | .42480 | .42550 | 749.78000 |
| .978 | 15.001 | .24430 | 2065.99999 | .40970 | .41160 | .41120 | .41360 | .41450 | .41910 | .41950 | 749.69000 |
| .979 | 17.157 | .22750 | 2065.20001 | .40430 | .40660 | .40990 | .40870 | .40520 | .40330 | .41298 | 749.78000 |
| .981 | 21.454 | .20510 | 2068.79999 | .39450 | .39450 | .39400 | .39410 | .39450 | .39461 | .40436 | 752.78000 |
| | GRADIENT | .00249 | .33170 | .00050 | .00050 | .00050 | .00100 | .00050 | .00057 | .00090 | .13526 |

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(BETRES) (02 AUG 76)

TABLATED DATA - 0A161 (ARC-11-87-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 90.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = .000 ELEVON = .000
%ILRON = 9.008 BDFLAP = -7.170

PARAMETRIC DATA

RUN NO. 188/ 0; RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1/PS1 |
|-------|----------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.100 | .050 | .20720 | 2016.39999 | .34250 | .34260 | .34270 | .34280 | .34290 | .34300 | .34310 | 732.80000 |
| 1.102 | 4.282 | .21750 | 2017.80000 | .34080 | .34070 | .34150 | .34090 | .34150 | .34080 | .33780 | 803.15000 |
| 1.101 | 8.569 | .23870 | 2028.00000 | .33710 | .33690 | .33710 | .33710 | .33710 | .33680 | .33720 | 801.95000 |
| 1.101 | 10.728 | .25080 | 2017.10000 | .33450 | .33470 | .33520 | .33520 | .33510 | .33470 | .33540 | 800.48000 |
| 1.101 | 12.881 | .23050 | 2018.50000 | .33190 | .33250 | .33180 | .33200 | .33180 | .33110 | .33460 | 801.02000 |
| 1.100 | 19.058 | .25400 | 2018.50000 | .32450 | .32470 | .32490 | .32470 | .32480 | .32480 | .33850 | 800.75000 |
| 1.099 | 17.257 | .22640 | 2017.80000 | .32210 | .32310 | .32270 | .32270 | .32270 | .32240 | .32650 | 800.35000 |
| 1.101 | 21.529 | .21840 | 2017.10000 | .31480 | .31420 | .31440 | .31440 | .31400 | .31340 | .32090 | 800.48000 |
| | GRADIENT | .00243 | .33877 | -.00043 | -.00038 | -.00045 | -.00038 | -.00028 | -.00038 | .00059 | .32132 |

RUN NO. 183/ 0; RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1/PS1 |
|-------|----------|--------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.196 | .044 | .17740 | 2017.10000 | .28540 | .28540 | .28590 | .28580 | .28520 | .28520 | .27870 | 837.29000 |
| 1.199 | 4.267 | .21430 | 2017.10000 | .28350 | .28350 | .28410 | .28410 | .28320 | .28320 | .28080 | 838.08000 |
| 1.197 | 8.508 | .21910 | 2015.70000 | .28150 | .28150 | .28120 | .28120 | .28270 | .28190 | .28050 | 836.94000 |
| 1.194 | 8.563 | .23870 | 2019.30000 | .27990 | .27920 | .27990 | .27990 | .27920 | .27950 | .27990 | 837.42000 |
| 1.196 | 10.737 | .23440 | 2019.30000 | .27710 | .27710 | .27730 | .27730 | .27760 | .27730 | .27890 | 838.28000 |
| 1.199 | 12.881 | .22600 | 2017.10000 | .27450 | .27390 | .27450 | .27520 | .27530 | .27571 | .27800 | 838.08000 |
| 1.199 | 15.052 | .23700 | 2017.80000 | .26800 | .26800 | .26830 | .26830 | .26760 | .26800 | .27330 | 837.27000 |
| 1.195 | 17.217 | .22760 | 2018.39999 | .26530 | .26530 | .26530 | .26530 | .26420 | .26420 | .26910 | 836.52000 |
| 1.199 | 21.523 | .21510 | 2020.70000 | .26190 | .26190 | .26190 | .26190 | .26200 | .26200 | .26560 | 839.56000 |
| 1.200 | 25.749 | .22870 | 2016.39999 | .24910 | .24910 | .24970 | .25030 | .25030 | .25210 | .26050 | 839.10000 |
| | GRADIENT | .00874 | .00000 | -.00045 | -.00043 | -.00043 | -.00033 | -.00047 | -.00047 | .00054 | .18709 |

RUN NO. 178/ 0; RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1/PS1 |
|-------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.400 | .011 | .16370 | 2068.79999 | .19420 | .19410 | .19490 | .19520 | .19450 | .19500 | .19310 | 891.92000 |
| 1.400 | 2.105 | .21690 | 2068.10000 | .19650 | .19610 | .19680 | .19620 | .19600 | .19630 | .19480 | 891.52000 |
| 1.399 | 4.215 | .19430 | 2055.60000 | .19770 | .19770 | .19790 | .19870 | .19810 | .19800 | .19540 | 890.99000 |
| 1.396 | 8.344 | .23960 | 2057.39999 | .19650 | .19650 | .19700 | .19690 | .19630 | .19630 | .19710 | 891.23000 |
| 1.399 | 10.650 | .23290 | 2068.10000 | .19450 | .19450 | .19490 | .19430 | .19460 | .19450 | .19600 | 891.58000 |
| 1.399 | 12.884 | .24140 | 2057.39999 | .19360 | .19360 | .19410 | .19420 | .19390 | .19380 | .19500 | 891.23000 |
| 1.399 | 14.965 | .22670 | 2068.10000 | .19150 | .19150 | .19140 | .19170 | .19130 | .19160 | .19340 | 891.58000 |
| 1.399 | 17.135 | .23270 | 2058.10000 | .18990 | .18990 | .18930 | .18950 | .18900 | .18960 | .19170 | 891.27000 |
| 1.399 | 21.439 | .20130 | 2068.10000 | .18620 | .18620 | .18640 | .18650 | .18640 | .18640 | .18240 | 891.59000 |
| 1.400 | 25.730 | .21950 | 2058.10000 | .18230 | .18230 | .18230 | .18190 | .18190 | .18220 | .18570 | 891.51000 |
| | GRADIENT | .00726 | -.52346 | .00086 | .00086 | .00071 | .00086 | .00086 | .00071 | .00078 | -.22128 |

(BETR26) 1 02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITTER

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1078.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 A.LRDM = 9.000 BDELAP = -7.170

RUN NO. 204/ 0 RNL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|----------|---------|------------|--------|---------|---------|---------|---------|---------|--------|-----------|
| .597 | .094 | 2.27248 | 2625.89989 | .75070 | .75180 | .75140 | .75160 | .75200 | .75170 | .74640 | 514.73000 |
| .594 | 4.195 | 2.31430 | 2623.60001 | .75230 | .75060 | .75120 | .75110 | .75130 | .75110 | .74790 | 511.83000 |
| .597 | 8.367 | 2.32650 | 2630.29999 | .75210 | .75190 | .75190 | .75150 | .75190 | .75150 | .74920 | 515.82000 |
| .596 | 10.475 | 2.33890 | 2631.00000 | .75130 | .75130 | .75180 | .75200 | .75190 | .75210 | .74950 | 514.77000 |
| .595 | 12.630 | 2.32900 | 2631.00000 | .75100 | .75170 | .75080 | .75170 | .75050 | .75090 | .75010 | 513.61000 |
| .595 | 14.764 | 2.31350 | 2631.00000 | .75170 | .75090 | .75090 | .75150 | .74870 | .75060 | .75050 | 513.22000 |
| .595 | 16.908 | 2.31320 | 2631.00000 | .74850 | .74950 | .74980 | .74850 | .74870 | .74830 | .74880 | 514.15000 |
| .597 | 21.123 | 2.25940 | 2632.50000 | .73920 | .73950 | .73920 | .74050 | .74090 | .74130 | .74450 | 516.54000 |
| | GRADIENT | .01022 | .17068 | .00039 | -.00029 | -.00005 | -.00012 | -.00017 | -.00015 | .00037 | -.70707 |

RUN NO. 197/ 0 RNL = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .901 | .039 | 2.30330 | 2108.39989 | .52400 | .52360 | .52470 | .52420 | .52410 | .52490 | .51600 | 707.60000 |
| .901 | 4.255 | 2.32210 | 2105.50000 | .52630 | .52710 | .52650 | .52680 | .52650 | .52660 | .52070 | 706.50000 |
| .901 | 6.372 | 2.32720 | 2107.70001 | .52700 | .52610 | .52730 | .52680 | .52630 | .52700 | .52250 | 705.84000 |
| .901 | 8.499 | 2.32180 | 2110.50000 | .52450 | .52190 | .52290 | .52330 | .52160 | .52490 | .52290 | 708.64000 |
| .900 | 10.626 | 2.33330 | 2107.70001 | .51870 | .52080 | .52040 | .51940 | .52160 | .51140 | .52300 | 706.70000 |
| .899 | 12.792 | 2.31500 | 2107.70001 | .51340 | .51410 | .51440 | .51360 | .51200 | .51140 | .51760 | 705.84000 |
| .903 | 14.954 | 2.33790 | 2111.20001 | .50290 | .50250 | .50290 | .50240 | .50240 | .50580 | .51170 | 710.36000 |
| .903 | 17.131 | 2.34790 | 2107.70001 | .49690 | .49570 | .49710 | .49660 | .49710 | .49920 | .50580 | 706.70000 |
| .902 | 21.382 | 2.33270 | 2110.50000 | .47230 | .47210 | .47390 | .47190 | .47110 | .47230 | .49030 | 709.05000 |
| | GRADIENT | .00446 | -.68788 | .00055 | .00083 | .00043 | .00062 | .00057 | .00040 | .00111 | -.26092 |

RUN NO. 194/ 0 RNL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|------|----------|---------|------------|--------|---------|---------|--------|---------|---------|--------|-----------|
| .990 | .070 | 2.28270 | 2065.60001 | .43280 | .43220 | .43310 | .43240 | .43350 | .43440 | .42350 | 750.98000 |
| .980 | 4.289 | 2.32380 | 2064.50000 | .43470 | .43110 | .43170 | .43280 | .43300 | .43200 | .42710 | 750.35000 |
| .979 | 8.575 | 2.33290 | 2067.39999 | .42810 | .43010 | .42910 | .42800 | .42810 | .42610 | .42720 | 751.06000 |
| .978 | 10.734 | 2.32230 | 2065.89999 | .42230 | .42180 | .42590 | .42890 | .42880 | .42880 | .42740 | 749.78000 |
| .978 | 12.899 | 2.29560 | 2065.89999 | .42740 | .42548 | .42750 | .42370 | .42280 | .42170 | .42530 | 749.40000 |
| .979 | 15.055 | 2.34490 | 2066.60001 | .41130 | .40780 | .41110 | .41170 | .41190 | .41250 | .42040 | 750.25000 |
| .979 | 17.268 | 2.34840 | 2065.89988 | .41260 | .41260 | .41210 | .41270 | .41330 | .41250 | .41730 | 750.52000 |
| .991 | 21.548 | 2.31950 | 2068.79999 | .39760 | .39630 | .39680 | .39720 | .39760 | .39800 | .40850 | 752.35000 |
| | GRADIENT | .00974 | -.49786 | .00055 | -.00026 | -.00033 | .00009 | -.00014 | -.00057 | .00078 | -.14936 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

(02 AUG 75)

REFERENCE DATA

SREF = 2690.000 SO.FT. XMRP = 1076.8800 IN. XO
 LREF = 474.8000 IN. YMRP = .0900 IN. YO
 BREF = 986.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 ALLRON = 5.000 BDELAP = -7.170

PARAMETRIC DATA

RUN NO. 1877 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF1 |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|--------|-----------|
| 1.102 | .052 | 2.29870 | 2017.10001 | .34140 | .34050 | .34100 | .34110 | .34110 | .34110 | 801.33000 |
| 1.102 | 4.292 | 2.31970 | 2017.80000 | .33960 | .33970 | .33970 | .33960 | .33940 | .33590 | 801.16020 |
| 1.100 | 8.588 | 2.32200 | 2019.30000 | .33430 | .33380 | .33380 | .33350 | .33350 | .33470 | 800.66000 |
| 1.099 | 10.751 | 2.32970 | 2017.10001 | .33320 | .33240 | .33330 | .33280 | .33300 | .33390 | 700.65000 |
| 1.101 | 12.933 | 2.30450 | 2020.00000 | .33100 | .33040 | .33090 | .33090 | .33030 | .33180 | 901.56000 |
| 1.099 | 15.113 | 2.35000 | 2017.10001 | .32850 | .32930 | .32910 | .32850 | .32890 | .33070 | 759.37000 |
| 1.099 | 17.347 | 2.35860 | 2019.30000 | .32440 | .32490 | .32530 | .32480 | .32600 | .32680 | 800.50000 |
| 1.102 | 21.636 | 2.36620 | 2022.10001 | .31040 | .30990 | .30980 | .31030 | .30950 | .32050 | 803.56000 |
| | GRADIENT | .00613 | .16508 | -.00042 | -.00021 | -.00031 | -.00035 | -.00040 | .00080 | .03066 |

RUN NO. 1847 0 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF1 |
|-------|----------|---------|------------|---------|---------|--------|---------|--------|--------|-----------|
| 1.197 | .053 | 2.28560 | 2017.10001 | .28090 | .28070 | .28140 | .28160 | .28120 | .27520 | 837.49000 |
| 1.198 | 4.280 | 2.30340 | 2016.39999 | .28070 | .29120 | .28170 | .28060 | .28190 | .27790 | 937.71000 |
| 1.198 | 8.590 | 2.32930 | 2017.80000 | .27960 | .27980 | .27990 | .27930 | .27870 | .27850 | 938.26000 |
| 1.198 | 10.753 | 2.33290 | 2018.50000 | .27590 | .27530 | .27530 | .27470 | .27490 | .27650 | 838.44000 |
| 1.191 | 12.934 | 2.30600 | 2017.80000 | .27430 | .27360 | .27460 | .27430 | .27040 | .27550 | 835.66000 |
| 1.199 | 15.101 | 2.36320 | 2017.80000 | .26860 | .26750 | .26890 | .26860 | .27040 | .27330 | 838.46000 |
| 1.193 | 17.328 | 2.36610 | 2017.10001 | .26700 | .26750 | .26720 | .26590 | .26730 | .27070 | 836.29000 |
| 1.200 | 21.614 | 2.33560 | 2021.39999 | .26160 | .26150 | .26180 | .26310 | .26280 | .26720 | 640.33000 |
| | GRADIENT | .00413 | -.16602 | -.00026 | -.00012 | .00019 | -.00028 | .00017 | .00064 | .05218 |

RUN NO. 1777 0 RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF1 |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|-----------|
| 1.400 | .016 | 2.33780 | 2057.39999 | .19230 | .19250 | .19220 | .19230 | .19250 | .19650 | 887.05000 |
| 1.399 | 4.226 | 2.33030 | 2056.70001 | .19430 | .19390 | .19430 | .19430 | .19490 | .19590 | 886.73000 |
| 1.397 | 8.517 | 2.31880 | 2058.20001 | .19270 | .19260 | .19250 | .19210 | .19230 | .19450 | 887.28000 |
| 1.397 | 10.674 | 2.33760 | 2057.39999 | .19020 | .19040 | .19010 | .19040 | .19030 | .19250 | 886.99000 |
| 1.399 | 12.850 | 2.29000 | 2058.20001 | .18870 | .18830 | .18830 | .18840 | .18830 | .19150 | 637.30000 |
| 1.399 | 15.014 | 2.35080 | 2058.20001 | .18990 | .18950 | .19020 | .19010 | .19010 | .19110 | 887.36000 |
| 1.399 | 17.236 | 2.36490 | 2057.39999 | .18780 | .18600 | .18780 | .18730 | .18760 | .18990 | 887.20000 |
| 1.399 | 21.521 | 2.29320 | 2058.89999 | .18550 | .18500 | .18530 | .18590 | .18560 | .18940 | 287.64000 |
| | GRADIENT | -.00181 | -.16628 | .00048 | .00029 | .00050 | .00057 | .00057 | .00010 | -.07601 |

0000110
0000110

TABULATED DATA - OA161 (ARC 11-97-87-89%)

ARC 11-97-87-89% OA161 ORBITER

(BE7R27) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AFLRON = 5.000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2880.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0800 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | RUN NO. | 2054 0 | RN/L = 4.23 | GRADIENT INTERVAL = -5.00% | 5.00% | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|---------|--------|-------------|----------------------------|-------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .597 | 1.06 | 5.36240 | 2629.60001 | | | | | | 74990 | 75030 | 74960 | 74990 | 74950 | 75020 | 74880 | 515.32000 |
| .596 | 4.212 | 5.39310 | 2629.50001 | | | | | | 75030 | 75070 | 74960 | 75010 | 75020 | 75010 | 74980 | 514.74000 |
| .596 | 8.392 | 5.40360 | 2630.29999 | | | | | | 75070 | 75088 | 75130 | 74970 | 75030 | 75060 | 74920 | 514.17000 |
| .595 | 10.514 | 5.39370 | 2630.29998 | | | | | | 75070 | 75058 | 75110 | 75050 | 75110 | 75160 | 75030 | 513.99000 |
| .597 | 12.639 | 5.39410 | 2631.00000 | | | | | | 75110 | 75020 | 75180 | 75340 | 75228 | 75130 | 75010 | 513.95000 |
| .594 | 14.761 | 5.38790 | 2631.00000 | | | | | | 74970 | 75090 | 74980 | 74930 | 74930 | 74990 | 74980 | 511.86000 |
| .596 | 16.871 | 5.38530 | 2631.00000 | | | | | | 74810 | 74940 | 74910 | 74910 | 74840 | 74740 | 74830 | 514.19000 |
| .596 | 21.085 | 5.39700 | 2631.00000 | | | | | | 74360 | 74120 | 74200 | 74300 | 74280 | 74300 | 74558 | 514.19000 |
| | GRADIENT | .00748 | .00000 | | | | | | .00010 | .00010 | .00012 | .00005 | .00017 | .00002 | .00005 | -.14124 |

| MACH | ALPHA | BETA | PT | RUN NO. | 1967 0 | RN/L = 4.22 | GRADIENT INTERVAL = -5.00% | 5.00% | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|---------|--------|-------------|----------------------------|-------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .899 | .067 | 5.37970 | 2104.79998 | | | | | | 52240 | 52400 | 52230 | 52260 | 52030 | 52150 | 46800 | 705.17000 |
| .902 | 4.268 | 5.41980 | 2108.79999 | | | | | | 52310 | 52440 | 52380 | 52330 | 52390 | 52380 | 48660 | 706.77000 |
| .902 | 6.388 | 5.42400 | 2109.79999 | | | | | | 52130 | 52190 | 52310 | 52410 | 52310 | 52360 | 50150 | 708.57000 |
| .899 | 8.512 | 5.41980 | 2107.00000 | | | | | | 52240 | 52650 | 52590 | 52660 | 52600 | 52350 | 51140 | 705.35000 |
| .901 | 10.666 | 5.40980 | 2109.79999 | | | | | | 51610 | 51590 | 51750 | 51890 | 51810 | 51860 | 51370 | 708.15000 |
| .900 | 12.794 | 5.41250 | 2109.79999 | | | | | | 51620 | 51620 | 51940 | 51660 | 51550 | 51520 | 51490 | 707.74000 |
| .899 | 14.931 | 5.43420 | 2108.79999 | | | | | | 51010 | 51210 | 51110 | 51330 | 51480 | 51270 | 51270 | 706.33000 |
| .900 | 17.065 | 5.45160 | 2108.79999 | | | | | | 50450 | 50390 | 50250 | 50420 | 50360 | 50320 | 50920 | 706.77000 |
| .902 | 21.363 | 5.46300 | 2111.89999 | | | | | | 48140 | 48010 | 48140 | 47990 | 47840 | 49510 | 49510 | 709.69000 |
| | GRADIENT | .00935 | .85683 | | | | | | .00017 | .00010 | .00036 | .00017 | .00036 | .00036 | .00533 | .38082 |

| MACH | ALPHA | BETA | PT | RUN NO. | 1957 0 | RN/L = 4.26 | GRADIENT INTERVAL = -5.00% | 5.00% | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|---------|--------|-------------|----------------------------|-------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .979 | .080 | 5.38970 | 2067.39999 | | | | | | 43040 | 42900 | 42900 | 42910 | 43110 | 43060 | 42920 | 751.06000 |
| .980 | 4.301 | 5.41590 | 2064.50000 | | | | | | 43300 | 43150 | 43030 | 42800 | 42870 | 42870 | 42870 | 750.38000 |
| .977 | 6.588 | 5.41610 | 2065.88899 | | | | | | 42860 | 42880 | 43230 | 43240 | 43290 | 42980 | 42980 | 748.65000 |
| .977 | 10.757 | 5.39530 | 2067.39999 | | | | | | 42760 | 42820 | 42740 | 43160 | 43230 | 42990 | 42980 | 749.20000 |
| .976 | 12.894 | 5.39730 | 2066.89999 | | | | | | 43150 | 43080 | 42740 | 42830 | 43100 | 42950 | 42900 | 749.78000 |
| .977 | 15.044 | 5.40750 | 2066.89999 | | | | | | 42780 | 42780 | 42690 | 42570 | 42690 | 42870 | 42870 | 748.65000 |
| .981 | 17.205 | 5.44360 | 2065.89999 | | | | | | 41660 | 41920 | 41810 | 41380 | 41510 | 41390 | 42260 | 751.63000 |
| .981 | 21.515 | 5.45000 | 2068.79999 | | | | | | 39800 | 39570 | 39520 | 39600 | 39720 | 39750 | 41140 | 752.35000 |
| | GRADIENT | .00611 | .68696 | | | | | | .00062 | .00059 | .00031 | .00026 | .00057 | .00000 | .00083 | -.16849 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

(BE7REZ) (02 AUG 78)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = 5.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6880 IN. X0
LREF = 474.8008 IN. YMRP = .0000 IN. Y0
BREF = 939.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 01PSF1 |
|-------|----------|---------|------------|---------|---------|--------|---------|--------|--------|--------|-----------|
| 1.098 | .083 | 5.37020 | 2015.70000 | .33469 | .33410 | .33400 | .33390 | .33280 | .33240 | .29940 | 798.83000 |
| 1.108 | 4.314 | 5.41680 | 2017.88000 | .33410 | .33340 | .33340 | .33370 | .33380 | .33400 | .31430 | 800.61000 |
| 1.099 | 8.610 | 5.41360 | 2020.08000 | .32980 | .32880 | .32880 | .32800 | .32890 | .32760 | .32030 | 801.01000 |
| 1.093 | 10.783 | 5.39050 | 2016.38999 | .32930 | .32950 | .32950 | .32750 | .32790 | .32850 | .32330 | 799.52000 |
| 1.098 | 12.932 | 5.39370 | 2016.38999 | .33210 | .33170 | .33080 | .33080 | .33090 | .32990 | .32670 | 798.97000 |
| 1.099 | 15.092 | 5.41380 | 2017.10001 | .32950 | .32970 | .32870 | .33030 | .33060 | .33100 | .32810 | 799.65000 |
| 1.099 | 17.254 | 5.44880 | 2015.08000 | .33310 | .33270 | .33260 | .33340 | .33290 | .33290 | .32990 | 798.98000 |
| 1.102 | 21.578 | 5.47280 | 2016.50000 | .30820 | .30900 | .30950 | .30990 | .30980 | .30810 | .32020 | 801.88000 |
| | GRADIENT | .01104 | .49630 | -.00012 | -.00017 | .00009 | -.00005 | .00024 | .00038 | .00352 | .42068 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 01PSF1 |
|-------|----------|---------|------------|--------|---------|--------|--------|--------|--------|--------|-----------|
| 1.200 | .078 | 5.40340 | 2017.10001 | .27760 | .27880 | .27720 | .27580 | .27590 | .27630 | .27430 | 839.47000 |
| 1.198 | 4.301 | 5.42170 | 2016.38999 | .28800 | .28100 | .28230 | .28230 | .28220 | .28068 | .27750 | 837.51000 |
| 1.193 | 8.607 | 5.41880 | 2017.10001 | .27930 | .27750 | .27760 | .27770 | .27890 | .27870 | .27810 | 836.29000 |
| 1.198 | 10.779 | 5.40390 | 2017.80000 | .27700 | .27500 | .27370 | .27390 | .27290 | .27300 | .27540 | 837.27000 |
| 1.196 | 12.950 | 5.41420 | 2017.80000 | .27700 | .27520 | .27490 | .27470 | .27550 | .27600 | .27620 | 837.67000 |
| 1.195 | 15.193 | 5.42960 | 2017.10001 | .27670 | .27590 | .27590 | .27510 | .27450 | .27580 | .27580 | 836.89000 |
| 1.195 | 17.256 | 5.47470 | 2017.80000 | .27150 | .27050 | .27120 | .27030 | .27080 | .27030 | .27290 | 837.27000 |
| 1.198 | 21.571 | 5.48560 | 2020.70000 | .26070 | .25940 | .25980 | .26870 | .26008 | .26140 | .26810 | 839.56000 |
| | GRADIENT | .00433 | -.16674 | .00062 | -.00062 | .00121 | .00168 | .00149 | .00107 | .00076 | -.22730 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 01PSF1 |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| 1.402 | .051 | 5.40900 | 2058.20001 | .18980 | .18950 | .18670 | .18970 | .18930 | .18970 | .68130 | 887.38000 |
| 1.400 | 4.255 | 5.43230 | 2058.78001 | .19190 | .19120 | .19170 | .19160 | .19160 | .19160 | .47300 | 886.74000 |
| 1.397 | 8.549 | 5.43520 | 2059.60001 | .19010 | .19000 | .19000 | .18980 | .19000 | .19010 | .35080 | 887.91000 |
| 1.397 | 10.719 | 5.40490 | 2058.88999 | .18980 | .18990 | .18970 | .18990 | .18950 | .18960 | .28180 | 887.59000 |
| 1.397 | 12.864 | 5.41250 | 2058.88999 | .19080 | .19060 | .19040 | .19110 | .19110 | .19060 | .24310 | 887.59000 |
| 1.401 | 15.081 | 5.43800 | 2058.88999 | .18820 | .18810 | .18820 | .18830 | .18830 | .18830 | .22020 | 887.67000 |
| 1.398 | 17.174 | 5.48320 | 2058.88999 | .18270 | .18270 | .18260 | .18280 | .18250 | .18280 | .20690 | 887.63000 |
| 1.399 | 21.487 | 5.50190 | 2059.60001 | .08050 | .08040 | .08071 | .08059 | .08055 | .08045 | .19740 | 887.94000 |
| | GRADIENT | .00534 | -.35681 | .00050 | .00040 | .00071 | .00059 | .00055 | .00045 | -.04956 | -.15223 |

(BETR281 (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-894)

ARC 11-97-87-894 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 939.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A FLRON = 7.500 BOFLAP = -7.170

RUN NO. 2104 0 RN/L = 4.21 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P11/PT | P12/PT | P13/PT | P14/PT | P15/PT | P16/PT | P17/PT | O(PSF) |
|------|----------|----------|------------|---------|---------|---------|--------|---------|--------|--------|-----------|
| .596 | .141 | -4.90680 | 2591.39999 | .75040 | .75030 | .75090 | .75010 | .75030 | .74950 | .74700 | 506.47000 |
| .596 | 4.208 | -4.92740 | 2592.10001 | .74940 | .74940 | .75010 | .75010 | .75030 | .75000 | .74830 | 507.07000 |
| .596 | 8.370 | -4.90310 | 2592.89999 | .75050 | .74980 | .75000 | .75030 | .75000 | .74990 | .74910 | 506.49000 |
| .596 | 10.480 | -4.88820 | 2592.89998 | .75040 | .75040 | .75080 | .75110 | .75000 | .74930 | .74950 | 506.49000 |
| .596 | 12.588 | -4.85830 | 2592.89998 | .74780 | .74830 | .74870 | .74840 | .74850 | .74590 | .74850 | 507.66000 |
| .597 | 14.684 | -4.85330 | 2592.89998 | .74580 | .74550 | .74450 | .74420 | .74350 | .74330 | .74600 | 507.08000 |
| .596 | 16.775 | -4.88490 | 2592.89998 | .73870 | .73840 | .73960 | .73850 | .73850 | .73860 | .74340 | 509.40000 |
| .598 | 21.015 | -4.88240 | 2592.89998 | .73840 | .73840 | .73960 | .73850 | .73850 | .73860 | .74340 | 509.40000 |
| | GRADIENT | | .17228 | -.00012 | -.00022 | -.00028 | .00000 | -.00015 | .00012 | .00032 | .14766 |

RUN NO. 2111 0 RN/L = 4.24 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P11/PT | P12/PT | P13/PT | P14/PT | P15/PT | P16/PT | P17/PT | O(PSF) |
|------|----------|----------|------------|--------|---------|---------|---------|---------|--------|---------|-----------|
| .901 | .124 | -4.95580 | 2126.10001 | .52170 | .52250 | .52260 | .52170 | .52170 | .52890 | .74150 | 713.43000 |
| .901 | 4.286 | -4.93750 | 2127.50000 | .52340 | .52290 | .52180 | .52140 | .52070 | .52090 | .64660 | 713.98000 |
| .903 | 6.516 | -4.94070 | 2128.89999 | .52350 | .52190 | .52390 | .52320 | .52100 | .52100 | .59880 | 714.53000 |
| .897 | 8.516 | -4.93050 | 2129.60001 | .51960 | .52080 | .52470 | .52270 | .52270 | .52390 | .56300 | 716.67000 |
| .900 | 10.651 | -4.91060 | 2130.29999 | .52310 | .52270 | .52170 | .52120 | .51980 | .51980 | .50760 | 712.09000 |
| .900 | 12.784 | -4.92360 | 2136.70001 | .51430 | .51420 | .51440 | .51460 | .51280 | .51320 | .51820 | 716.09000 |
| .900 | 14.897 | -4.92260 | 2135.20001 | .50910 | .51000 | .51020 | .50930 | .50970 | .50980 | .51410 | 715.96000 |
| .900 | 17.032 | -4.93260 | 2134.50000 | .50020 | .49820 | .49920 | .50050 | .50130 | .50030 | .50770 | 715.47000 |
| .898 | 21.320 | -4.96930 | 2133.79999 | .47870 | .48010 | .47960 | .47960 | .48050 | .48140 | .49650 | 713.69000 |
| | GRADIENT | | .33670 | .00041 | -.00002 | -.00019 | -.00007 | -.00024 | .00000 | -.02285 | .13228 |

RUN NO. 2211 0 RN/L = 4.27 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P11/PT | P12/PT | P13/PT | P14/PT | P15/PT | P16/PT | P17/PT | O(PSF) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.198 | .115 | -4.98300 | 2046.10001 | .28960 | .28170 | .28120 | .28130 | .28170 | .28290 | .22950 | 849.92000 |
| 1.203 | 4.280 | -4.95050 | 2066.30000 | .27940 | .27840 | .27900 | .27940 | .27940 | .27940 | .25250 | 843.13000 |
| 1.198 | 8.571 | -4.94330 | 2080.70000 | .27900 | .27900 | .27470 | .27440 | .27490 | .27530 | .26850 | 839.17000 |
| 1.207 | 10.725 | -4.92960 | 2019.30000 | .26930 | .26940 | .26980 | .26980 | .26870 | .26950 | .26880 | 839.40000 |
| 1.196 | 12.885 | -4.92530 | 2019.30000 | .26980 | .26870 | .26840 | .26900 | .26870 | .26880 | .26950 | 839.20000 |
| 1.193 | 15.041 | -4.93890 | 2019.30000 | .26400 | .26400 | .26400 | .26460 | .26540 | .26430 | .26590 | 839.20000 |
| 1.193 | 17.221 | -4.94470 | 2019.30000 | .26030 | .26030 | .26190 | .26180 | .26070 | .26120 | .26440 | 838.81000 |
| 1.198 | 21.544 | -4.96130 | 2022.10001 | .26490 | .26490 | .26430 | .26410 | .26380 | .26520 | .26460 | 839.92000 |
| | GRADIENT | | -4.75321 | -.00029 | -.00079 | -.00077 | -.00046 | -.00055 | -.00084 | .00562 | -1.63001 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER

(BETR28) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = 7.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 2204 0 RMYL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|----------|------------|---------|---------|--------|---------|---------|---------|---------|-----------|
| 1.402 | .073 | -4.98750 | 2075.79999 | .18760 | .18760 | .18750 | .18760 | .18750 | .18770 | .18740 | 895.00000 |
| 1.402 | 4.236 | -4.93950 | 2075.79999 | .18640 | .18720 | .18780 | .18670 | .18720 | .18690 | .18720 | 895.00000 |
| 1.398 | 8.503 | -4.96870 | 2078.00000 | .18940 | .18970 | .18990 | .19000 | .18940 | .18950 | .18820 | 895.00000 |
| 1.401 | 10.450 | -4.95430 | 2078.00000 | .18740 | .18730 | .18740 | .18710 | .18760 | .18780 | .18780 | 895.00000 |
| 1.400 | 12.801 | -4.93120 | 2077.29999 | .18620 | .18620 | .18590 | .18680 | .18590 | .18630 | .18730 | 895.58000 |
| 1.392 | 14.968 | -4.95440 | 2077.29999 | .18400 | .18500 | .18440 | .18410 | .18420 | .18380 | .18630 | 895.55000 |
| 1.398 | 17.132 | -4.93440 | 2077.29999 | .18300 | .18340 | .18290 | .18360 | .18350 | .18370 | .18520 | 895.55000 |
| 1.398 | 21.478 | -4.96600 | 2078.70001 | .18510 | .18510 | .18450 | .18510 | .18530 | .18500 | .18470 | 896.15000 |
| 1.398 | GRADIENT | .01177 | .00000 | -.00029 | -.00010 | .08007 | -.00022 | -.00007 | -.00019 | -.00005 | .00000 |

ARC 11-97-87-094 OA161 ORBITER

(BETR29) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = 7.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 2094 0 RMYL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|----------|------------|---------|--------|--------|--------|--------|---------|---------|-----------|
| 596 | .109 | -1.85180 | 2593.60001 | .75000 | .74930 | .74910 | .74860 | .74930 | .74970 | .82840 | 587.67000 |
| 597 | 4.181 | -1.82350 | 2593.60001 | .74980 | .75070 | .75100 | .75000 | .74950 | .74950 | .79430 | 508.26000 |
| 597 | 8.343 | -1.81870 | 2593.60001 | .75030 | .75000 | .74990 | .74990 | .74970 | .74980 | .77510 | 508.26000 |
| 595 | 10.450 | -1.81830 | 2593.60001 | .74910 | .75000 | .75010 | .74910 | .75030 | .75080 | .76430 | 507.67000 |
| 596 | 12.577 | -1.80430 | 2594.29999 | .74860 | .74860 | .74940 | .74940 | .74900 | .74910 | .74850 | 507.67000 |
| 596 | 14.676 | -1.81050 | 2593.60001 | .74600 | .74670 | .74700 | .74740 | .74690 | .74730 | .74860 | 507.09000 |
| 596 | 16.891 | -1.84168 | 2593.60001 | .74380 | .74450 | .74400 | .74390 | .74400 | .74380 | .74650 | 507.09000 |
| 597 | 21.061 | -1.84160 | 2595.00000 | .73560 | .73560 | .73560 | .73560 | .73500 | .73560 | .74210 | 508.28000 |
| 597 | GRADIENT | .00684 | .00000 | -.00005 | .00634 | .00047 | .00634 | .00095 | -.00005 | -.00837 | .14476 |

(BE7R29) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0308

PARAMETRIC DATA

BETA = -2.080 ELEVON = .000
 AILRON = 7.500 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSF) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .980 | .058 | -1.8356 | 2133.79999 | .52268 | .52160 | .52160 | .52160 | .52150 | .52160 | .51750 | 719.41000 |
| .981 | 4.258 | -1.8592 | 2133.79999 | .52360 | .52470 | .52470 | .52470 | .52340 | .52580 | .52180 | 716.25000 |
| .980 | 6.372 | -1.8323 | 2133.79999 | .52360 | .52360 | .52440 | .52370 | .52280 | .52080 | .52090 | 715.41000 |
| .981 | 8.491 | -1.8396 | 2133.79999 | .52180 | .52150 | .52120 | .52020 | .52110 | .52190 | .52040 | 715.83000 |
| .899 | 10.624 | -1.8331 | 2133.79999 | .51880 | .51900 | .51900 | .51900 | .51910 | .51920 | .51980 | 714.98000 |
| .902 | 12.755 | -1.8276 | 2134.50000 | .51180 | .51270 | .51330 | .51370 | .51390 | .51520 | .51780 | 717.55000 |
| .903 | 14.874 | -1.8220 | 2134.50000 | .50590 | .50790 | .50990 | .50800 | .50600 | .50680 | .50580 | 715.83000 |
| .901 | 17.057 | -1.8510 | 2133.79999 | .49920 | .49960 | .49960 | .49700 | .49770 | .47240 | .49160 | 718.45000 |
| .903 | 21.356 | -1.8694 | 2135.20001 | .47190 | .47340 | .47600 | .47300 | .47360 | .00102 | .00102 | 20017 |
| | GRADIENT | -.00467 | .00000 | .00076 | .00074 | .00074 | .00071 | .00045 | | | |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSF) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.200 | .058 | -1.8400 | 2020.00000 | .28240 | .28350 | .28160 | .28230 | .28200 | .28220 | .27660 | 839.77500 |
| 1.199 | 4.260 | -1.8698 | 2018.50000 | .27990 | .28040 | .28070 | .28050 | .28010 | .28080 | .27630 | 838.43000 |
| 1.201 | 8.548 | -1.8447 | 2019.50000 | .27600 | .27540 | .27610 | .27710 | .27730 | .27740 | .27740 | 839.59000 |
| 1.199 | 10.725 | -1.8177 | 2018.50000 | .27430 | .27480 | .27430 | .27430 | .27490 | .27530 | .27610 | 838.63000 |
| 1.196 | 12.878 | -1.8195 | 2018.50000 | .26980 | .27040 | .27080 | .27030 | .27060 | .26980 | .27310 | 837.65000 |
| 1.199 | 15.027 | -1.8656 | 2017.80000 | .26470 | .26500 | .26400 | .26440 | .26480 | .26450 | .26920 | 838.46000 |
| 1.199 | 17.244 | -1.8839 | 2019.50000 | .25900 | .25900 | .25900 | .25970 | .25950 | .26000 | .26500 | 839.01000 |
| 1.199 | 21.584 | -1.8780 | 2020.70000 | .25790 | .25820 | .25840 | .25810 | .25810 | .25880 | .26170 | 839.56000 |
| | GRADIENT | -.00709 | -.35695 | -.00059 | -.00074 | -.00021 | -.00043 | -.00045 | -.00033 | -.00040 | -.22368 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.404 | .051 | -1.8920 | 2077.29999 | .18930 | .18950 | .18920 | .18930 | .18940 | .18970 | .18630 | 895.64800 |
| 1.402 | 4.218 | -1.8808 | 2076.50000 | .19000 | .19050 | .18990 | .19000 | .18990 | .19020 | .18780 | 895.31000 |
| 1.398 | 8.492 | -1.8345 | 2077.29999 | .19010 | .19030 | .18990 | .18990 | .18990 | .18920 | .18900 | 895.58000 |
| 1.399 | 10.656 | -1.8258 | 2077.29999 | .18950 | .18960 | .18940 | .18920 | .18980 | .18930 | .18950 | 895.55000 |
| 1.399 | 12.799 | -1.8164 | 2077.29999 | .18810 | .18860 | .18800 | .18780 | .18790 | .18860 | .18880 | 895.56000 |
| 1.400 | 14.940 | -1.8461 | 2076.50000 | .18790 | .18750 | .18750 | .18760 | .18760 | .18650 | .18770 | 895.28000 |
| 1.402 | 17.159 | -1.9158 | 2076.50000 | .18410 | .18350 | .18410 | .18410 | .18380 | .18390 | .18600 | 895.31000 |
| 1.399 | 21.511 | -1.8840 | 2078.00000 | .18060 | .18090 | .18060 | .18070 | .18050 | .18070 | .18380 | 895.87000 |
| | GRADIENT | .00269 | -.19197 | .00017 | .00024 | .00017 | .00026 | .00012 | .00012 | .00036 | -.07919 |

(BE7R50) (02 AUG 75)

TABLATED DATA - 04161 (ARC 11-97-87-89%)

PARAMETRIC DATA

BETA = .008 ELEVON = .000
AILRON = 7.500 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0.
LREF = 474.8900 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 208/ 0 RM/L = 4.22 GRADIENT INTERVAL = -5.08V 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .596 | .071 | .20980 | 2603.50000 | .75000 | .75000 | .75000 | .75040 | .75040 | .75020 | .74930 | 509.02000 |
| .595 | 4.173 | .22290 | 2604.20001 | .75070 | .75120 | .75130 | .75090 | .75130 | .75050 | .75020 | 507.87000 |
| .594 | 6.242 | .22690 | 2604.89999 | .75070 | .75070 | .75130 | .75060 | .75130 | .75100 | .75060 | 509.05000 |
| .596 | 8.338 | .23680 | 2605.89999 | .75120 | .75120 | .75050 | .75070 | .75110 | .75050 | .75100 | 507.30000 |
| .596 | 10.432 | .23080 | 2605.60001 | .75090 | .75150 | .75110 | .75110 | .75048 | .75020 | .75080 | 509.06000 |
| .595 | 12.527 | .23370 | 2605.60001 | .74880 | .75000 | .74980 | .75020 | .75096 | .75020 | .75020 | 509.48000 |
| .596 | 14.642 | .24740 | 2605.60001 | .74930 | .74900 | .74870 | .74860 | .74840 | .74940 | .74990 | 509.64000 |
| .596 | 16.766 | .23910 | 2605.60001 | .74880 | .74550 | .74540 | .74620 | .74680 | .74680 | .74790 | 509.06000 |
| .597 | 21.019 | .22850 | 2607.00000 | .73820 | .73820 | .73680 | .73620 | .73720 | .73780 | .74290 | 511.41000 |
| .597 | 25.185 | .21690 | 2607.00000 | .72500 | .72420 | .72460 | .72350 | .72400 | .72400 | .73430 | 510.83000 |
| | | .00319 | .17865 | .00017 | .00017 | .00032 | .00012 | .00022 | .00007 | .00022 | .28034 |

RUN NO. 213/ 0 RM/L = 4.25 GRADIENT INTERVAL = -5.30V 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .898 | .044 | .22400 | 2133.10001 | .52490 | .52470 | .52380 | .52370 | .52370 | .52330 | .54310 | 713.20000 |
| .900 | 4.253 | .22950 | 2134.50000 | .52400 | .52420 | .52530 | .52450 | .52450 | .52540 | .51820 | 715.90000 |
| .902 | 6.371 | .22950 | 2133.79999 | .52420 | .52450 | .52480 | .52470 | .52330 | .52430 | .52070 | 717.07000 |
| .896 | 8.491 | .24180 | 2133.10001 | .52510 | .52450 | .52300 | .52300 | .52110 | .52300 | .52110 | 711.30000 |
| .901 | 10.641 | .23750 | 2132.39999 | .52200 | .52370 | .52090 | .52150 | .51810 | .51970 | .51900 | 715.70000 |
| .902 | 12.748 | .22430 | 2133.79999 | .51370 | .51340 | .51308 | .51370 | .51520 | .51560 | .51780 | 716.66000 |
| .902 | 14.893 | .24140 | 2134.50000 | .50510 | .50560 | .50360 | .50410 | .50600 | .50740 | .51370 | 717.55000 |
| .903 | 17.037 | .23840 | 2133.79999 | .49910 | .50020 | .50040 | .49970 | .50070 | .49820 | .50660 | 717.90000 |
| .899 | 21.304 | .22450 | 2135.70001 | .47440 | .47400 | .47400 | .47370 | .47360 | .47280 | .49090 | 715.22000 |
| .899 | 25.478 | .19660 | 2132.39999 | .44820 | .44760 | .44690 | .44760 | .44680 | .44550 | .47120 | 714.43000 |
| | | .00131 | .33263 | .00021 | .00012 | .00036 | .00021 | .00031 | .00050 | .00121 | .84147 |

RUN NO. 223/ 0 RM/L = 4.27 GRADIENT INTERVAL = -5.00V 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSP) |
|-------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.200 | .048 | .21090 | 2018.50000 | .28180 | .28150 | .28030 | .28120 | .28010 | .28000 | .27500 | 839.02000 |
| 1.190 | 4.274 | .22620 | 2017.10001 | .28060 | .28050 | .28120 | .28120 | .28190 | .28120 | .27850 | 837.80000 |
| 1.195 | 6.401 | .22970 | 2017.80000 | .28160 | .28060 | .28120 | .28100 | .28050 | .28100 | .27960 | 837.27000 |
| 1.198 | 8.570 | .23660 | 2018.50000 | .27970 | .27930 | .28020 | .27940 | .27950 | .27930 | .27930 | 838.44000 |
| 1.199 | 10.738 | .23350 | 2018.50000 | .27890 | .27790 | .27670 | .27750 | .27730 | .27730 | .27800 | 838.44000 |
| 1.195 | 12.898 | .23680 | 2018.50000 | .27270 | .27350 | .27310 | .27260 | .27260 | .27280 | .27570 | 837.84000 |
| 1.195 | 15.059 | .24170 | 2018.50000 | .26750 | .26800 | .26690 | .26740 | .26690 | .26650 | .27820 | 837.84000 |
| 1.200 | 17.223 | .22450 | 2018.50000 | .26320 | .26320 | .26330 | .26240 | .26260 | .26210 | .26790 | 838.02000 |
| 1.195 | 21.530 | .21150 | 2082.10001 | .25740 | .25740 | .25680 | .25770 | .25820 | .25650 | .26530 | 839.13000 |
| 1.199 | 25.759 | .21270 | 2082.10001 | .25050 | .25050 | .25050 | .25090 | .25030 | .24900 | .25740 | 840.12000 |
| | | .00409 | .33128 | .00028 | .00024 | .00021 | .00021 | .00043 | .00028 | .00028 | .28976 |

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TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

(BE7R30) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = 7.500 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XG
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0390

RUN NO. 218/ 0 RN/L = 4.2% GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|----------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.402 | .015 | .1880 | 2068.89999 | .19140 | .19050 | .19080 | .19070 | .19040 | .19050 | .18880 | 887.09000 |
| 1.407 | 4.228 | .21030 | 2060.29999 | .19260 | .19300 | .19230 | .19250 | .19300 | .19268 | .19130 | 888.28000 |
| 1.400 | 6.341 | .24140 | 2059.60001 | .19360 | .19360 | .19420 | .19390 | .19370 | .19410 | .19220 | 887.95000 |
| 1.398 | 8.497 | .28280 | 2051.00000 | .19370 | .19410 | .19420 | .19420 | .19410 | .19430 | .19310 | 888.54000 |
| 1.398 | 10.660 | .29520 | 2057.39999 | .19300 | .19320 | .19350 | .19320 | .19250 | .19280 | .19328 | 887.04000 |
| 1.397 | 12.798 | .23710 | 2057.39999 | .19040 | .19050 | .19110 | .19050 | .19070 | .19060 | .19190 | 886.99000 |
| 1.399 | 14.962 | .25050 | 2057.39999 | .18880 | .18890 | .18800 | .18870 | .18824 | .18850 | .19090 | 887.02000 |
| 1.398 | 17.127 | .23940 | 2057.39999 | .18590 | .18590 | .18530 | .18540 | .18610 | .18580 | .18850 | 887.01000 |
| 1.398 | 21.438 | .25140 | 2058.89999 | .18098 | .18070 | .18060 | .18080 | .18150 | .18180 | .18530 | 887.63000 |
| 1.396 | 25.768 | .20070 | 2068.29999 | .17800 | .17690 | .17660 | .17710 | .17550 | .17590 | .18170 | 888.18000 |
| GRADIENT | | .00946 | .33295 | .00029 | .00059 | .00036 | .00043 | .00062 | .00050 | .00036 | .14032 |

ARC 11-97-87-094 0A161 ORBITER

(BE7R31) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = 7.500 BOFLAP = -7.178

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XG
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 207/ 0 RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|----------|--------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .587 | .070 | 2.29780 | 2604.20001 | .74940 | .74920 | .74940 | .74890 | .74970 | .75000 | .74910 | 510.78000 |
| .594 | 4.184 | 2.31760 | 2604.20001 | .75040 | .75040 | .75040 | .75010 | .75060 | .75030 | .74970 | 506.12000 |
| .585 | 8.357 | 2.33240 | 2603.60001 | .75090 | .75140 | .75070 | .75110 | .75100 | .75140 | .74961 | 508.48000 |
| .584 | 10.462 | 2.34420 | 2606.60001 | .75230 | .75190 | .75150 | .75180 | .75150 | .75020 | .75000 | 506.73000 |
| .586 | 12.622 | 2.37380 | 2606.29999 | .75050 | .75090 | .75090 | .74930 | .74940 | .75040 | .74940 | 509.65000 |
| .596 | 14.759 | 2.32250 | 2606.29999 | .75080 | .75090 | .75080 | .74970 | .74950 | .75000 | .75060 | 510.24000 |
| .596 | 18.906 | 2.31730 | 2606.29999 | .74780 | .74770 | .74710 | .74660 | .74700 | .74750 | .74910 | 507.33000 |
| .594 | 21.119 | 2.30420 | 2606.29999 | .74040 | .74060 | .74000 | .74020 | .74150 | .74140 | .74940 | 507.13261 |
| GRADIENT | | .00481 | .00000 | .00024 | .00029 | .00027 | .00029 | .00028 | .00007 | .00015 | |

TABULATED DATA - 0A161 (ARC 11-97-87-894)

ARC 11-97-87-894 0A161 ORBITER

(BE7R31) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = 7.300 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 214/ 0 RNAL = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|------|----------|---------|------------|--------|--------|---------|--------|--------|--------|--------|-----------|
| .902 | .054 | 2.29100 | 2137.39959 | .52150 | .52190 | .52060 | .52070 | .52180 | .52200 | .52130 | 718.24000 |
| .902 | 4.251 | 2.34200 | 2137.79999 | .52300 | .52560 | .52508 | .52440 | .52630 | .52570 | .52360 | 716.66000 |
| .901 | 6.389 | 2.34180 | 2138.79999 | .52070 | .52120 | .52150 | .52170 | .52310 | .52240 | .52140 | 717.96000 |
| .900 | 8.517 | 2.33610 | 2134.50800 | .52320 | .52400 | .52390 | .52390 | .52390 | .52400 | .52280 | 719.90000 |
| .901 | 10.651 | 2.33920 | 2138.79999 | .51830 | .51660 | .51540 | .51556 | .51830 | .51830 | .51966 | 717.54080 |
| .901 | 12.804 | 2.30690 | 2136.70001 | .51380 | .51520 | .51240 | .51570 | .51750 | .51560 | .51920 | 717.34000 |
| .901 | 14.974 | 2.35930 | 2138.10001 | .50750 | .50710 | .51150 | .50890 | .50890 | .50420 | .50870 | 717.89000 |
| .905 | 17.167 | 2.35910 | 2140.20001 | .49180 | .49710 | .49440 | .49800 | .49770 | .49550 | .49020 | 721.81000 |
| .904 | 21.412 | 2.33300 | 2138.79999 | .47096 | .47050 | .47410 | .47136 | .46880 | .47140 | .49070 | 720.83880 |
| | GRADIENT | .01765 | -.89581 | .00035 | .00088 | -.00019 | .00088 | .00121 | .00088 | .00055 | -.37564 |

RUN NO. 224/ 0 RNAL = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.197 | .064 | 2.27880 | 2021.39999 | .27950 | .27960 | .27900 | .27890 | .27900 | .27900 | .27230 | 839.35000 |
| 1.198 | 4.279 | 2.33980 | 2018.50000 | .27750 | .27860 | .27870 | .27840 | .27840 | .27800 | .27500 | 838.44000 |
| 1.198 | 8.593 | 2.33870 | 2020.00000 | .27800 | .27820 | .27810 | .27800 | .27750 | .27780 | .27590 | 838.99000 |
| 1.195 | 10.798 | 2.33300 | 2017.80000 | .27840 | .27800 | .27760 | .27580 | .27570 | .27650 | .27590 | 837.47000 |
| 1.195 | 12.938 | 2.30950 | 2018.80000 | .27520 | .27490 | .27450 | .27370 | .27370 | .27300 | .27450 | 837.65000 |
| 1.195 | 15.108 | 2.36690 | 2017.80000 | .27100 | .26960 | .27000 | .27010 | .26990 | .27020 | .27250 | 837.87000 |
| 1.197 | 17.334 | 2.37190 | 2019.50000 | .26380 | .26460 | .26550 | .26440 | .26460 | .26360 | .26860 | 838.83000 |
| 1.198 | 21.623 | 2.34330 | 2021.39999 | .26330 | .26450 | .26250 | .26440 | .26130 | .26130 | .26630 | 839.54000 |
| | GRADIENT | .01495 | -.68796 | -.00047 | -.00019 | -.00087 | -.06002 | -.09014 | -.00024 | .00064 | -.21587 |

RUN NO. 217/ 0 RNAL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.403 | .017 | 2.31550 | 2036.89999 | .18910 | .18980 | .18920 | .18980 | .18890 | .18870 | .18930 | 878.25000 |
| 1.406 | 4.284 | 2.31780 | 2036.89999 | .18970 | .19010 | .19020 | .19010 | .19010 | .19050 | .18970 | 877.79000 |
| 1.325 | 8.514 | 2.33820 | 2036.20000 | .19160 | .19136 | .19120 | .19180 | .19060 | .19090 | .19070 | 877.79000 |
| 1.397 | 10.670 | 2.33230 | 2037.60001 | .18950 | .18960 | .19040 | .19050 | .19080 | .19080 | .19090 | 878.45000 |
| 1.395 | 12.843 | 2.30620 | 2037.60001 | .18850 | .18900 | .18940 | .18790 | .18840 | .18830 | .18910 | 878.45000 |
| 1.397 | 15.011 | 2.34450 | 2037.60001 | .18980 | .19020 | .18960 | .18960 | .18920 | .18920 | .18970 | 878.45000 |
| 1.398 | 17.234 | 2.36630 | 2037.60001 | .18680 | .18550 | .18600 | .18510 | .18530 | .18600 | .18790 | 878.47080 |
| 1.398 | 21.527 | 2.34400 | 2036.39999 | .18650 | .18320 | .18350 | .18310 | .18340 | .18330 | .18650 | 878.64000 |
| 1.393 | GRADIENT | .00036 | -.00000 | .06014 | .00031 | .00024 | .00021 | .00029 | .00043 | .00010 | -.08475 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

(BETR32) (02 AUG 75)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = 7.500 BBFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|---------|--------|--------|--------|---------|--------|---------|-----------|
| .597 | .111 | 5.37160 | 2607.70001 | .74830 | .74860 | .74830 | .74820 | .74850 | .74810 | .74830 | 511.42000 |
| .597 | 4.213 | 5.38950 | 2607.00000 | .74870 | .74860 | .74860 | .74860 | .74820 | .74840 | .76840 | 510.83000 |
| .596 | 8.297 | 5.40680 | 2605.60001 | .74850 | .74890 | .74810 | .74870 | .74990 | .74850 | .76070 | 509.64000 |
| .596 | 8.388 | 5.41240 | 2606.29999 | .74840 | .74860 | .74930 | .74850 | .74990 | .74850 | .75240 | 509.55000 |
| .596 | 10.511 | 5.40820 | 2606.29999 | .74910 | .75020 | .75020 | .74980 | .74990 | .75000 | .75100 | 508.65000 |
| .596 | 12.636 | 5.40920 | 2606.29999 | .74900 | .74910 | .75040 | .74880 | .74870 | .75050 | .75190 | 510.24000 |
| .596 | 14.758 | 5.40100 | 2606.29999 | .74920 | .74750 | .74900 | .74880 | .74870 | .75030 | .75030 | 509.65000 |
| .596 | 16.867 | 5.39790 | 2606.29999 | .74790 | .74770 | .74810 | .74340 | .74860 | .74920 | .74840 | 510.25000 |
| .596 | 21.082 | 5.40620 | 2607.00000 | .74280 | .74370 | .74140 | .74340 | .74180 | .74210 | .74640 | 510.25000 |
| | GRADIENT | .00680 | -.17054 | -.00005 | .00002 | .00607 | .00010 | -.00007 | .00007 | -.00371 | -.14382 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|---------|---------|--------|--------|--------|--------|--------|-----------|
| .902 | .065 | 5.40050 | 2138.10001 | .52300 | .52190 | .52110 | .52030 | .51930 | .51910 | .50990 | 718.31000 |
| .899 | 4.273 | 5.42290 | 2136.70001 | .52030 | .51760 | .52110 | .52210 | .52160 | .52230 | .51510 | 717.34000 |
| .904 | 6.402 | 5.42850 | 2137.39999 | .52030 | .52040 | .52260 | .52200 | .52290 | .52330 | .51880 | 716.14000 |
| .902 | 8.530 | 5.43050 | 2136.70001 | .51690 | .51880 | .51830 | .51490 | .51590 | .51750 | .51750 | 719.41000 |
| .902 | 10.678 | 5.41350 | 2137.39999 | .51610 | .51570 | .51470 | .51480 | .51420 | .51430 | .51620 | 716.58000 |
| .903 | 12.809 | 5.42950 | 2138.10001 | .51430 | .51260 | .51120 | .50980 | .50880 | .51100 | .51390 | 718.72000 |
| .897 | 14.946 | 5.43360 | 2135.20001 | .50690 | .50880 | .51000 | .50800 | .50770 | .50440 | .50970 | 718.45000 |
| .897 | 17.034 | 5.45790 | 2138.10001 | .50140 | .49750 | .49600 | .49690 | .49800 | .50050 | .50540 | 714.48000 |
| .902 | 21.387 | 5.47840 | 2138.10001 | .47870 | .47840 | .47880 | .48010 | .48020 | .47770 | .49370 | 716.72000 |
| | GRADIENT | .00532 | -.33270 | -.00064 | -.00088 | .00608 | .00643 | .00653 | .00076 | .00124 | -.23082 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|---------|------------|---------|---------|--------|--------|--------|--------|--------|-----------|
| 1.197 | .077 | 5.39410 | 2017.80000 | .28010 | .27980 | .27800 | .27690 | .27720 | .27840 | .27320 | 837.87000 |
| 1.198 | 4.298 | 5.42780 | 2017.10001 | .27980 | .27900 | .27930 | .27820 | .27850 | .27810 | .27540 | 837.88000 |
| 1.191 | 8.509 | 5.42830 | 2018.50000 | .27780 | .27530 | .27680 | .27510 | .27510 | .27520 | .27510 | 838.24000 |
| 1.196 | 10.782 | 5.40960 | 2017.80000 | .27650 | .27590 | .27520 | .27440 | .27440 | .27540 | .27550 | 837.67000 |
| 1.196 | 12.933 | 5.42030 | 2019.30000 | .27410 | .27360 | .27340 | .27350 | .27350 | .27270 | .27440 | 836.22000 |
| 1.195 | 15.097 | 5.43510 | 2017.80000 | .27410 | .27390 | .27390 | .27380 | .27380 | .27380 | .27450 | 837.27000 |
| 1.200 | 17.255 | 5.47000 | 2018.50000 | .27340 | .27300 | .27320 | .27280 | .27200 | .27040 | .27500 | 836.02000 |
| 1.196 | 21.581 | 5.48310 | 2022.10001 | .25960 | .25910 | .25790 | .25790 | .25710 | .25670 | .26590 | 839.33000 |
| | GRADIENT | .00798 | -.16586 | -.00026 | -.00019 | .00631 | .00631 | .00031 | .00040 | .00052 | .00237 |

TABLATED DATA - OAJ6t (ARC 11-97-87-094)

(BE7R32) (.02 AUG 76)

ARC 11-97-87-094 OAJ6t ORBITER

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
A1LRON = 7.590 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|----------|--------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.397 | .051 | 5.42770 | 2033.39999 | .18860 | .18870 | .18880 | .18890 | .18900 | .18910 | .18920 | 876.63000 |
| 1.400 | 4.247 | 5.43220 | 2034.10001 | .18930 | .18940 | .18950 | .18960 | .18970 | .18980 | .18990 | 876.98000 |
| 1.397 | 8.531 | 5.43670 | 2034.10001 | .18970 | .18980 | .18990 | .19000 | .19010 | .19020 | .19030 | 876.93000 |
| 1.397 | 10.703 | 5.44240 | 2036.20000 | .18940 | .18950 | .18960 | .18970 | .18980 | .18990 | .19000 | 877.83000 |
| 1.395 | 12.845 | 5.44860 | 2035.50000 | .18980 | .18990 | .19000 | .19010 | .19020 | .19030 | .19040 | 877.50000 |
| 1.398 | 14.997 | 5.45560 | 2036.20000 | .18950 | .18960 | .18970 | .18980 | .18990 | .19000 | .19010 | 878.16000 |
| 1.396 | 17.160 | 5.46360 | 2036.20000 | .18990 | .19000 | .19010 | .19020 | .19030 | .19040 | .19050 | 879.84000 |
| 1.398 | 21.481 | 5.47270 | 2038.10001 | .18940 | .18950 | .18960 | .18970 | .18980 | .18990 | .19000 | 879.09000 |
| GRADIENT | | .00107 | .18665 | .00029 | .00019 | .00024 | .00017 | .00017 | .00017 | .00017 | .08342 |

RUN NO. 2164 0 RML = 4.23 GRADIENT INTERVAL = -5.004 5.00

ARC 11-97-87-094 OAJ6t ORBITER

(BE7R33) (.02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A1LRON = 10.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|----------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.395 | .147 | -4.90560 | 2618.69999 | .75020 | .75030 | .75040 | .75050 | .75060 | .74950 | .74960 | 511.60000 |
| 1.397 | 4.211 | -4.91050 | 2618.29989 | .74960 | .74970 | .74980 | .74990 | .75000 | .74950 | .74960 | 512.79000 |
| 1.395 | 8.375 | -4.89780 | 2619.70001 | .74800 | .74810 | .74820 | .74830 | .74840 | .74850 | .74860 | 513.98000 |
| 1.397 | 10.484 | -4.88280 | 2619.70001 | .74730 | .74740 | .74750 | .74760 | .74770 | .74780 | .74790 | 513.98000 |
| 1.397 | 12.536 | -4.85980 | 2619.70001 | .74760 | .74770 | .74780 | .74790 | .74800 | .74810 | .74820 | 513.40000 |
| 1.396 | 14.690 | -4.84570 | 2619.70001 | .74740 | .74750 | .74760 | .74770 | .74780 | .74790 | .74800 | 512.81000 |
| 1.397 | 16.780 | -4.86340 | 2619.70001 | .74340 | .74350 | .74360 | .74370 | .74380 | .74390 | .74400 | 513.40000 |
| 1.397 | 21.023 | -4.88240 | 2619.70001 | .73660 | .73670 | .73680 | .73690 | .73700 | .73710 | .73720 | 513.98000 |
| GRADIENT | | .00123 | .34450 | .00030 | .00030 | .00020 | .00022 | .00015 | .00012 | .00012 | .29281 |

RUN NO. 2524 0 RML = 4.24 GRADIENT INTERVAL = -5.004 5.00

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TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.5800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = -5.000
AILRON = 10.000
ELEVON = -0.000
BOFLAP = -7.170

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0MP5/1 |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .908 | .111 | -4.92430 | 2116.89999 | .51960 | .51970 | .52020 | .51920 | .51928 | .51980 | .51160 | 710.07000 |
| .899 | 4.275 | -4.93190 | 2116.89999 | .52820 | .52170 | .52250 | .52140 | .52190 | .52130 | .51640 | 709.22000 |
| .899 | 6.392 | -4.92990 | 2116.89999 | .52890 | .52160 | .52180 | .52260 | .52140 | .52170 | .51820 | 709.22000 |
| .900 | 8.513 | -4.92870 | 2117.60000 | .51800 | .51800 | .51720 | .51840 | .51840 | .51780 | .51830 | 710.07000 |
| .899 | 10.649 | -4.91270 | 2116.89999 | .51470 | .51200 | .51220 | .51360 | .51280 | .51448 | .51708 | 710.07000 |
| .899 | 12.781 | -4.91030 | 2116.89999 | .51280 | .51200 | .50760 | .50360 | .50410 | .50360 | .51040 | 710.07000 |
| .900 | 14.889 | -4.91690 | 2116.89999 | .50760 | .50360 | .49830 | .49780 | .49740 | .49640 | .50520 | 710.07000 |
| .900 | 17.037 | -4.92630 | 2116.89999 | .50898 | .46840 | .46890 | .46930 | .46820 | .47840 | .48520 | 716.62000 |
| .901 | 21.323 | -4.95400 | 2116.29999 | .47010 | .00048 | .00050 | .00053 | .00066 | .00036 | .00115 | -20413 |
| | GRADIENT | | .00183 | .00052 | .00048 | .00050 | .00053 | .00066 | .00036 | .00115 | |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0MP5/1 |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .908 | .126 | -4.91260 | 2065.20001 | .42680 | .42760 | .42720 | .42690 | .43100 | .42830 | .36430 | 750.80000 |
| .901 | 4.298 | -4.91080 | 2063.79999 | .42310 | .42330 | .42430 | .42410 | .42360 | .42630 | .39080 | 750.80000 |
| .903 | 8.572 | -4.91760 | 2065.89999 | .41920 | .42000 | .41850 | .41910 | .41710 | .41830 | .40280 | 749.80000 |
| .903 | 10.715 | -4.90930 | 2064.30000 | .41950 | .41710 | .41880 | .41880 | .41630 | .41790 | .40788 | 749.80000 |
| .900 | 12.860 | -4.90500 | 2065.20001 | .41820 | .42020 | .41730 | .41810 | .41910 | .41800 | .41350 | 750.43000 |
| .908 | 15.014 | -4.91830 | 2064.50000 | .41440 | .41580 | .41290 | .40960 | .41050 | .41020 | .41150 | 749.80000 |
| .900 | 17.187 | -4.92290 | 2067.39999 | .40200 | .40240 | .40250 | .40290 | .40210 | .40190 | .40690 | 751.18000 |
| .901 | 21.472 | -4.94560 | 2065.20001 | .35168 | .38940 | .38030 | .39040 | .38970 | .39060 | .39950 | 751.18000 |
| | GRADIENT | | .00091 | .00089 | .00103 | .00078 | .00087 | .00177 | .00048 | .00635 | |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0MP5/1 |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.098 | .113 | -4.93990 | 2003.70000 | .33490 | .33490 | .33510 | .33500 | .33490 | .33460 | .32980 | 794.09000 |
| 1.099 | 4.303 | -4.94090 | 2003.70000 | .33690 | .33310 | .33240 | .33240 | .33220 | .33250 | .33110 | 794.09000 |
| 1.102 | 8.579 | -4.91590 | 2005.80000 | .32478 | .32530 | .32570 | .32520 | .32600 | .32520 | .32650 | 786.42000 |
| 1.097 | 10.731 | -4.90570 | 2004.39999 | .32390 | .32360 | .32360 | .32370 | .32380 | .32360 | .32520 | 793.84000 |
| 1.098 | 12.883 | -4.90560 | 2005.10001 | .32378 | .32280 | .32300 | .32340 | .32370 | .32410 | .32560 | 794.63000 |
| 1.098 | 15.068 | -4.91610 | 2005.80000 | .31940 | .31860 | .31950 | .31970 | .31920 | .31960 | .32260 | 795.04000 |
| 1.099 | 17.218 | -4.92680 | 2005.10001 | .31470 | .31530 | .31530 | .31470 | .31530 | .31470 | .31940 | 795.48000 |
| 1.100 | 21.538 | -4.94350 | 2006.10001 | .30880 | .30870 | .30870 | .30840 | .30870 | .30870 | .31520 | 795.18000 |
| 1.100 | GRADIENT | | .00048 | .00048 | .00043 | .00064 | .00062 | .00064 | .00050 | .00061 | .05683 |

TABULATED DATA - 0A164 (ARC 11-97-87-094)

ARC 11-97-87-094 0A164 ORBITER

(BETR33) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 ATLRON = 10.000 BDFLAP = -7.870

REFERENCE DATA

SPEF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 479.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0380

RUN NO. 231/ 0 RW/L = 4.25 GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|----------|------------|--------|--------|---------|---------|---------|---------|--------|-----------|
| 1.196 | .1101 | -4.96370 | 2006.60001 | .27910 | .27910 | .27960 | .27990 | .27990 | .28060 | .22870 | 834.76000 |
| 1.197 | 4.231 | -4.96040 | 2065.80000 | .27990 | .28090 | .27940 | .27940 | .27970 | .28050 | .25170 | 832.87000 |
| 1.198 | 8.582 | -4.93370 | 2007.20000 | .27440 | .27400 | .27440 | .27430 | .27430 | .27480 | .28130 | 833.81000 |
| 1.199 | 10.721 | -4.93280 | 2010.10001 | .26900 | .27000 | .26820 | .26810 | .26800 | .26860 | .26440 | 834.92000 |
| 1.197 | 12.881 | -4.91530 | 2009.39999 | .26820 | .26710 | .26680 | .26750 | .26680 | .26650 | .26530 | 834.35000 |
| 1.196 | 15.057 | -4.94290 | 2010.10001 | .26120 | .26070 | .26190 | .26220 | .26130 | .26080 | .26300 | 834.33000 |
| 1.196 | 17.216 | -4.93760 | 2007.89998 | .25970 | .25820 | .25790 | .25780 | .25750 | .25670 | .26310 | 833.46000 |
| 1.196 | 21.538 | -4.95700 | 2008.39999 | .26220 | .26270 | .26190 | .26150 | .26090 | .26050 | .26060 | 834.19000 |
| 1.196 | GRADIENT | .00079 | -.67105 | .00019 | .00043 | -.00005 | -.00012 | -.00005 | -.00002 | .00551 | -.45296 |

RUN NO. 230/ 0 RW/L = 4.23 GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.398 | .073 | -4.98350 | 2057.33899 | .18620 | .18610 | .18640 | .18580 | .18620 | .18660 | .18670 | 887.01000 |
| 1.399 | 4.231 | -4.97090 | 2056.70001 | .18800 | .18780 | .18730 | .18730 | .18780 | .18730 | .18720 | 885.73000 |
| 1.396 | 8.495 | -4.94630 | 2059.20001 | .18710 | .18750 | .18810 | .18760 | .18730 | .18700 | .16720 | 887.26000 |
| 1.395 | 10.645 | -4.93720 | 2057.39999 | .18520 | .18610 | .18670 | .18630 | .18640 | .18600 | .18640 | 886.56000 |
| 1.397 | 12.794 | -4.92180 | 2058.20001 | .18550 | .18480 | .18520 | .18540 | .18490 | .18460 | .16580 | 887.28000 |
| 1.397 | 14.966 | -4.91220 | 2058.20001 | .18150 | .18170 | .18200 | .18180 | .18170 | .18220 | .18420 | 887.28000 |
| 1.396 | 17.119 | -4.94220 | 2058.20001 | .18050 | .18050 | .18080 | .18140 | .16140 | .16150 | .18280 | 887.26000 |
| 1.396 | 21.463 | -4.94870 | 2059.60001 | .18230 | .18220 | .18260 | .18220 | .18280 | .18300 | .18270 | 887.68000 |
| 1.396 | GRADIENT | .00305 | -.16934 | .00043 | .00041 | .00022 | .00035 | .00038 | .00017 | .00012 | -.056734 |

(BETR3*) (02 AUG 75)

TABLATED DATA - 0A16J (ARC 11-87-87-084)

ARC 11-87-87-084 0A18I ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = 10.000 EDFLAP = -7.170

RUN NO. 253/ 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSSF) |
|------|----------|----------|------------|--------|---------|---------|--------|--------|--------|--------|-----------|
| .57 | .086 | -1.81290 | 2619.00000 | .74910 | .74980 | .74940 | .74940 | .74980 | .74930 | .74480 | 513.95000 |
| .577 | 4.190 | -1.81610 | 2618.29999 | .74980 | .74980 | .74980 | .74980 | .75000 | .74960 | .74680 | 513.95000 |
| .586 | 8.349 | -1.81500 | 2619.00000 | .74900 | .74930 | .74900 | .74870 | .74920 | .74930 | .74740 | 513.95000 |
| .597 | 10.460 | -1.80980 | 2619.00000 | .75040 | .75020 | .75020 | .74950 | .74910 | .74980 | .74790 | 513.95000 |
| .598 | 12.586 | -1.79610 | 2619.00000 | .74980 | .74930 | .75010 | .74940 | .74938 | .74970 | .74900 | 513.95000 |
| .599 | 14.564 | -1.77060 | 2619.00000 | .74730 | .74710 | .74660 | .74710 | .74730 | .74640 | .74820 | 515.13000 |
| .598 | 16.798 | -1.83660 | 2619.00000 | .74210 | .74190 | .74340 | .74310 | .74270 | .74250 | .74620 | 512.23000 |
| .596 | 21.071 | -1.83110 | 2619.70001 | .73380 | .73460 | .73460 | .73460 | .73500 | .73470 | .73980 | 512.23000 |
| .596 | GRADIENT | -.00678 | -.17864 | .00017 | -.00005 | -.00017 | .00012 | .00005 | .00007 | .00049 | -.00243 |

RUN NO. 250/ 0 RM/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSSF) |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .901 | .084 | -1.85760 | 2116.89899 | .52220 | .52140 | .52140 | .52120 | .52040 | .52030 | .54610 | 710.49000 |
| .901 | 4.247 | -1.83190 | 2116.20001 | .52310 | .52290 | .52330 | .52460 | .52370 | .52620 | .51480 | 710.00000 |
| .899 | 6.369 | -1.82800 | 2116.89999 | .52120 | .52190 | .52220 | .52390 | .52400 | .52340 | .51710 | 709.22000 |
| .899 | 8.488 | -1.83480 | 2116.89999 | .52050 | .51980 | .52040 | .52100 | .52140 | .52138 | .51920 | 709.22000 |
| .900 | 10.622 | -1.82270 | 2117.60001 | .51430 | .51560 | .51680 | .51700 | .51780 | .51730 | .51780 | 710.44000 |
| .900 | 12.750 | -1.81250 | 2117.60001 | .51240 | .51280 | .51260 | .51180 | .51220 | .51200 | .51680 | 710.44000 |
| .903 | 14.971 | -1.82510 | 2117.60001 | .50210 | .50400 | .50440 | .50520 | .50410 | .50460 | .51120 | 709.71000 |
| .903 | 17.056 | -1.88300 | 2117.60001 | .49750 | .49870 | .49880 | .49890 | .49830 | .49720 | .50520 | 709.71000 |
| .903 | 21.349 | -1.86710 | 2115.39999 | .47200 | .47430 | .47520 | .47590 | .47760 | .47390 | .49170 | 709.10000 |
| .903 | GRADIENT | .00617 | -.16813 | .00022 | .00036 | .00046 | .00082 | .00079 | .00142 | .00209 | -.11769 |

RUN NO. 242/ 0 RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSSF) |
|------|----------|----------|------------|--------|--------|---------|---------|---------|--------|--------|-----------|
| .983 | .082 | -1.82560 | 2065.89599 | .42710 | .42770 | .42870 | .43000 | .42990 | .42910 | .42020 | 751.26000 |
| .979 | 4.275 | -1.63230 | 2063.79999 | .42990 | .43040 | .42850 | .42690 | .42750 | .43070 | .42540 | 749.52000 |
| .980 | 8.553 | -1.81140 | 2063.10001 | .42350 | .42600 | .42480 | .42650 | .42660 | .42500 | .42460 | 749.80000 |
| .979 | 10.710 | -1.79450 | 2063.10001 | .41720 | .41740 | .41940 | .41760 | .41900 | .42110 | .42240 | 749.48000 |
| .977 | 12.848 | -1.79250 | 2063.79999 | .41600 | .41310 | .41540 | .41520 | .41490 | .41930 | .42000 | 749.48000 |
| .979 | 14.989 | -1.82140 | 2068.79999 | .40440 | .40540 | .40890 | .41060 | .40670 | .40480 | .41220 | 751.24000 |
| .977 | 17.183 | -1.87580 | 2063.79999 | .40130 | .40260 | .40160 | .40210 | .39990 | .39830 | .41690 | 749.48000 |
| .982 | 21.495 | -1.87580 | 2065.99899 | .38800 | .38500 | .38690 | .38660 | .39730 | .38800 | .41790 | 752.00000 |
| .982 | GRADIENT | -.00159 | -.49835 | .00066 | .00064 | -.00005 | -.00074 | -.00057 | .00038 | .00123 | -.41294 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(BETR3R) (02 AUG 78)

ARC 11-97-87-094 0A161 ORBITER

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = 10.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.680 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 239/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.099 | .085 | -1.86780 | 2003.70000 | .33740 | .33810 | .33790 | .33780 | .33740 | .33740 | .32890 | 784.37000 |
| 1.099 | 4.276 | -1.84350 | 2007.39999 | .33580 | .33550 | .33600 | .33570 | .33510 | .33580 | .33190 | 794.50000 |
| 1.098 | 8.564 | -1.82420 | 2005.10001 | .33130 | .33140 | .33120 | .33180 | .33170 | .33160 | .33180 | 794.63000 |
| 1.097 | 10.729 | -1.80080 | 2003.70000 | .32980 | .33030 | .33050 | .33060 | .32980 | .33050 | .33160 | 793.53000 |
| 1.098 | 12.880 | -1.79840 | 2005.10001 | .32650 | .32690 | .32690 | .32640 | .32650 | .32650 | .32920 | 794.63000 |
| 1.09E | 15.032 | -1.84230 | 2003.70000 | .31980 | .32000 | .32030 | .32020 | .32050 | .32050 | .32500 | 793.25000 |
| 1.097 | 17.257 | -1.89150 | 2005.80000 | .31580 | .31580 | .31600 | .31490 | .31560 | .31580 | .32100 | 794.49000 |
| 1.099 | 21.575 | -1.86600 | 2003.00000 | .30950 | .30950 | .30550 | .30950 | .30950 | .31050 | .31600 | 793.96000 |
| | GRADIENT | .00341 | .16704 | -.00038 | -.00062 | -.00045 | -.00050 | -.00055 | -.00038 | .00072 | .03102 |

RUN NO. 232/ 0 RN/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.193 | .052 | -1.82850 | 2007.89999 | .27880 | .27840 | .27830 | .27900 | .27760 | .27820 | .27270 | 834.39000 |
| 1.200 | 4.260 | -1.83550 | 2007.89999 | .27630 | .27650 | .27590 | .27660 | .27730 | .27670 | .27410 | 834.58000 |
| 1.196 | 8.550 | -1.81830 | 2009.39999 | .27680 | .27580 | .27550 | .27490 | .27570 | .27520 | .27400 | 834.15000 |
| 1.192 | 10.720 | -1.81500 | 2006.60001 | .27360 | .27340 | .27400 | .27420 | .27410 | .27400 | .27370 | 834.37000 |
| 1.195 | 12.874 | -1.80310 | 2007.89999 | .26900 | .26870 | .26860 | .26770 | .26810 | .26880 | .27180 | 833.00000 |
| 1.200 | 15.023 | -1.84110 | 2008.60001 | .26150 | .26140 | .26160 | .26150 | .26220 | .26120 | .26730 | 834.95000 |
| 1.193 | 17.240 | -1.89720 | 2007.89999 | .25680 | .25760 | .25680 | .25700 | .25730 | .25720 | .26290 | 832.60000 |
| 1.199 | 21.576 | -1.86320 | 2011.50000 | .25700 | .25620 | .25650 | .25740 | .25740 | .25740 | .26030 | 835.87000 |
| | GRADIENT | -.00169 | -.00001 | -.00059 | -.00045 | -.00057 | -.00057 | -.00007 | -.00036 | .00033 | .04515 |

RUN NO. 229/ 0 RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|----------|------------|---------|--------|--------|---------|---------|---------|--------|-----------|
| 1.400 | .045 | -1.86730 | 2050.39999 | .18930 | .18890 | .18890 | .18880 | .18910 | .18950 | .18520 | 884.00000 |
| 1.399 | 4.213 | -1.91110 | 2048.29999 | .18900 | .18900 | .18900 | .18870 | .18870 | .18900 | .18710 | 883.05000 |
| 1.398 | 8.482 | -1.82430 | 2050.39999 | .18950 | .18950 | .18910 | .18940 | .18950 | .18930 | .18820 | 883.95000 |
| 1.399 | 10.638 | -1.83030 | 2048.29999 | .18950 | .18920 | .18830 | .18940 | .18990 | .18940 | .18650 | 883.04000 |
| 1.399 | 12.783 | -1.81370 | 2047.50000 | .18480 | .18520 | .18520 | .18470 | .18520 | .18490 | .19690 | 882.76000 |
| 1.399 | 14.927 | -1.85730 | 2048.29999 | .18120 | .18130 | .18130 | .18160 | .18160 | .18150 | .16470 | 883.05000 |
| 1.400 | 17.142 | -1.91710 | 2047.50000 | .17970 | .17970 | .17980 | .18030 | .17980 | .18250 | .16470 | 882.78000 |
| 1.399 | 21.488 | -1.87730 | 2049.00000 | .18090 | .18050 | .18030 | .18090 | .18090 | .18110 | .18190 | 883.37000 |
| | GRADIENT | -.01051 | -.50400 | -.00007 | .00002 | .00002 | -.00012 | -.00010 | -.00014 | .00022 | -.22551 |

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OF POOR QUALITY

(BE7R59) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

REFERENCE DATA

SREF = 2698.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = 0000. IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = .000 ELEVON = .000
AIRLON = 10.000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|---------|--------|---------|--------|--------|--------|--------|-----------|
| .597 | .082 | .23530 | 2618.29999 | .74930 | .74910 | .74900 | .74860 | .74910 | .74900 | .74430 | 513.37000 |
| .597 | 4.188 | .23290 | 2618.29999 | .74900 | .74880 | .74870 | .74840 | .74930 | .74900 | .74610 | 512.79000 |
| .597 | 6.298 | .24010 | 2619.00000 | .74900 | .74880 | .74870 | .74840 | .74930 | .74900 | .74730 | 512.80000 |
| .597 | 8.348 | .24650 | 2619.00000 | .74880 | .74860 | .74850 | .74820 | .74910 | .74880 | .74610 | 513.96000 |
| .597 | 10.448 | .24250 | 2619.00000 | .74870 | .74850 | .74840 | .74810 | .74900 | .74870 | .74630 | 512.80000 |
| .597 | 12.545 | .24140 | 2619.00000 | .74840 | .74820 | .74810 | .74780 | .74870 | .74840 | .74680 | 513.98000 |
| .597 | 14.657 | .25290 | 2619.70000 | .74710 | .74670 | .74660 | .74630 | .74720 | .74690 | .74750 | 515.14000 |
| .597 | 16.771 | .24320 | 2619.70000 | .74450 | .74430 | .74420 | .74390 | .74480 | .74450 | .74560 | 513.40000 |
| .598 | 21.022 | .23590 | 2619.70000 | .73540 | .73580 | .73590 | .73560 | .73650 | .73620 | .73990 | 515.14000 |
| .597 | 25.180 | .21360 | 2619.70000 | .72110 | .72100 | .72100 | .72070 | .72160 | .72210 | .73200 | 513.98000 |
| | GRADIENT | -.00058 | .00000 | -.00007 | .00082 | -.00005 | .00010 | .00005 | .00000 | .00044 | -.14127 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .900 | .040 | .21850 | 2116.89999 | .51990 | .52130 | .52030 | .52150 | .52110 | .52080 | .50730 | 710.07000 |
| .900 | 4.252 | .24140 | 2116.89999 | .52340 | .52410 | .52440 | .52440 | .52250 | .52270 | .51420 | 710.07000 |
| .900 | 6.361 | .23900 | 2117.60000 | .52300 | .52380 | .52300 | .52310 | .52310 | .52370 | .51840 | 709.71000 |
| .900 | 8.488 | .23568 | 2117.60000 | .51960 | .52030 | .51990 | .51930 | .51930 | .51680 | .51780 | 709.71000 |
| .900 | 10.630 | .24210 | 2117.60000 | .51860 | .52060 | .51730 | .51680 | .51920 | .51890 | .51840 | 710.55000 |
| .900 | 12.746 | .23900 | 2117.60000 | .51110 | .51260 | .51220 | .51108 | .51960 | .51050 | .51490 | 710.14000 |
| .899 | 14.882 | .25030 | 2117.60000 | .50650 | .50860 | .50650 | .50600 | .50330 | .50680 | .51200 | 709.28000 |
| .900 | 17.020 | .24520 | 2117.60000 | .49850 | .49850 | .49850 | .49738 | .49950 | .49950 | .49668 | 709.71000 |
| .900 | 21.292 | .23020 | 2115.39999 | .47250 | .47250 | .46980 | .47230 | .47140 | .47140 | .47320 | 709.10000 |
| .899 | 25.428 | .21520 | 2115.39999 | .44990 | .44990 | .44680 | .44650 | .44680 | .44570 | .47320 | 708.23000 |
| | GRADIENT | .00544 | .00080 | .00058 | .00100 | .00097 | .00066 | .00033 | .00045 | .00044 | .00000 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|---------|---------|--------|--------|---------|--------|--------|-----------|
| .980 | .052 | .23568 | 2062.39999 | .42920 | .43020 | .43030 | .42960 | .43080 | .42940 | .41990 | 749.35000 |
| .979 | 4.278 | .22810 | 2064.50000 | .43000 | .43020 | .43030 | .43070 | .43020 | .42970 | .42290 | 749.35000 |
| .980 | 6.404 | .23920 | 2064.50000 | .43140 | .43020 | .43170 | .43080 | .43020 | .43050 | .42450 | 750.35000 |
| .978 | 8.558 | .24730 | 2063.10000 | .42540 | .42540 | .42540 | .42630 | .42620 | .42720 | .42590 | 748.69000 |
| .978 | 10.719 | .24190 | 2066.10000 | .41860 | .42010 | .42130 | .41910 | .41930 | .41850 | .42170 | 750.41000 |
| .980 | 12.857 | .25000 | 2064.50000 | .41600 | .41720 | .41290 | .41478 | .41260 | .41300 | .41850 | 750.35000 |
| .976 | 15.008 | .22660 | 2062.39999 | .41230 | .41250 | .41200 | .41030 | .41120 | .41060 | .41620 | 746.73000 |
| .980 | 17.168 | .25260 | 2063.79999 | .39870 | .39870 | .39870 | .39940 | .39940 | .39870 | .40810 | 749.89000 |
| .979 | 21.448 | .21030 | 2065.20000 | .38100 | .38100 | .38100 | .38780 | .38750 | .38750 | .39820 | 750.06000 |
| .979 | 25.621 | .19090 | 2065.20000 | .36800 | .36900 | .36870 | .36940 | .37040 | .36920 | .38670 | 750.06000 |
| | GRADIENT | -.00177 | .49686 | -.00012 | -.00005 | .00080 | .00027 | -.00059 | .00007 | .00071 | .14906 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER

(BETR36) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AIRLON = 10.000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .597 | .095 | 2.26910 | 2618.29999 | .74850 | .74830 | .74830 | .74840 | .74834 | .74840 | .74360 | 512.79000 |
| .597 | 4.186 | 2.33120 | 2618.29999 | .74920 | .74970 | .74970 | .74960 | .74880 | .74930 | .74560 | 512.79000 |
| .596 | 8.366 | 2.34230 | 2618.29999 | .74960 | .75040 | .75040 | .74930 | .74890 | .74960 | .74680 | 511.62000 |
| .598 | 10.472 | 2.35710 | 2595.00000 | .74700 | .74710 | .74710 | .74750 | .74630 | .74900 | .75090 | 511.77000 |
| .597 | 12.621 | 2.37840 | 2592.89999 | .74950 | .74980 | .74980 | .74860 | .74980 | .74850 | .74950 | 507.66000 |
| .595 | 14.782 | 2.32700 | 2594.29999 | .74840 | .74780 | .74890 | .74870 | .74850 | .74820 | .74810 | 505.34000 |
| .597 | 16.905 | 2.31440 | 2594.29999 | .74740 | .74630 | .74630 | .74480 | .74550 | .74820 | .74340 | 508.27000 |
| .598 | 21.115 | 2.31027 | 2595.00000 | .73820 | .73760 | .73760 | .73800 | .73700 | .73700 | .74340 | 510.02000 |
| | GRADIENT | .01027 | .00000 | .00017 | .00029 | .00034 | .00029 | .00012 | .00022 | .00046 | .00000 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .898 | .030 | 2.31610 | 2413.29999 | .52270 | .52260 | .52110 | .52190 | .52150 | .52170 | .51280 | 707.19000 |
| .898 | 4.248 | 2.37010 | 2413.29999 | .52340 | .52320 | .52460 | .52490 | .52460 | .52380 | .51680 | 707.19000 |
| .897 | 6.375 | 2.37680 | 2414.00000 | .52740 | .52570 | .52570 | .52350 | .52250 | .52310 | .52000 | 706.39000 |
| .898 | 8.499 | 2.33340 | 2413.29999 | .52330 | .52270 | .52090 | .52080 | .52210 | .52240 | .52090 | 705.03000 |
| .897 | 10.635 | 2.33660 | 2414.00000 | .52010 | .52000 | .51900 | .52120 | .52050 | .52030 | .52060 | 706.39000 |
| .904 | 12.808 | 2.32330 | 2414.00000 | .51340 | .50780 | .51180 | .51040 | .51020 | .51200 | .51690 | 708.55000 |
| .898 | 14.963 | 2.35370 | 2413.29999 | .49990 | .49740 | .49940 | .50540 | .50750 | .50790 | .49740 | 705.82000 |
| .897 | 17.138 | 2.39010 | 2413.29999 | .46370 | .46460 | .46460 | .46530 | .46650 | .46660 | .48920 | 706.33000 |
| .906 | 21.397 | 2.32550 | 2415.39999 | .00017 | .00014 | .00083 | .00071 | .00073 | .00050 | .00097 | 710.76000 |
| | GRADIENT | .00332 | .00000 | .00014 | .00014 | .00083 | .00071 | .00073 | .00050 | .00097 | .00000 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .960 | .062 | 2.30100 | 2065.20001 | .42990 | .42770 | .42770 | .42790 | .42940 | .42590 | .41510 | 750.43000 |
| .978 | 4.283 | 2.34150 | 2064.50000 | .43180 | .42940 | .43060 | .42680 | .43110 | .42810 | .42190 | 749.23000 |
| .987 | 8.576 | 2.34520 | 2066.60001 | .42630 | .42480 | .42450 | .42680 | .42300 | .42080 | .42160 | 750.98000 |
| .977 | 10.733 | 2.33640 | 2062.39999 | .42620 | .42670 | .42340 | .42290 | .42240 | .42260 | .42260 | 747.48000 |
| .976 | 12.901 | 2.31000 | 2065.20001 | .41880 | .41340 | .41330 | .41660 | .41180 | .41520 | .41870 | 748.20000 |
| .979 | 15.056 | 2.34640 | 2065.20001 | .41260 | .40860 | .40730 | .40920 | .41220 | .40920 | .41460 | 749.69000 |
| .979 | 17.270 | 2.36270 | 2063.10001 | .40700 | .40750 | .40960 | .41050 | .40840 | .40440 | .41070 | 749.05000 |
| .979 | 21.527 | 2.32820 | 2063.79999 | .38830 | .38810 | .38910 | .38790 | .38790 | .38820 | .40090 | 749.52000 |
| | GRADIENT | .00959 | .16587 | .00045 | .00040 | .00069 | .00024 | .00135 | .00135 | .00161 | .00000 |

TABLATED DATA - OAI61 (ARC 11-97-87-084)

ARC 11-97-87-084 OAI61 ORBITER

(BETR38) 1 02 AUG 78)

PARAMETRIC DATA

BETA = 2.000 ELEVOM = .000
A1LRON = 10.008 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0080 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RUN NO. 237 0 RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.097 | .045 | 2.32820 | 2003.00000 | .33670 | .33670 | .33720 | .33670 | .33720 | .33690 | .32930 | 793.12000 |
| 1.098 | 4.283 | 2.31060 | 2003.70000 | .33550 | .33520 | .33520 | .33500 | .33520 | .33520 | .33170 | 794.37000 |
| 1.098 | 8.565 | 2.30310 | 2003.00000 | .33330 | .33270 | .33280 | .33330 | .33300 | .33320 | .33210 | 793.68000 |
| 1.099 | 10.758 | 2.32550 | 2005.10000 | .33060 | .33060 | .33090 | .33080 | .33110 | .33130 | .33130 | 794.51000 |
| 1.099 | 12.926 | 2.31480 | 2005.80000 | .32810 | .32810 | .32810 | .32820 | .32810 | .32790 | .32980 | 795.04000 |
| 1.096 | 15.117 | 2.36570 | 2004.39999 | .32640 | .32690 | .32700 | .32690 | .32730 | .32770 | .32900 | 793.10000 |
| 1.097 | 17.338 | 2.36150 | 2004.39998 | .32170 | .32210 | .32210 | .32230 | .32240 | .32270 | .32590 | 793.94000 |
| 1.100 | 21.622 | 2.34450 | 2005.10000 | .30900 | .30900 | .30900 | .30900 | .30850 | .30900 | .31880 | 795.18000 |
| | GRADIENT | .06415 | .15516 | -.00040 | -.00028 | -.00028 | -.00040 | -.00047 | -.00040 | .00057 | .29494 |

RUN NO. 234 0 RVL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| 1.198 | .050 | 2.30660 | 2006.60000 | .27800 | .27830 | .27730 | .27840 | .27700 | .27770 | .27080 | 834.37000 |
| 1.198 | 4.270 | 2.32910 | 2007.20000 | .27590 | .27570 | .27570 | .27440 | .27450 | .27480 | .27210 | 833.81000 |
| 1.195 | 8.568 | 2.34410 | 2008.60000 | .27740 | .27720 | .27750 | .27540 | .27570 | .27570 | .27350 | 833.38000 |
| 1.196 | 10.751 | 2.33970 | 2008.50000 | .27300 | .27360 | .27410 | .27430 | .27430 | .27430 | .27410 | 833.78000 |
| 1.196 | 12.933 | 2.31970 | 2008.60000 | .27230 | .27228 | .27250 | .27250 | .27330 | .27230 | .27370 | 833.58000 |
| 1.196 | 15.106 | 2.37410 | 2008.60000 | .26720 | .26640 | .26600 | .26650 | .26710 | .26710 | .26810 | 833.97000 |
| 1.197 | 17.328 | 2.38290 | 2006.60000 | .26530 | .26570 | .26530 | .26510 | .26320 | .26510 | .26590 | 835.51000 |
| 1.200 | 21.612 | 2.36270 | 2010.10000 | .26260 | .26270 | .26380 | .26340 | .26320 | .26250 | .26031 | 835.51000 |
| | GRADIENT | .00677 | .33253 | -.00050 | -.00062 | -.00038 | -.00095 | -.00059 | -.00069 | .00031 | -.13302 |

RUN NO. 227 0 RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| 1.402 | .010 | 2.30820 | 2028.50000 | .18650 | .18660 | .18700 | .18680 | .18700 | .18650 | .19140 | 874.56000 |
| 1.401 | 4.214 | 2.32120 | 2027.70000 | .18790 | .18770 | .18810 | .18780 | .18770 | .18750 | .19010 | 874.26000 |
| 1.397 | 8.508 | 2.33320 | 2027.70000 | .18580 | .18760 | .18740 | .18740 | .18780 | .18800 | .18960 | 874.18000 |
| 1.396 | 10.663 | 2.32870 | 2029.20000 | .18650 | .18650 | .18650 | .18620 | .18610 | .18690 | .18860 | 874.76000 |
| 1.347 | 12.833 | 2.32870 | 2028.50000 | .18500 | .18500 | .18520 | .18560 | .18510 | .18470 | .18669 | 874.49000 |
| 1.398 | 15.008 | 2.35150 | 2029.20000 | .18400 | .18430 | .18420 | .18460 | .18480 | .18440 | .18700 | 874.81000 |
| 1.398 | 17.223 | 2.37950 | 2028.50000 | .18480 | .18490 | .18530 | .18500 | .18480 | .18450 | .18650 | 874.55000 |
| 1.400 | 21.517 | 2.34090 | 2031.30000 | .18260 | .18260 | .18210 | .18240 | .18200 | .18210 | .18500 | 875.69000 |
| 1.397 | GRADIENT | .00309 | -.19823 | .00026 | .00026 | .00026 | .00024 | .00017 | .00021 | -.00031 | -.07510 |

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TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER

(BE7R57) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILROW = 10.000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.8800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PFS) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .598 | .108 | 5.38070 | 2593.60001 | .74770 | .74800 | .74770 | .74800 | .74770 | .74790 | .74630 | 509.42000 |
| .598 | 4.211 | 5.40400 | 2593.60001 | .74780 | .74730 | .74770 | .74800 | .74770 | .74810 | .74620 | 509.42000 |
| .598 | 8.369 | 5.41850 | 2594.29999 | .74760 | .74810 | .74860 | .74750 | .74800 | .74720 | .74650 | 509.43000 |
| .598 | 10.508 | 5.41650 | 2595.00000 | .74700 | .74790 | .74800 | .74820 | .74800 | .74900 | .74680 | 510.02000 |
| .597 | 12.631 | 5.41360 | 2594.29999 | .74760 | .74910 | .74850 | .74980 | .74980 | .74810 | .74810 | 508.85000 |
| .597 | 14.753 | 5.41020 | 2595.00000 | .74810 | .74820 | .74840 | .74880 | .74750 | .74800 | .74830 | 509.44000 |
| .597 | 16.861 | 5.40900 | 2594.29999 | .74920 | .74780 | .74800 | .74808 | .74740 | .74570 | .74790 | 508.27000 |
| .599 | 21.074 | 5.41790 | 2595.00000 | .74340 | .74250 | .74290 | .74300 | .74370 | .74500 | .74600 | 511.19000 |
| | GRADIENI | .00568 | .00000 | .00019 | .00022 | .00012 | .00067 | .00097 | .00905 | .00002 | .00000 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PFS) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .890 | .099 | 5.40950 | 2116.20001 | .51750 | .51740 | .51740 | .51830 | .51870 | .51770 | .45280 | 709.16000 |
| .899 | 4.282 | 5.43190 | 2114.70001 | .51710 | .51860 | .52020 | .51920 | .52050 | .51770 | .48220 | 708.18000 |
| .901 | 6.336 | 5.42810 | 2118.29999 | .51750 | .51750 | .51780 | .51760 | .51660 | .51650 | .49520 | 710.62000 |
| .899 | 8.522 | 5.43670 | 2116.89999 | .52010 | .52310 | .52010 | .51790 | .51690 | .51950 | .50580 | 709.22000 |
| .899 | 10.674 | 5.42250 | 2116.89999 | .51440 | .51850 | .51750 | .51650 | .51490 | .51380 | .50840 | 709.22000 |
| .898 | 12.799 | 5.42570 | 2116.20001 | .51810 | .51850 | .51420 | .51310 | .51240 | .51410 | .51120 | 707.43000 |
| .900 | 14.943 | 5.43870 | 2118.29999 | .50860 | .50760 | .50550 | .50380 | .50310 | .50680 | .50810 | 710.20000 |
| .898 | 17.078 | 5.45120 | 2116.20001 | .49350 | .49740 | .50000 | .49940 | .49800 | .50010 | .50920 | 707.43000 |
| .898 | 21.358 | 5.46310 | 2116.20001 | .47790 | .47660 | .47740 | .48280 | .47870 | .48010 | .49450 | 708.73000 |
| | GRADIENI | .00747 | -.36586 | .00010 | .00026 | .00067 | .00021 | .00043 | .00067 | .00669 | -.25314 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PFS) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .979 | .063 | 5.40950 | 2064.50000 | .42850 | .42610 | .42770 | .42820 | .42720 | .42800 | .41940 | 749.98000 |
| .981 | 4.295 | 5.42730 | 2063.79999 | .42950 | .43110 | .43090 | .42980 | .42910 | .42810 | .42570 | 750.63000 |
| .976 | 8.581 | 5.42550 | 2063.10001 | .42900 | .43290 | .43280 | .43220 | .43520 | .44120 | .43210 | 747.19000 |
| .978 | 10.755 | 5.40110 | 2068.10001 | .42900 | .42780 | .43060 | .42868 | .43190 | .42600 | .42850 | 750.41000 |
| .981 | 12.907 | 5.40970 | 2063.79999 | .41690 | .41440 | .41490 | .41780 | .41770 | .41820 | .42470 | 751.00000 |
| .982 | 15.053 | 5.41750 | 2064.39999 | .41550 | .41280 | .40990 | .40950 | .41180 | .41450 | .41960 | 752.95000 |
| .979 | 17.205 | 5.45630 | 2064.50000 | .40890 | .40650 | .40690 | .40900 | .40960 | .41000 | .41440 | 749.98000 |
| .983 | 21.505 | 5.45980 | 2066.50001 | .38870 | .38890 | .38860 | .38890 | .38730 | .38790 | .40240 | 752.83000 |
| | GRADIENI | .08425 | -.16541 | .00024 | .00118 | .00076 | .00038 | .00045 | .00002 | .00102 | -.15360 |

TABULATED DATA - OAI61 (ARC 11-97-87-094)
ARC 11-97-87-094 OAI61 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8900 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 376.0000 IN. Z0
SCALE = .0300

BETA = 5.000 ELEVON = .000
AILRON = 10.000 BOFLAP = -7.170

PARAMETRIC DATA

| MACH. | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|--------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.100 | .071 | 5.3930 | 2004.39999 | .33070 | .33029 | .32950 | .33080 | .33050 | .33140 | .29720 | 795.33000 |
| 1.100 | 4.304 | 5.4330 | 2004.39999 | .33150 | .33160 | .33220 | .33170 | .33090 | .33150 | .31220 | 795.05000 |
| 1.097 | 8.603 | 5.4309 | 2005.10001 | .32820 | .32840 | .32860 | .32800 | .32840 | .32750 | .31880 | 794.07000 |
| 1.098 | 10.782 | 5.4110 | 2005.80000 | .32610 | .32660 | .32620 | .32730 | .32740 | .32780 | .32190 | 794.76000 |
| 1.098 | 12.931 | 5.4109 | 2006.50000 | .32770 | .32750 | .32780 | .32910 | .32850 | .32830 | .32460 | 795.17000 |
| 1.098 | 15.088 | 5.4270 | 2004.39999 | .32920 | .32840 | .32900 | .32900 | .32880 | .32800 | .32590 | 795.04000 |
| 1.099 | 17.257 | 5.4637 | 2005.80000 | .32640 | .32950 | .32660 | .32620 | .32710 | .32650 | .32590 | 795.04000 |
| 1.100 | 21.568 | 5.4859 | 2005.10001 | .30570 | .30520 | .30640 | .30620 | .30650 | .30620 | .31740 | 795.46000 |
| | GRADIENT | .00053 | .00000 | .00019 | .00033 | .00064 | .00021 | .00009 | .00002 | .00354 | -.06614 |

| MACH. | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|---------|------------|---------|--------|---------|--------|---------|---------|--------|-----------|
| 1.197 | .076 | 5.4360 | 2007.20000 | .27630 | .27670 | .27620 | .27610 | .27650 | .27710 | .27400 | 833.42000 |
| 1.198 | 4.288 | 5.4240 | 2007.20000 | .27590 | .27670 | .27590 | .27630 | .27580 | .27670 | .27580 | 833.81000 |
| 1.194 | 8.600 | 5.4350 | 2008.60001 | .27830 | .27800 | .27630 | .27680 | .27660 | .27720 | .27600 | 833.18000 |
| 1.198 | 10.777 | 5.4200 | 2009.39999 | .27450 | .27480 | .27400 | .27350 | .27310 | .27410 | .27490 | 834.55000 |
| 1.196 | 12.924 | 5.4320 | 2008.60001 | .27520 | .27380 | .27320 | .27260 | .27450 | .27360 | .27450 | 833.58000 |
| 1.196 | 15.089 | 5.4410 | 2010.10001 | .27130 | .27190 | .27300 | .27260 | .27260 | .27300 | .27390 | 834.33000 |
| 1.197 | 17.246 | 5.4802 | 2008.60001 | .26880 | .26890 | .26900 | .26890 | .26660 | .26770 | .27130 | 833.97000 |
| 1.197 | 21.568 | 5.5013 | 2006.50000 | .25800 | .25020 | .26010 | .26080 | .26060 | .25850 | .26610 | 833.24000 |
| | GRADIENT | -.00138 | .00000 | -.00009 | .00000 | -.00007 | .00085 | -.00017 | -.00009 | .00043 | .09260 |

| MACH. | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF1 |
|-------|----------|--------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| 1.400 | .048 | 5.4379 | 2028.50000 | .18720 | .18700 | .18700 | .18660 | .18660 | .18650 | .18580 | 874.95000 |
| 1.400 | 4.241 | 5.4400 | 2026.30000 | .18810 | .18900 | .18840 | .18820 | .18840 | .18650 | .18780 | 873.62000 |
| 1.396 | 8.520 | 5.4391 | 2026.50000 | .18690 | .18660 | .18660 | .18680 | .18690 | .18670 | .18670 | 874.47000 |
| 1.397 | 10.695 | 5.4087 | 2028.50000 | .18570 | .18700 | .18710 | .18710 | .18710 | .18740 | .20020 | 874.49000 |
| 1.397 | 12.857 | 5.4461 | 2029.20000 | .18750 | .18630 | .18630 | .18680 | .18670 | .18680 | .24970 | 874.78000 |
| 1.398 | 14.993 | 5.4373 | 2028.50000 | .18790 | .18740 | .18740 | .18760 | .18700 | .18650 | .21780 | 874.50000 |
| 1.397 | 17.154 | 5.4731 | 2029.20000 | .18750 | .18720 | .18730 | .18760 | .18740 | .18750 | .20530 | 874.78000 |
| 1.399 | 21.474 | 5.5009 | 2029.89999 | .18030 | .17950 | .18000 | .18000 | .18040 | .18040 | .19560 | 875.14000 |
| | GRADIENT | .00050 | -.52461 | .00021 | .00043 | .00025 | .00038 | .00043 | .00048 | -.05079 | -.22177 |

(BETR38) (02 AUG 78)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690 0000 SO.FT. YMRP = 1076.6800 IN. X0
LREF = 474.0000 IN. YMRP = .0000 IN. Y0
BREF = 936.8800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA =
ALTRON =
ELEVON = .000
BD/FLAP = -.7170

RUN NO. 2637 0 RNL = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PF1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| .300 | 1.211 | -7.94770 | 4128.29999 | .94180 | .94150 | .92880 | .92840 | .92880 | .99970 | .99980 | 243.92000 |
| .299 | 2.173 | -7.89910 | 4128.29999 | .94190 | .94200 | .92910 | .92880 | .92910 | .99980 | .99980 | 243.25000 |
| .298 | 4.172 | -7.89838 | 4128.29999 | .94190 | .94210 | .92900 | .92890 | .92920 | .99970 | .99960 | 243.25000 |
| .297 | 6.192 | -7.89550 | 4128.29999 | .94190 | .94200 | .92900 | .92890 | .92900 | .99960 | .99990 | 243.25000 |
| .296 | 8.230 | -7.88280 | 4128.29999 | .94196 | .94200 | .92900 | .92880 | .92890 | .99950 | 1.00000 | 243.25000 |
| .295 | 10.271 | -7.87150 | 4128.29999 | .94190 | .94190 | .92890 | .92890 | .92890 | .99970 | .99970 | 242.58000 |
| .294 | 12.315 | -7.85480 | 4128.29999 | .94189 | .94190 | .92890 | .92890 | .92890 | .99910 | 1.00800 | 243.25000 |
| .293 | 14.372 | -7.83310 | 4128.29999 | .94160 | .94180 | .92890 | .92880 | .92870 | .99960 | .99960 | 242.58000 |
| .292 | 16.417 | -7.80470 | 4128.29999 | .94160 | .94170 | .92880 | .92890 | .92880 | .99970 | .99930 | 242.58000 |
| .291 | 18.471 | -7.76540 | 4128.29999 | .94150 | .94150 | .92880 | .92870 | .92860 | .99980 | .99930 | 243.25000 |
| .290 | 20.528 | -7.71890 | 4128.29999 | .94150 | .94140 | .92870 | .92870 | .92870 | .99970 | .99850 | 242.58000 |
| .289 | 22.588 | -7.66920 | 4128.29999 | .94150 | .94150 | .92860 | .92860 | .92860 | .99970 | .99740 | 243.25000 |
| .288 | 24.623 | -7.61540 | 4128.29999 | .94140 | .94150 | .92850 | .92840 | .92850 | .99970 | .99710 | 243.25000 |
| .287 | 25.643 | -7.55550 | 4128.29999 | .94140 | .94140 | .92840 | .92840 | .92830 | .99970 | .99710 | 243.25000 |
| | GRADIENT | .01422 | .00080 | .00083 | .00018 | .00065 | .00015 | .00012 | .00001 | .00007 | -.19200 |

RUN NO. 2647 0 RNL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PF1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|------|----------|----------|------------|---------|---------|---------|---------|---------|--------|--------|-----------|
| .587 | 1.221 | -8.00730 | 2532.70001 | 1.32520 | 1.46930 | .80310 | 1.31910 | 1.32430 | .99690 | .99710 | 497.23000 |
| .586 | 2.205 | -7.96530 | 2532.70001 | 1.18110 | 1.39300 | .79710 | 1.18690 | 1.28020 | .99750 | .99750 | 494.90000 |
| .585 | 4.240 | -7.90370 | 2532.70001 | 1.07530 | 1.30840 | .79180 | 1.08580 | 1.22250 | .99790 | .99800 | 495.48000 |
| .584 | 6.303 | -7.81560 | 2532.70001 | .99880 | 1.22710 | .78500 | 1.00910 | 1.16250 | .99770 | .99810 | 495.07000 |
| .583 | 8.386 | -7.70070 | 2532.70001 | .94260 | 1.15190 | .77940 | .94990 | 1.10450 | .99770 | .99810 | 495.48000 |
| .582 | 10.476 | -7.55260 | 2532.70001 | .90158 | 1.08620 | .77550 | .90520 | 1.05070 | .99700 | .99840 | 495.07000 |
| .581 | 12.577 | -7.38850 | 2533.39999 | .87070 | 1.02920 | .77170 | .87020 | 1.00280 | .99570 | .99800 | 495.66000 |
| .580 | 14.686 | -7.23180 | 2533.39999 | .84870 | .98240 | .76620 | .84340 | .92540 | .99400 | .99780 | 495.66000 |
| .579 | 16.778 | -7.08320 | 2532.70001 | .82250 | .94370 | .76170 | .82220 | .89390 | .99180 | .99730 | 494.90000 |
| .578 | 18.884 | -7.93970 | 2533.39999 | .82038 | .91180 | .75620 | .80480 | .89390 | .98910 | .99640 | 494.90000 |
| .577 | 20.989 | -7.93840 | 2533.39999 | .81110 | .88570 | .75210 | .79110 | .86798 | .98340 | .98530 | 497.24000 |
| .576 | 23.075 | -7.93480 | 2533.39999 | .80478 | .86480 | .74970 | .78030 | .84570 | .97590 | .98290 | 497.24000 |
| .575 | 25.131 | -7.93280 | 2533.39999 | .79990 | .84840 | .74340 | .77060 | .82680 | .96580 | .98390 | 498.49000 |
| .574 | 26.132 | -7.90740 | 2532.70001 | .79650 | .83530 | .73670 | .76230 | .81090 | .95880 | .98870 | 497.23000 |
| | GRADIENT | .00528 | -.00003 | -.07815 | -.05154 | -.00357 | -.07313 | -.03292 | .00021 | .00028 | -.44963 |

TABLATED DATA - 0A18J (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A18J ORBITER + PROBES

REFERENCE DATA
SREF = 2690.0800 SO.FT. XMRP = 1076.6600 IN. XO
LREF = 474.8060 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = -5.008 ELEVON = .000
AFLRON = .000 BDFLAP = -7.170

RUN NO. 268# 0 RM/L = 3.98 GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSE) |
|------|----------|----------|------------|--------|--------|--------|--------|--------|---------|---------|-----------|
| .297 | 1.154 | -4.91090 | 4127.59998 | .94170 | .92960 | .92930 | .92900 | .92930 | .99980 | .99990 | 242.59000 |
| .298 | 2.137 | -4.90100 | 4127.59998 | .94200 | .92970 | .92930 | .92910 | .92930 | .99980 | .99980 | 243.24000 |
| .299 | 4.135 | -4.91230 | 4127.59998 | .94210 | .92970 | .92930 | .92930 | .92930 | .99970 | 1.00000 | 242.58000 |
| .299 | 6.165 | -4.90710 | 4127.59998 | .94210 | .92960 | .92930 | .92930 | .92930 | .99950 | 1.00010 | 242.59000 |
| .299 | 8.203 | -4.90440 | 4127.59998 | .94200 | .92970 | .92930 | .92930 | .92930 | .99950 | .99990 | 241.91000 |
| .298 | 10.263 | -4.89420 | 4127.59998 | .94200 | .92970 | .92930 | .92930 | .92930 | .99930 | .99990 | 241.91000 |
| .298 | 12.320 | -4.88770 | 4127.59998 | .94210 | .92970 | .92930 | .92930 | .92930 | .99900 | .99990 | 241.91000 |
| .298 | 14.368 | -4.87190 | 4127.59998 | .94210 | .92960 | .92930 | .92930 | .92930 | .99900 | .99990 | 242.58000 |
| .299 | 16.404 | -4.86400 | 4127.59998 | .94190 | .92960 | .92930 | .92930 | .92930 | .99900 | .99990 | 242.58000 |
| .299 | 18.473 | -4.85400 | 4127.59998 | .94150 | .92960 | .92930 | .92930 | .92930 | .99900 | .99990 | 242.58000 |
| .299 | 20.538 | -4.84170 | 4128.29999 | .94180 | .92960 | .92930 | .92930 | .92930 | .99900 | .99990 | 242.58000 |
| .298 | 22.584 | -4.83070 | 4127.59998 | .94130 | .92960 | .92930 | .92930 | .92930 | .99900 | .99990 | 242.58000 |
| .298 | 24.637 | -4.87430 | 4128.29999 | .94150 | .92960 | .92930 | .92930 | .92930 | .99900 | .99990 | 242.58000 |
| .298 | 25.638 | -4.86300 | 4128.29999 | .94170 | .92960 | .92930 | .92930 | .92930 | .99900 | .99990 | 243.92000 |
| .300 | GRADIENT | -.00123 | -.00007 | .00006 | .00003 | .00003 | .00010 | .00004 | -.00004 | .00004 | -.04765 |

RUN NO. 268A 0 RM/L = 4.22 GRADIENT INTERVAL = -5.00* 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSE) |
|------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| .595 | 1.137 | -4.93370 | 2530.60801 | .79400 | .81950 | .75470 | .76910 | .78860 | .99860 | .99910 | 494.28000 |
| .596 | 2.166 | -4.93660 | 2531.29999 | .79200 | .81260 | .75430 | .75830 | .78130 | .99860 | .99870 | 494.29000 |
| .596 | 4.201 | -4.93840 | 2532.00000 | .79030 | .80690 | .75400 | .75670 | .77530 | .99820 | .99890 | 495.47000 |
| .596 | 6.274 | -4.93030 | 2532.00800 | .78940 | .80270 | .75330 | .75490 | .77490 | .99830 | .99900 | 494.89000 |
| .596 | 8.358 | -4.92160 | 2532.08000 | .78860 | .79950 | .75330 | .75490 | .76720 | .99810 | .99940 | 495.48000 |
| .596 | 10.463 | -4.90970 | 2532.70001 | .78780 | .79660 | .75330 | .75370 | .76420 | .99740 | .99880 | 494.92000 |
| .596 | 12.572 | -4.89490 | 2533.39999 | .78710 | .79270 | .75330 | .75370 | .76180 | .99630 | .99880 | 494.92000 |
| .597 | 14.669 | -4.87860 | 2533.39999 | .78680 | .79140 | .75190 | .75290 | .75940 | .99600 | .99850 | 497.82000 |
| .598 | 16.784 | -4.87860 | 2533.39999 | .78650 | .79060 | .74980 | .75010 | .75830 | .99300 | .99800 | 495.08000 |
| .597 | 18.883 | -4.90430 | 2533.39999 | .78640 | .79060 | .74760 | .74910 | .75500 | .98348 | .99680 | 495.66900 |
| .597 | 20.994 | -4.90660 | 2533.39999 | .78620 | .78990 | .74420 | .74910 | .75500 | .98380 | .99680 | 495.66900 |
| .597 | 23.086 | -4.90700 | 2533.39999 | .78590 | .78960 | .74300 | .74710 | .75320 | .97530 | .98380 | 496.08000 |
| .597 | 25.166 | -4.89860 | 2533.39999 | .78570 | .78830 | .73750 | .74430 | .75100 | .96530 | .98120 | 496.08000 |
| .598 | 26.161 | -4.87630 | 2533.39999 | .78650 | .78760 | .73970 | .74030 | .74850 | .95580 | .98910 | 497.82000 |
| | GRADIENT | -.00144 | .44106 | -.00116 | -.00393 | -.00022 | -.00106 | -.00415 | -.00014 | -.00004 | .41530 |

TABULATED DATA - 0A181 (ARC 11-97-87-084)

(BE7R40) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RUN NO. 261/ 0 RWL = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSP) |
|------|----------|----------|------------|---------|--------|---------|---------|---------|---------|---------|-----------|
| .299 | 1.120 | -1.66800 | 4128.29999 | .94130 | .92980 | .92980 | .92920 | .92950 | 1.00020 | .99990 | 243.25000 |
| .300 | 2.103 | -1.65388 | 4129.00000 | .94158 | .94120 | .92940 | .92890 | .92920 | .99980 | 1.00000 | 243.92000 |
| .300 | 4.110 | -1.64130 | 4129.00000 | .94158 | .94130 | .92960 | .92910 | .92910 | .99990 | 1.00000 | 243.92000 |
| .300 | 6.141 | -1.63440 | 4129.00000 | .94158 | .94130 | .92960 | .92900 | .92900 | 1.00000 | 1.00000 | 243.26000 |
| .299 | 8.178 | -1.64120 | 4129.00000 | .94150 | .94148 | .92980 | .92980 | .92980 | .99990 | 1.00000 | 243.26000 |
| .299 | 10.234 | -1.64350 | 4129.00000 | .94150 | .94140 | .93000 | .92940 | .92910 | .99950 | 1.00010 | 243.92000 |
| .300 | 12.306 | -1.64210 | 4129.00000 | .94150 | .94140 | .93000 | .92950 | .92910 | .99910 | 1.00000 | 243.92000 |
| .300 | 14.351 | -1.77238 | 4129.00000 | .94140 | .94150 | .93000 | .92950 | .92910 | .99960 | 1.00000 | 243.26000 |
| .299 | 16.419 | -1.83190 | 4129.00000 | .94140 | .94130 | .92980 | .92930 | .92910 | .99940 | 1.00000 | 243.92000 |
| .300 | 18.491 | -1.84360 | 4129.00000 | .94130 | .94130 | .92950 | .92920 | .92920 | .99910 | 1.00000 | 243.26000 |
| .299 | 20.571 | -1.84770 | 4129.00000 | .94130 | .94130 | .92950 | .92910 | .92910 | .99850 | 1.00000 | 242.58000 |
| .299 | 22.611 | -1.84190 | 4128.29999 | .94158 | .94130 | .92770 | .92870 | .92900 | .98770 | .99810 | 242.58000 |
| .299 | 24.656 | -1.82200 | 4128.29299 | .94150 | .94130 | .92770 | .92870 | .92900 | .98580 | .99750 | 242.59000 |
| .299 | 26.657 | -1.80868 | 4127.59998 | .94170 | .94140 | .92780 | .92840 | .92890 | .98580 | .99750 | 242.59000 |
| | GRADIENT | .00863 | .19958 | -.00002 | .08001 | -.00004 | -.00005 | -.00012 | -.00009 | .00003 | .19705 |

RUN NO. 266/ 0 RWL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSP) |
|------|----------|----------|------------|---------|---------|--------|--------|--------|--------|--------|-----------|
| .596 | 1.096 | -1.65260 | 2531.29999 | .78888 | .78870 | .75270 | .74600 | .74850 | .99900 | .99920 | 494.25000 |
| .596 | 2.127 | -1.65900 | 2531.29999 | .78680 | .78830 | .75300 | .74760 | .74660 | .99930 | .99910 | 495.46000 |
| .596 | 4.174 | -1.64330 | 2532.00000 | .78590 | .78760 | .75280 | .74820 | .74870 | .99910 | .99920 | 495.47000 |
| .596 | 6.254 | -1.64280 | 2532.00000 | .78580 | .78740 | .75350 | .74930 | .74930 | .99910 | .99880 | 495.47000 |
| .597 | 8.333 | -1.64580 | 2532.00000 | .78570 | .78700 | .75370 | .75000 | .74940 | .99870 | .99900 | 495.64000 |
| .596 | 10.439 | -1.64040 | 2532.00000 | .78550 | .78670 | .75320 | .75040 | .75000 | .99820 | .99898 | 495.47000 |
| .596 | 12.555 | -1.83260 | 2532.00000 | .78550 | .78650 | .75330 | .75080 | .75050 | .99800 | .99940 | 494.89000 |
| .597 | 14.645 | -1.79990 | 2532.70001 | .78530 | .78680 | .75290 | .75050 | .75050 | .99610 | .99880 | 495.65000 |
| .597 | 16.777 | -1.86040 | 2532.70001 | .78520 | .78690 | .75090 | .75020 | .75060 | .99370 | .99800 | 496.07000 |
| .597 | 18.904 | -1.86340 | 2532.70001 | .78500 | .78570 | .74590 | .74810 | .75010 | .98960 | .99720 | 496.07000 |
| .597 | 21.039 | -1.85660 | 2532.70001 | .78520 | .78570 | .74260 | .74680 | .74930 | .98550 | .98640 | 496.07000 |
| .597 | 23.120 | -1.84680 | 2532.70001 | .78510 | .78560 | .74068 | .74460 | .74810 | .97240 | .98470 | 496.07000 |
| .597 | 25.187 | -1.81828 | 2532.70001 | .78490 | .78540 | .73350 | .74128 | .74620 | .95810 | .98240 | 496.07000 |
| .597 | 26.172 | -1.80268 | 2532.70001 | .78500 | .78538 | .72820 | .73730 | .74400 | .95290 | .98060 | 496.07000 |
| | GRADIENT | .00347 | .24355 | -.00030 | -.00036 | .00001 | .08066 | .00006 | .00001 | .00001 | .32962 |

(BE7R41) (02 AUG 76)

PARAMETRIC DATA

BETA = .000
 AIRLON = .000
 ELEVON = .000
 BDFLAP = -7.170

ABLATED DATA - 0A161 (ARC 11-97-87-89)

ARC 11-97-87-89 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0360

RUN NO. 2607 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF) |
|------|--------|--------|------------|--------|--------|--------|--------|--------|---------|---------|-----------|
| .299 | 1.084 | .19260 | 4127.59998 | .94110 | .94110 | .93010 | .92910 | .92940 | 1.00010 | .99980 | 243.24000 |
| .299 | 2.096 | .20570 | 4127.59998 | .94130 | .94130 | .93000 | .92950 | .92940 | 1.00000 | 1.00000 | 242.59000 |
| .298 | 4.109 | .20700 | 4127.59998 | .94140 | .94140 | .93030 | .92950 | .92940 | 1.00000 | 1.00010 | 241.59000 |
| .298 | 6.136 | .21520 | 4127.59998 | .94160 | .94160 | .93030 | .92960 | .92930 | 1.00000 | 1.00000 | 242.59000 |
| .299 | 8.176 | .22210 | 4127.59998 | .94150 | .94150 | .93030 | .92970 | .92940 | 1.00000 | 1.00000 | 241.59000 |
| .298 | 10.210 | .22360 | 4127.59998 | .94170 | .94170 | .93060 | .92990 | .92970 | 1.00000 | 1.00000 | 241.91000 |
| .298 | 12.260 | .23940 | 4127.59998 | .94170 | .94160 | .93070 | .93000 | .92970 | 1.00000 | 1.00000 | 241.91000 |
| .298 | 14.305 | .24200 | 4127.59998 | .94170 | .94170 | .93070 | .93000 | .92990 | 1.00000 | 1.00000 | 241.91000 |
| .298 | 16.375 | .25030 | 4127.59998 | .94140 | .94140 | .93070 | .93010 | .92980 | 1.00000 | 1.00000 | 242.59000 |
| .298 | 18.445 | .24630 | 4128.29998 | .94130 | .94130 | .92950 | .92970 | .92950 | 1.00000 | 1.00000 | 242.59000 |
| .298 | 20.528 | .25320 | 4128.29998 | .94130 | .94130 | .92950 | .92980 | .92950 | 1.00000 | 1.00000 | 242.59000 |
| .299 | 22.576 | .26020 | 4128.29998 | .94120 | .94120 | .92950 | .92980 | .92950 | 1.00000 | 1.00000 | 242.59000 |
| .299 | 24.627 | .26680 | 4128.29998 | .94150 | .94150 | .92950 | .92980 | .92950 | 1.00000 | 1.00000 | 242.59000 |
| .299 | 26.648 | .00418 | .00000 | .00000 | .00000 | .00000 | .00813 | .00000 | 1.00000 | 1.00000 | 242.59000 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OIPSF) |
|------|--------|--------|------------|---------|---------|---------|--------|--------|---------|---------|-----------|
| .595 | 1.090 | .19810 | 2530.60001 | .78630 | .78670 | .75390 | .74470 | .74520 | .99950 | .99950 | 493.69000 |
| .596 | 2.124 | .20270 | 2531.29999 | .78590 | .78630 | .75250 | .74590 | .74540 | .99910 | .99910 | 495.46000 |
| .595 | 4.175 | .20870 | 2531.29999 | .78580 | .78630 | .75370 | .74740 | .74610 | .99890 | .99890 | 494.29000 |
| .595 | 6.246 | .21260 | 2531.29999 | .78570 | .78620 | .75350 | .74830 | .74690 | .99890 | .99890 | 493.71000 |
| .596 | 8.339 | .21390 | 2532.70001 | .78520 | .78570 | .75310 | .74900 | .74730 | .99950 | .99950 | 496.08000 |
| .597 | 10.429 | .21190 | 2533.39999 | .78500 | .78540 | .75310 | .74960 | .74780 | .99940 | .99940 | 497.26000 |
| .597 | 12.522 | .21000 | 2534.10001 | .78460 | .78520 | .75310 | .74980 | .74830 | .99920 | .99920 | 497.67000 |
| .597 | 14.630 | .20810 | 2534.10001 | .78460 | .78520 | .75360 | .74960 | .74830 | .99930 | .99930 | 497.26000 |
| .597 | 16.750 | .20160 | 2534.10001 | .78440 | .78520 | .75320 | .74930 | .74830 | .99920 | .99920 | 497.26000 |
| .598 | 18.893 | .20460 | 2534.89999 | .78440 | .78520 | .75310 | .74930 | .74830 | .99910 | .99910 | 497.26000 |
| .598 | 21.001 | .20720 | 2535.60001 | .78420 | .78520 | .75310 | .74930 | .74830 | .99920 | .99920 | 497.26000 |
| .596 | 23.099 | .21070 | 2535.60001 | .78420 | .78520 | .75310 | .74930 | .74830 | .99920 | .99920 | 497.26000 |
| .596 | 25.164 | .20910 | 2535.60001 | .78420 | .78520 | .75310 | .74930 | .74830 | .99920 | .99920 | 497.26000 |
| .598 | 26.150 | .00936 | .19489 | -.00015 | -.00008 | -.00003 | .00096 | .00013 | 1.00010 | 1.00010 | 497.26000 |

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

(BETRA-2) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ATLIRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0'
LREF = 474.8000 IN. YMRP = .0000 IN. Y0'
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0'
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|------|----------|---------|------------|--------|--------|--------|--------|--------|---------|---------|-----------|
| .298 | 1.000 | 2.24970 | 4126.90002 | 94140 | 94630 | 93050 | 92910 | 92890 | 1.00020 | 1.00000 | 240.58000 |
| .298 | 2.101 | 2.25250 | 4126.90002 | 94160 | 94060 | 93050 | 92940 | 92910 | 1.00080 | 1.00020 | 240.58000 |
| .298 | 4.112 | 2.27070 | 4126.90002 | 94170 | 94090 | 93050 | 92960 | 92920 | 1.00010 | 1.00000 | 240.58000 |
| .298 | 6.147 | 2.28660 | 4126.90002 | 94160 | 94100 | 93080 | 92970 | 92930 | 1.00040 | 1.00000 | 240.58000 |
| .297 | 8.189 | 2.29800 | 4126.90002 | 94170 | 94120 | 93080 | 92980 | 92940 | 1.00000 | 1.00000 | 239.92000 |
| .297 | 10.247 | 2.30990 | 4126.90002 | 94160 | 94120 | 93080 | 92980 | 92940 | 1.00000 | 1.00000 | 239.92000 |
| .297 | 12.330 | 2.34170 | 4126.90002 | 94170 | 94130 | 93110 | 93010 | 92960 | 1.00020 | 1.00020 | 239.24000 |
| .297 | 14.456 | 2.25970 | 4126.90002 | 94170 | 94140 | 93070 | 93000 | 92960 | 1.00000 | 1.00000 | 241.23000 |
| .298 | 16.623 | 2.24840 | 4127.90002 | 94140 | 94130 | 93070 | 93020 | 92980 | 1.00000 | 1.00000 | 241.23000 |
| .298 | 18.579 | 2.23810 | 4126.90002 | 94160 | 94130 | 93060 | 93010 | 92980 | 1.00000 | 1.00000 | 242.58000 |
| .298 | 20.629 | 2.23420 | 4126.90002 | 94150 | 94120 | 93050 | 92970 | 92960 | 1.00000 | 1.00000 | 242.58000 |
| .299 | 22.661 | 2.24480 | 4126.90002 | 94150 | 94110 | 92930 | 92910 | 92920 | 1.00000 | 1.00000 | 241.23000 |
| .299 | 24.686 | 2.26980 | 4127.90002 | 94130 | 94080 | 92870 | 92870 | 92910 | 1.00000 | 1.00000 | 243.24000 |
| .299 | 26.692 | 2.28240 | 4127.90002 | 94140 | 94100 | 92770 | 92870 | 92910 | 1.00000 | 1.00000 | 243.24000 |
| | GRADIENT | .00725 | .00000 | .00009 | .00019 | .00000 | .00016 | .00009 | .00002 | .00001 | .00000 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSF1 |
|------|----------|---------|------------|---------|---------|--------|--------|--------|--------|--------|-----------|
| .587 | 1.121 | 2.25250 | 2532.70001 | 78530 | 78570 | 75210 | 74420 | 74510 | 99950 | 99950 | 496.65000 |
| .587 | 2.132 | 2.27630 | 2534.10001 | 78500 | 78540 | 75190 | 74550 | 74540 | 99950 | 99950 | 497.26000 |
| .588 | 4.187 | 2.29490 | 2534.10001 | 78490 | 78530 | 7510 | 74670 | 74590 | 99950 | 99950 | 498.42000 |
| .587 | 6.268 | 2.30840 | 2534.10001 | 78470 | 78510 | 75240 | 74780 | 74650 | 99950 | 99950 | 497.26000 |
| .589 | 8.335 | 2.29710 | 2568.79999 | 77440 | 77460 | 75310 | 74930 | 74740 | 99910 | 99910 | 501.30000 |
| .586 | 10.488 | 2.31060 | 2568.79999 | 77450 | 77480 | 75350 | 75010 | 74830 | 99950 | 99950 | 502.55000 |
| .586 | 12.613 | 2.30740 | 2568.79999 | 77420 | 77470 | 75420 | 75070 | 74900 | 99900 | 99900 | 503.14000 |
| .586 | 14.745 | 2.29030 | 2568.79999 | 77400 | 77500 | 75200 | 75080 | 74950 | 99950 | 99950 | 502.57000 |
| .586 | 16.800 | 2.28650 | 2569.50000 | 77400 | 77460 | 75040 | 75010 | 74900 | 99950 | 99950 | 504.98000 |
| .586 | 19.004 | 2.28270 | 2569.50000 | 77370 | 77440 | 74930 | 74890 | 74820 | 99950 | 99950 | 504.98000 |
| .586 | 21.104 | 2.27980 | 2570.20001 | 77360 | 77440 | 74800 | 74800 | 74840 | 99950 | 99950 | 502.00000 |
| .585 | 23.192 | 2.28400 | 2569.50000 | 77380 | 77460 | 74720 | 74720 | 74720 | 99950 | 99950 | 503.73000 |
| .587 | 25.233 | 2.30570 | 2570.20001 | 77350 | 77480 | 73930 | 73930 | 74500 | 99950 | 99950 | 503.73000 |
| .586 | 26.202 | 2.30570 | 2570.20001 | 77350 | 77480 | 73930 | 73930 | 74500 | 99950 | 99950 | 503.73000 |
| | GRADIENT | .01313 | .38963 | -.00012 | -.00012 | .00001 | .00078 | .00065 | .00004 | .00000 | .57535 |

(BETW43) (02 AUG 76)

TABULATED DATA - OX161 (ARC 11-87-87-094)

ARC 11-87-87-894 OX161 ORBITER - PROBE

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AIRRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. XG
LREF = 474.8800 IN. YMRP = .0800 IN. YO
BREF = 936.6800 IN. ZMRP = 373.0000 IN. ZO
SCALE = .0380

RUN NO. 2587 0 RV/L = 3.96 GRADIENT INTERVAL = -5.00V 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0 (PSE) |
|------|----------|---------|------------|--------|--------|--------|--------|--------|---------|---------|-----------|
| .297 | 1.119 | 5.31100 | 4128.29989 | .93760 | .92390 | .93030 | .92450 | .94440 | 1.00010 | .99890 | 239.25000 |
| .297 | 2.117 | 5.31810 | 4128.29998 | .93950 | .92770 | .95050 | .92970 | .91730 | 1.00000 | 1.00000 | 239.25000 |
| .297 | 4.137 | 5.33120 | 4126.29999 | .93936 | .93070 | .93850 | .92670 | .91980 | .99990 | 1.00810 | 239.91000 |
| .297 | 6.176 | 5.33870 | 4126.29999 | .93970 | .93050 | .93050 | .92730 | .92160 | 1.00010 | 1.00806 | 239.91000 |
| .296 | 8.226 | 5.34490 | 4128.29999 | .94020 | .93490 | .93080 | .92800 | .92330 | 1.00010 | 1.00810 | 239.25000 |
| .297 | 10.302 | 5.34180 | 4128.29999 | .94050 | .93520 | .93080 | .92860 | .92460 | .99980 | .99990 | 239.25000 |
| .296 | 12.370 | 5.34910 | 4128.29998 | .94060 | .93740 | .93100 | .92900 | .92560 | 1.00020 | 1.00020 | 239.91000 |
| .297 | 14.447 | 5.35510 | 4128.29999 | .94090 | .93820 | .93090 | .92940 | .92670 | .99840 | .99890 | 241.92000 |
| .298 | 16.508 | 5.30950 | 4128.29999 | .94030 | .93800 | .93030 | .92880 | .92690 | .99840 | .99840 | 241.92000 |
| .298 | 18.569 | 5.31420 | 4129.00000 | .94040 | .93870 | .93070 | .92890 | .92730 | .99560 | .99560 | 241.92000 |
| .298 | 20.618 | 5.32420 | 4129.00000 | .94060 | .93900 | .92910 | .92880 | .92770 | .99160 | .99160 | 240.56000 |
| .297 | 24.662 | 5.34740 | 4129.00000 | .94070 | .93948 | .92880 | .92850 | .92790 | .98450 | .98450 | 241.92000 |
| .298 | 25.699 | 5.36410 | 4129.00000 | .94080 | .93970 | .92870 | .92840 | .92790 | .00006 | .00006 | .23407 |
| | GRADIENT | | .00566 | .00054 | .00214 | .00006 | .00069 | .00171 | | | |

RUN NO. 2597 0 RV/L = 4.22 GRADIENT INTERVAL = -5.00V 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0 (PSE) |
|------|----------|---------|------------|---------|---------|---------|--------|--------|--------|--------|-----------|
| .595 | 1.187 | 5.37510 | 2568.10001 | .77430 | .77470 | .75130 | .74390 | .74430 | .99940 | .99900 | 501.39000 |
| .596 | 2.204 | 5.37240 | 2568.10001 | .77390 | .77410 | .75100 | .74500 | .74440 | .99910 | .99920 | 501.96000 |
| .596 | 4.262 | 5.37190 | 2568.10001 | .77370 | .77400 | .75100 | .74620 | .74590 | .99950 | .99940 | 502.95000 |
| .595 | 6.329 | 5.35290 | 2568.10001 | .77370 | .77370 | .75170 | .74700 | .74550 | .99920 | .99940 | 501.39000 |
| .595 | 8.421 | 5.33080 | 2568.10001 | .77370 | .77350 | .75230 | .74790 | .74550 | .99930 | .99920 | 501.96000 |
| .595 | 10.505 | 5.31520 | 2568.79999 | .77330 | .77330 | .75280 | .74860 | .74650 | .99920 | .99920 | 501.39000 |
| .595 | 12.591 | 5.30420 | 2568.79999 | .77330 | .77320 | .75270 | .74920 | .74720 | .99940 | .99940 | 502.55000 |
| .596 | 14.673 | 5.31540 | 2568.79999 | .77330 | .77310 | .75130 | .74920 | .74760 | .99910 | .99910 | 502.55000 |
| .596 | 16.769 | 5.32060 | 2569.50002 | .77330 | .77280 | .74920 | .74860 | .74760 | .99890 | .99890 | 499.05000 |
| .594 | 18.865 | 5.34180 | 2568.79999 | .77330 | .77310 | .74990 | .74760 | .74780 | .99800 | .99800 | 500.21000 |
| .594 | 20.931 | 5.35640 | 2568.10001 | .77330 | .77300 | .74700 | .74730 | .74760 | .99730 | .99730 | 500.81000 |
| .594 | 23.075 | 5.36500 | 2568.79999 | .77330 | .77300 | .74590 | .74590 | .74700 | .96200 | .96200 | 500.81000 |
| .595 | 25.155 | 5.37020 | 2569.50000 | .77310 | .77280 | .74350 | .74360 | .74580 | .94250 | .94250 | 500.81000 |
| .595 | 26.117 | 5.37890 | 2568.79999 | .77320 | .77280 | .73160 | .74410 | .74440 | .94140 | .94140 | 500.81000 |
| | GRADIENT | | -.00092 | -.00020 | -.00006 | -.00006 | .00072 | .00024 | .00006 | .00006 | .36680 |

(BETRAY) (02 AUG 76)

TABLATED DATA - 0A16J (ARC 11-97-094)

ARC 11-97-094 0A16J ORBITER + PROBES

PARAMETRIC DATA

BETA = 0.000 ELEVON = .000
AIRFOIL = .000 SOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|------|----------|---------|------------|--------|--------|--------|--------|---------|---------|---------|-----------|
| .295 | 1.186 | 8.35750 | 4125.50000 | .62860 | .00000 | .92800 | .64640 | .77500 | 1.00000 | 1.00000 | 235.56000 |
| .294 | 2.174 | 8.37540 | 4126.90002 | .71260 | .00000 | .92180 | .71410 | .76310 | .99990 | 1.00010 | 235.24000 |
| .295 | 4.182 | 8.37530 | 4127.59998 | .77350 | .63750 | .92240 | .76510 | .76610 | 1.00000 | 1.00000 | 235.90000 |
| .295 | 6.217 | 8.37270 | 4128.29999 | .81830 | .68570 | .92360 | .80430 | .77810 | .99990 | .99990 | 237.25000 |
| .295 | 8.253 | 8.37760 | 4128.29999 | .85120 | .72990 | .92490 | .83420 | .79420 | 1.00000 | .99990 | 237.92000 |
| .295 | 10.319 | 8.37200 | 4128.29999 | .87520 | .76850 | .92520 | .85700 | .81170 | .99990 | .99990 | 236.58000 |
| .295 | 12.372 | 8.37380 | 4128.29999 | .89220 | .80190 | .92740 | .87460 | .82210 | .99990 | .99990 | 236.48000 |
| .295 | 14.435 | 8.37670 | 4128.29999 | .90550 | .82930 | .92820 | .88770 | .84470 | .99990 | .99990 | 236.58000 |
| .295 | 16.477 | 8.35550 | 4128.29999 | .91500 | .85210 | .92830 | .89760 | .85880 | .99990 | .99990 | 237.92000 |
| .295 | 18.532 | 8.35780 | 4128.29999 | .92190 | .87060 | .92890 | .90530 | .87120 | .99990 | .99990 | 237.25000 |
| .295 | 20.574 | 8.36760 | 4128.29999 | .92700 | .88540 | .92930 | .91540 | .88160 | .99990 | .99990 | 237.25000 |
| .294 | 22.587 | 8.38300 | 4128.29999 | .93060 | .89730 | .92930 | .91540 | .89040 | .99990 | .99990 | 235.91000 |
| .294 | 24.599 | 8.40500 | 4128.29999 | .93330 | .90560 | .92920 | .91850 | .89770 | .99990 | .99990 | 235.91000 |
| .295 | 25.580 | 8.42800 | 4128.29999 | .93530 | .91410 | .92920 | .92110 | .90370 | .99990 | .99990 | 237.25000 |
| | GRADIENT | .00507 | .64938 | .04573 | .22809 | .00073 | .03754 | -.00232 | .00001 | -.00004 | -.14573 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSE) |
|------|----------|---------|------------|---------|---------|--------|--------|--------|--------|--------|-----------|
| .595 | 1.188 | 8.42910 | 2567.39999 | .77450 | .77420 | .74970 | .74470 | .74540 | .99990 | .99990 | 500.20000 |
| .595 | 2.204 | 8.43240 | 2567.39999 | .77430 | .77430 | .74970 | .74570 | .74560 | .99990 | .99990 | 500.20000 |
| .595 | 4.256 | 8.42870 | 2567.39999 | .77410 | .77400 | .75020 | .74620 | .74580 | .99990 | .99990 | 500.78000 |
| .595 | 6.336 | 8.42250 | 2568.10001 | .77390 | .77380 | .74960 | .74650 | .74590 | .99990 | .99990 | 500.80000 |
| .594 | 8.417 | 8.43010 | 2568.10001 | .77360 | .77350 | .74960 | .74680 | .74600 | .99990 | .99990 | 500.21000 |
| .595 | 10.475 | 8.42330 | 2568.10001 | .77360 | .77350 | .75060 | .74720 | .74620 | .99990 | .99990 | 500.81000 |
| .595 | 12.641 | 8.41790 | 2568.79999 | .77330 | .77310 | .75100 | .74740 | .74630 | .99990 | .99990 | 501.59000 |
| .595 | 14.748 | 8.42180 | 2568.79999 | .77330 | .77310 | .74850 | .74710 | .74640 | .99990 | .99990 | 502.55000 |
| .596 | 16.829 | 8.40560 | 2568.79999 | .77330 | .77310 | .74830 | .74690 | .74630 | .99990 | .99990 | 504.30000 |
| .597 | 18.932 | 8.41200 | 2568.79999 | .77320 | .77310 | .74510 | .74600 | .74630 | .99990 | .99990 | 499.64000 |
| .594 | 21.020 | 8.42030 | 2568.79999 | .77320 | .77310 | .74320 | .74490 | .74580 | .99990 | .99990 | 500.82000 |
| .595 | 23.079 | 8.42720 | 2569.50000 | .77310 | .77260 | .74220 | .74350 | .74500 | .99990 | .99990 | 500.82000 |
| .595 | 25.131 | 8.43860 | 2569.50000 | .77310 | .77270 | .73990 | .74200 | .74400 | .99990 | .99990 | 500.82000 |
| .596 | 26.100 | 8.44420 | 2569.50000 | .77310 | .77280 | .73970 | .73970 | .74290 | .99990 | .99990 | 502.57000 |
| | GRADIENT | -.00037 | .00003 | -.00013 | -.00008 | .00017 | .00045 | .00005 | .00001 | .00013 | -.20262 |

(BETRUSA (02 AUG 78)

PARAMETRIC DATA

BETA = -5.000 ELEVON = 15.000
AILRON = .000 BOFLAP = -7.178

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6600 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 276 / 0 RVL = 3.91 GRADIENT INTERVAL = -5.00/ 9.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | DIPSF) |
|------|----------|----------|------------|--------|--------|--------|--------|--------|--------|---------|-----------|
| .296 | .194 | -4.89690 | 4102.90002 | .94030 | .93980 | .92860 | .92810 | .92830 | .99990 | 1.00000 | 237.15000 |
| .296 | 2.156 | -4.89690 | 4102.90002 | .94040 | .94010 | .92910 | .92820 | .92830 | .99990 | 1.00010 | 236.54000 |
| .296 | 4.185 | -4.89440 | 4102.90002 | .94040 | .94030 | .92940 | .92850 | .92840 | .95970 | 1.00000 | 237.15000 |
| .296 | 6.213 | -4.88860 | 4102.90002 | .94050 | .94040 | .92930 | .92850 | .92830 | .95970 | 1.00030 | 236.54000 |
| .296 | 8.252 | -4.88380 | 4103.59998 | .94020 | .94010 | .92920 | .92840 | .92830 | .99950 | 1.00010 | 236.50000 |
| .296 | 10.339 | -4.87440 | 4103.59998 | .94020 | .94030 | .92920 | .92850 | .92850 | .99960 | .99960 | 237.20000 |
| .296 | 12.365 | -4.84240 | 4103.59998 | .94020 | .94020 | .92970 | .92860 | .92860 | .99960 | .99960 | 237.20000 |
| .297 | 14.411 | -4.81730 | 4103.59998 | .94000 | .94000 | .92970 | .92900 | .92870 | .99950 | .99950 | 237.20000 |
| .296 | 16.451 | -4.81530 | 4103.59998 | .94000 | .94000 | .92970 | .92900 | .92870 | .99950 | .99950 | 237.20000 |
| .295 | 18.516 | -4.84860 | 4103.59998 | .94000 | .94000 | .92930 | .92880 | .92870 | .99930 | .99930 | 237.87000 |
| .297 | 20.579 | -4.85980 | 4103.59998 | .93990 | .93990 | .92870 | .92880 | .92870 | .99940 | .99940 | 236.53000 |
| .296 | 22.625 | -4.86660 | 4103.59998 | .93990 | .93990 | .92790 | .92840 | .92860 | .99950 | .99950 | 237.20000 |
| .296 | 24.676 | -4.86310 | 4103.59998 | .93990 | .93990 | .92650 | .92780 | .92830 | .99750 | .99750 | 237.20000 |
| .296 | 25.688 | -4.85820 | 4103.59998 | .93990 | .93980 | .92600 | .92790 | .92790 | .98390 | .98390 | 237.20000 |
| | GRADIENT | .00063 | -.00004 | .00003 | .00010 | .00015 | .00010 | .00003 | .00000 | .00000 | .00019 |

RUN NO. 277 / 0

RVL = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | QIPSF) |
|------|----------|----------|------------|---------|---------|---------|---------|---------|--------|--------|-----------|
| .597 | 2.238 | -4.94770 | 2520.00000 | 1.32640 | 1.46987 | .80140 | 1.31730 | 1.30590 | .99830 | .99770 | 494.08000 |
| .597 | 4.305 | -4.92880 | 2521.39399 | 1.18250 | 1.39390 | .79550 | 1.18480 | 1.26830 | .93880 | .92650 | 494.69000 |
| .597 | 6.384 | -4.91990 | 2522.10001 | 1.07750 | 1.30970 | .78900 | 1.08350 | 1.21640 | .99830 | .92590 | 494.12000 |
| .597 | 8.471 | -4.91350 | 2522.10001 | 1.00070 | 1.22770 | .78290 | 1.00620 | 1.15920 | .99650 | .92590 | 494.71000 |
| .599 | 10.574 | -4.90240 | 2522.10001 | .94490 | 1.15320 | .77750 | .94750 | 1.10330 | .99830 | .92590 | 497.05000 |
| .598 | 12.672 | -4.89610 | 2522.79999 | .90350 | 1.08690 | .77200 | .90180 | 1.05020 | .99690 | .92590 | 496.29000 |
| .597 | 14.764 | -4.89160 | 2522.10001 | .87340 | 1.03080 | .76720 | .86700 | 1.00300 | .99830 | .92590 | 494.11000 |
| .596 | 16.850 | -4.88420 | 2522.10001 | .85170 | .98430 | .75470 | .83970 | .95170 | .99770 | .92590 | 493.54000 |
| .596 | 18.973 | -4.88200 | 2522.10001 | .82280 | .94520 | .74950 | .81710 | .92590 | .99770 | .92590 | 493.54000 |
| .596 | 21.077 | -4.93900 | 2522.10001 | .81410 | .91350 | .74350 | .79260 | .89360 | .96550 | .99570 | 482.56000 |
| .597 | 23.157 | -4.90820 | 2522.10001 | .80730 | .88800 | .73980 | .77250 | .84300 | .96080 | .99570 | 494.71000 |
| .599 | 25.170 | -4.81030 | 2522.10001 | .80260 | .86700 | .73980 | .72500 | .82220 | .99440 | .99120 | 496.29000 |
| .597 | 26.154 | -4.87610 | 2522.10001 | .80260 | .85040 | .72360 | .72360 | .80380 | .99530 | .99530 | 494.12000 |
| .597 | GRADIENT | .00693 | .51610 | .79870 | -.03937 | -.00305 | -.05745 | -.02201 | .00015 | .00129 | .00987 |

ORIGINAL PAGE IS
OF POOR QUALITY

(18E7R4B) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = 15.000
AHLFRON = .000 BOFLAP = -7.170

TABULATED DATA - 0A16 (ARC 11-97-87-09)

ARC 11-97-87-09 0A16 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 50. FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300.

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|----------|------------|--------|--------|--------|--------|--------|---------|---------|-----------|
| .297 | .175 | -1.87260 | 4105.00000 | .93960 | .92860 | .92860 | .92780 | .92800 | 1.00080 | 1.00020 | 238.53000 |
| .297 | 2.154 | -1.84880 | 4105.00000 | .93950 | .92840 | .92840 | .92780 | .92790 | 1.00000 | .99990 | 239.20000 |
| .297 | 4.163 | -1.83540 | 4105.00000 | .93980 | .92830 | .92830 | .92780 | .92790 | 1.00020 | 1.00010 | 239.20000 |
| .297 | 6.192 | -1.83090 | 4105.00000 | .93976 | .92830 | .92830 | .92790 | .92790 | 1.00000 | 1.00010 | 238.53000 |
| .297 | 8.226 | -1.83360 | 4105.00000 | .93970 | .92830 | .92830 | .92820 | .92790 | .99980 | 1.00010 | 238.53000 |
| .297 | 10.263 | -1.83580 | 4105.00000 | .93968 | .92830 | .92830 | .92820 | .92790 | .99970 | 1.00020 | 238.53000 |
| .297 | 12.354 | -1.83960 | 4105.00000 | .93970 | .92830 | .92830 | .92850 | .92800 | .99950 | 1.00010 | 238.53000 |
| .297 | 14.470 | -1.84370 | 4105.00000 | .93940 | .92840 | .92840 | .92840 | .92800 | .99970 | 1.00010 | 238.53000 |
| .297 | 16.540 | -1.84750 | 4105.00000 | .93950 | .92860 | .92860 | .92860 | .92820 | .99980 | .99970 | 239.20000 |
| .297 | 18.540 | -1.84950 | 4105.00000 | .93956 | .92860 | .92860 | .92860 | .92830 | .99980 | .99980 | 239.20000 |
| .296 | 20.617 | -1.84940 | 4105.00000 | .93950 | .92860 | .92860 | .92870 | .92830 | .99900 | .99900 | 237.20000 |
| .297 | 22.655 | -1.84810 | 4105.00000 | .93920 | .92870 | .92870 | .92840 | .92820 | .99030 | .99870 | 239.20000 |
| .297 | 24.695 | -1.84980 | 4105.00000 | .93930 | .92870 | .92870 | .92840 | .92810 | .98600 | .99780 | 239.20000 |
| .297 | 25.699 | -1.80940 | 4104.29999 | .93948 | .92870 | .92870 | .92740 | .92800 | .98420 | .99770 | 237.67000 |
| | GRADIENT | .00953 | -.00004 | .00000 | .00002 | .00008 | .00000 | .08005 | .00005 | .00002 | .16771 |

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|----------|------------|---------|---------|---------|---------|---------|--------|---------|-----------|
| .596 | .184 | -1.85200 | 2520.00000 | .82140 | .79630 | .74820 | .74980 | .77970 | .99920 | .99920 | 492.34000 |
| .596 | 2.289 | -1.85810 | 2520.00000 | .81430 | .79420 | .74770 | .74720 | .77180 | .99930 | .99930 | 492.93000 |
| .597 | 4.284 | -1.84120 | 2522.00001 | .80870 | .79258 | .74750 | .74640 | .76558 | .99950 | .99950 | 494.12000 |
| .596 | 6.363 | -1.85070 | 2522.00001 | .80450 | .79140 | .74760 | .74630 | .76110 | .99920 | .99920 | 493.54000 |
| .596 | 8.455 | -1.83950 | 2522.00001 | .80100 | .79060 | .74800 | .74630 | .75780 | .99950 | .99950 | 495.54000 |
| .599 | 10.569 | -1.82730 | 2522.00001 | .79830 | .78930 | .74760 | .74610 | .75520 | .99950 | .99950 | 495.29000 |
| .598 | 12.687 | -1.82650 | 2522.00001 | .79620 | .78950 | .74770 | .74600 | .75320 | .99960 | .99960 | 494.12000 |
| .597 | 14.741 | -1.82790 | 2522.00001 | .79450 | .78920 | .74570 | .74550 | .75170 | .99880 | .99880 | 494.69000 |
| .597 | 16.873 | -1.87630 | 2521.39999 | .79350 | .78820 | .74400 | .74400 | .75010 | .99230 | .99830 | 492.38000 |
| .595 | 18.999 | -1.87510 | 2522.00001 | .79220 | .78810 | .74110 | .74180 | .74810 | .99720 | .99720 | 492.96000 |
| .596 | 21.118 | -1.86350 | 2522.00001 | .79140 | .78850 | .73710 | .73900 | .74616 | .97930 | .99630 | 495.30000 |
| .597 | 23.192 | -1.85330 | 2522.00001 | .79060 | .78830 | .72870 | .73550 | .74330 | .96630 | .99440 | 495.30000 |
| .598 | 25.192 | -1.81920 | 2522.00001 | .78920 | .78830 | .71490 | .72980 | .74020 | .95510 | .99220 | 494.29000 |
| .597 | 26.160 | -1.80400 | 2521.39999 | .78910 | .78850 | .70810 | .72350 | .73620 | .95150 | .99070 | 494.69000 |
| | GRADIENT | .00264 | .51232 | -.00310 | -.00883 | -.00024 | -.00044 | -.00346 | .00002 | -.00002 | .43425 |

(BETRYZ) (02 AUG 76)

TABLATED DATA - 0A16I (ARC 11-97-87-084)

ARC 11-97-87-084 0A16I ORBITER - PROBES

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 274 0 RWL = 3.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSFK |
|------|----------|--------|------------|--------|--------|--------|--------|--------|---------|---------|-----------|
| .296 | .143 | .18390 | 4105.70001 | .93940 | .93840 | .92610 | .92710 | .92660 | 1.00820 | 1.00000 | 239.87000 |
| .297 | 2.148 | .20190 | 4105.70001 | .93950 | .93870 | .92630 | .92730 | .92690 | 1.00030 | 1.00010 | 239.87000 |
| .298 | 4.160 | .20270 | 4105.70001 | .93950 | .93890 | .92670 | .92740 | .92690 | 1.00030 | 1.00030 | 239.21000 |
| .299 | 6.183 | .20680 | 4105.70001 | .93950 | .93900 | .92680 | .92770 | .92720 | 1.00000 | 1.00010 | 239.87000 |
| .297 | 8.225 | .21270 | 4105.70001 | .93950 | .93900 | .92690 | .92790 | .92730 | .99990 | .99990 | 239.21000 |
| .297 | 10.265 | .21230 | 4105.70001 | .93940 | .93910 | .92620 | .92740 | .92700 | .99980 | 1.00020 | 239.21000 |
| .297 | 12.304 | .21050 | 4105.70001 | .93940 | .93810 | .92920 | .92830 | .92770 | .99940 | 1.00010 | 239.21000 |
| .297 | 14.350 | .22980 | 4105.70001 | .93930 | .93910 | .92960 | .92840 | .92770 | .99970 | .99990 | 239.21000 |
| .297 | 16.428 | .22870 | 4105.70001 | .93930 | .93800 | .92980 | .92870 | .92780 | .99770 | .99980 | 239.21000 |
| .297 | 18.489 | .23880 | 4105.70001 | .93930 | .93800 | .92990 | .92870 | .92780 | .99660 | .99960 | 239.21000 |
| .297 | 20.571 | .23060 | 4105.70001 | .93940 | .93890 | .92990 | .92860 | .92780 | .99360 | .99940 | 239.21000 |
| .298 | 22.617 | .23240 | 4105.70001 | .93940 | .93890 | .92960 | .92860 | .92780 | .99040 | .99870 | 239.87000 |
| .298 | 24.665 | .24010 | 4105.70001 | .93930 | .93880 | .92730 | .92800 | .92800 | .98590 | .99610 | 239.87000 |
| .298 | 25.681 | .23340 | 4105.70001 | .93930 | .93890 | .92620 | .92750 | .92770 | .98320 | .99780 | 239.87000 |
| | GRADIENT | .00469 | .00000 | .00002 | .00010 | .00015 | .00007 | .00002 | .00002 | .00007 | .16439 |

RUN NO. 279 0 RWL = 4.20 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PF | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q1PSFK |
|------|----------|--------|------------|---------|---------|--------|--------|---------|---------|---------|-----------|
| .596 | .170 | .20810 | 2520.00000 | .78960 | .79110 | .74490 | .73270 | .73550 | .99920 | .99900 | 492.92000 |
| .600 | 2.230 | .22680 | 2537.70001 | .78440 | .78590 | .74340 | .73160 | .73490 | 1.00040 | 1.00050 | 501.40000 |
| .592 | 4.285 | .22740 | 2548.29999 | .78120 | .78260 | .74880 | .73330 | .73870 | .99980 | .99940 | 492.85000 |
| .594 | 6.363 | .23740 | 2555.39999 | .77870 | .78010 | .74710 | .73490 | .73860 | .99940 | .99930 | 497.65000 |
| .595 | 8.464 | .24040 | 2556.10001 | .77830 | .77960 | .74760 | .73740 | .73250 | .99910 | .99910 | 498.24000 |
| .597 | 10.573 | .24040 | 2556.79999 | .77790 | .77910 | .74700 | .73910 | .73420 | .99900 | .99910 | 500.59000 |
| .595 | 12.685 | .23760 | 2555.39999 | .77800 | .77910 | .74810 | .73670 | .73670 | .99930 | .99930 | 498.81000 |
| .594 | 14.751 | .23510 | 2555.39999 | .77780 | .77890 | .74650 | .74220 | .73810 | .99950 | .99910 | 497.07000 |
| .595 | 16.853 | .23390 | 2555.39999 | .77780 | .77890 | .74320 | .74200 | .73940 | .99880 | .99880 | 498.81000 |
| .595 | 18.963 | .23390 | 2555.39999 | .77700 | .77850 | .73910 | .74110 | .73870 | .99630 | .99800 | 498.81000 |
| .595 | 21.088 | .22090 | 2556.10001 | .77760 | .77810 | .73870 | .73830 | .73870 | .99630 | .99488 | 498.81000 |
| .595 | 23.170 | .21900 | 2556.79999 | .77760 | .77810 | .73220 | .73680 | .73870 | .95260 | .99488 | 498.81000 |
| .595 | 25.169 | .22990 | 2556.10001 | .77760 | .77820 | .73070 | .73070 | .73690 | .95180 | .99270 | 499.41000 |
| | GRADIENT | .00470 | 6.69000 | -.00205 | -.00207 | .00095 | .00015 | -.00117 | .00015 | .00015 | -.01823 |

TABULATED DATA - 0A161 (ARC 11-97-87-08%)

ARC 11-97-87-09% 0A161 ORBITER + PROBES

(BETR48) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = 15.000
ALIRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1078.8800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.8800 IN. ZMRP = 375.0800 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|--------|---------|------------|--------|--------|--------|--------|--------|---------|---------|-----------|
| .296 | 142 | 2.26150 | 4105.70001 | .93570 | .92170 | .92770 | .92170 | .91020 | 1.00020 | 1.00020 | 239.87000 |
| .297 | 2.156 | 2.26480 | 4105.70001 | .93580 | .92570 | .92800 | .92320 | .91360 | 1.00000 | 1.00000 | 239.21000 |
| .298 | 4.188 | 2.27720 | 4105.70001 | .93740 | .92670 | .92800 | .92410 | .91620 | 1.00010 | 1.00020 | 239.87000 |
| .298 | 6.204 | 2.28640 | 4105.70001 | .93798 | .92110 | .92836 | .92500 | .91840 | 1.00010 | 1.00010 | 239.21000 |
| .298 | 8.246 | 2.29330 | 4105.70001 | .93820 | .92290 | .92858 | .92570 | .92030 | 1.00000 | 1.00020 | 239.87000 |
| .297 | 10.297 | 2.31030 | 4105.70001 | .93850 | .92420 | .92880 | .92640 | .92180 | .99980 | 1.00010 | 239.54000 |
| .298 | 12.397 | 2.30980 | 4105.70001 | .93870 | .92530 | .92940 | .92700 | .92310 | .99960 | .99960 | 239.87000 |
| .298 | 14.497 | 2.27160 | 4105.70002 | .93890 | .92600 | .92900 | .92710 | .92390 | .99970 | .99970 | 239.20000 |
| .297 | 16.577 | 2.25340 | 4105.70002 | .93860 | .92660 | .92960 | .92768 | .92480 | .99980 | .99980 | 239.21000 |
| .297 | 18.630 | 2.24440 | 4105.70001 | .93880 | .92730 | .92970 | .92790 | .92550 | .99950 | .99950 | 239.21000 |
| .297 | 20.678 | 2.23970 | 4105.70001 | .93890 | .92790 | .92970 | .92800 | .92610 | .99930 | .99930 | 239.21000 |
| .297 | 22.702 | 2.25080 | 4105.78001 | .93930 | .92770 | .92970 | .92790 | .92650 | .99880 | .99880 | 239.54000 |
| .297 | 24.726 | 2.27210 | 4105.78001 | .93880 | .92658 | .92658 | .92740 | .92670 | .98250 | .98250 | 238.54000 |
| .297 | 25.738 | 2.28310 | 4105.70001 | .93810 | .92530 | .92530 | .92680 | .92650 | .98250 | .98250 | 238.54000 |
| | | .00398 | .00000 | .00842 | .00474 | .00007 | .00160 | .00149 | .08002 | .08002 | .00086 |

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 273/ 0

GRADIENT

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|--------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| .595 | .196 | 2.25620 | 2554.70000 | .77990 | .77990 | .74590 | .73790 | .73770 | .99900 | .99960 | 498.20000 |
| .595 | 2.244 | 2.28440 | 2554.70001 | .77860 | .77940 | .74550 | .73860 | .73810 | .99920 | .99920 | 498.80000 |
| .594 | 4.304 | 2.29860 | 2554.70001 | .77840 | .77910 | .74510 | .74000 | .73890 | .99950 | .99950 | 497.05000 |
| .594 | 6.386 | 2.30480 | 2554.70001 | .77800 | .77830 | .74470 | .74160 | .73980 | .99900 | .99900 | 499.98000 |
| .594 | 8.493 | 2.30350 | 2555.39999 | .77800 | .77840 | .74470 | .74240 | .74040 | .99890 | .99890 | 497.65000 |
| .594 | 10.605 | 2.30700 | 2555.39999 | .77800 | .77890 | .74470 | .74370 | .74150 | .99910 | .99910 | 498.24000 |
| .593 | 12.737 | 2.28490 | 2556.10001 | .77760 | .77820 | .74430 | .74400 | .74200 | .99930 | .99930 | 498.82000 |
| .593 | 14.827 | 2.31760 | 2556.10001 | .77760 | .77790 | .74420 | .74390 | .74250 | .99920 | .99920 | 561.74000 |
| .597 | 16.976 | 2.31070 | 2556.10001 | .77750 | .77790 | .74420 | .74278 | .74260 | .99870 | .99870 | 498.82000 |
| .597 | 19.095 | 2.29780 | 2556.10601 | .77740 | .77770 | .73840 | .74100 | .74120 | .99690 | .99690 | 500.59000 |
| .597 | 21.192 | 2.28910 | 2556.79999 | .77720 | .77760 | .73660 | .73930 | .74130 | .99590 | .99590 | 496.94000 |
| .593 | 23.251 | 2.30110 | 2556.18001 | .77720 | .77760 | .73540 | .73790 | .74060 | .99270 | .99270 | 500.00000 |
| .596 | 25.189 | 2.39870 | 2556.79988 | .77720 | .77730 | .70960 | .73140 | .73780 | .94850 | .94850 | 498.82000 |
| | | .01032 | .17823 | .00012 | .00007 | .00007 | .08873 | .00029 | .00815 | .00815 | .28062 |

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 280/ 0

GRADIENT

TABULATED DATA - OALB1 (ARC 11-97-87-094)

ARC 11-97-87-094 OALB1 ORBITER + PROBES

(BETR49) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.00C ELEVON = 15.000
 AIRLON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 50:FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8800 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 272 / 0 RNAL = 3.93 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|--------|---------|------------|--------|--------|--------|--------|--------|---------|---------|-----------|
| .297 | .178 | 5.29790 | 4107.79999 | .62290 | .00000 | .91580 | .64970 | .66600 | 1.08040 | 1.00030 | 238.54000 |
| .298 | 2.175 | 5.33200 | 4107.79999 | .70790 | .00000 | .94680 | .71600 | .68280 | 1.06000 | 1.00020 | 240.54000 |
| .299 | 4.195 | 5.34190 | 4107.79999 | .76960 | .62920 | .94850 | .76610 | .70650 | .99960 | .99990 | 240.54000 |
| .297 | 6.235 | 5.34570 | 4107.09998 | .81530 | .67910 | .92020 | .80480 | .73378 | 1.00010 | .99980 | 239.21000 |
| .291 | 8.278 | 5.35420 | 4107.09998 | .84840 | .72430 | .92230 | .83480 | .76980 | .99980 | 1.00000 | 238.54000 |
| .298 | 10.351 | 5.34900 | 4107.09998 | .87260 | .76390 | .92350 | .85620 | .78640 | .99980 | .99980 | 239.88000 |
| .299 | 12.419 | 5.35440 | 4107.09998 | .89030 | .78760 | .92500 | .87340 | .80910 | .99930 | .99990 | 241.20000 |
| .299 | 14.496 | 5.34030 | 4107.09998 | .90380 | .82540 | .92570 | .88940 | .82940 | .99940 | .99990 | 241.20000 |
| .299 | 16.558 | 5.32610 | 4107.09998 | .91250 | .84830 | .92610 | .89580 | .84560 | .99740 | .99960 | 240.54000 |
| .298 | 18.623 | 5.32090 | 4107.09998 | .91940 | .86710 | .92640 | .90330 | .86120 | .99550 | .99930 | 239.20000 |
| .297 | 20.670 | 5.32220 | 4106.40002 | .92460 | .88230 | .92670 | .90910 | .87370 | .99330 | .99920 | 239.53000 |
| .297 | 22.687 | 5.32750 | 4106.40002 | .92830 | .89430 | .92680 | .91320 | .88390 | .98930 | .99900 | 239.20000 |
| .297 | 24.708 | 5.34750 | 4106.40002 | .93100 | .90370 | .92580 | .91600 | .89200 | .98360 | .99830 | 239.87000 |
| .298 | 25.700 | 5.35340 | 4105.40002 | .93300 | .91130 | .92480 | .91790 | .89830 | .98110 | .99790 | 239.87000 |
| | | .01094 | .00000 | .03651 | .15684 | .00067 | .02897 | .01009 | .00020 | .00010 | .49687 |

RUN NO. 281 / 0 RNAL = 4.19 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|--------|---------|------------|---------|---------|--------|--------|--------|--------|--------|-----------|
| .596 | .213 | 5.34470 | 2555.39999 | .77810 | .77630 | .74410 | .73330 | .73450 | .99890 | .99880 | 499.40000 |
| .595 | 2.259 | 5.36160 | 2555.39999 | .77770 | .77810 | .74520 | .73560 | .73510 | .99910 | .99900 | 498.61000 |
| .594 | 4.327 | 5.37330 | 2555.39999 | .77710 | .77790 | .74590 | .73750 | .73671 | .99950 | .99960 | 497.07000 |
| .594 | 6.412 | 5.37270 | 2556.10004 | .77710 | .77740 | .74530 | .73750 | .73640 | .99890 | .99900 | 497.08000 |
| .597 | 8.516 | 5.37360 | 2556.10001 | .77700 | .77730 | .74670 | .73760 | .73760 | .99930 | .99900 | 500.57000 |
| .595 | 10.640 | 5.35630 | 2556.79999 | .77680 | .77700 | .74640 | .73840 | .73950 | .99850 | .99880 | 499.42000 |
| .597 | 12.740 | 5.35820 | 2556.79999 | .77680 | .77700 | .74670 | .74240 | .73950 | .99660 | .99820 | 500.59000 |
| .594 | 14.826 | 5.35450 | 2556.79999 | .77660 | .77680 | .74320 | .74180 | .74010 | .99410 | .99820 | 499.41000 |
| .596 | 16.928 | 5.38240 | 2556.10001 | .77700 | .77700 | .74190 | .74140 | .74060 | .99030 | .99750 | 501.16000 |
| .597 | 19.049 | 5.38870 | 2556.10001 | .77690 | .77680 | .74040 | .74050 | .74050 | .98810 | .99640 | 499.99000 |
| .596 | 21.148 | 5.39620 | 2556.10001 | .77660 | .77680 | .73900 | .73900 | .74010 | .96920 | .99640 | 500.59000 |
| .597 | 23.215 | 5.40140 | 2556.79999 | .77650 | .77660 | .73870 | .73680 | .73870 | .96950 | .99480 | 500.02000 |
| .597 | 25.195 | 5.39920 | 2557.50800 | .77610 | .77610 | .71860 | .73120 | .73630 | .94880 | .99270 | 500.00000 |
| .596 | 28.157 | 5.40860 | 2556.79999 | .77640 | .77630 | .71020 | .72510 | .73310 | .93500 | .99100 | 500.00000 |
| | | .00710 | .00000 | -.00015 | -.00010 | .00044 | .00102 | .00029 | .00015 | .00019 | -.58663 |

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TABULATED DATA - 0A164 (ARC 11-97-87-094)

(BETRES) (02 AUG 76)

ARC 11-97-87-094 0A164 ORBITER

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .008 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 3374 0 RMKL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|----------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.556 | .012 | -5.57260 | 1506.50000 | .14270 | .14210 | .14270 | .14210 | .14210 | .14240 | .14210 | 641.02000 |
| 1.556 | 2.012 | -5.57320 | 1511.39999 | .14300 | .14420 | .14400 | .14400 | .14380 | .14380 | .14330 | 643.12000 |
| 1.556 | 6.163 | -5.57320 | 1511.39999 | .14330 | .14320 | .14330 | .14330 | .14290 | .14310 | .14290 | 643.12000 |
| 1.556 | 8.234 | -5.57270 | 1512.10001 | .14130 | .14090 | .14090 | .14150 | .14130 | .14140 | .14130 | 643.42000 |
| 1.556 | 10.305 | -5.56990 | 1512.10001 | .14080 | .14070 | .14080 | .14070 | .14060 | .14040 | .14030 | 643.42000 |
| 1.556 | 12.346 | -5.57220 | 1511.39999 | .13640 | .13590 | .13630 | .13630 | .13290 | .13260 | .13640 | 643.12000 |
| 1.556 | 14.441 | -5.57420 | 1510.00000 | .13110 | .13160 | .13190 | .13180 | .13190 | .13140 | .13260 | 642.52000 |
| 1.556 | 16.583 | -5.57670 | 1512.10001 | .13130 | .13120 | .13130 | .13120 | .13120 | .13120 | .13150 | 643.42000 |
| 1.556 | 18.678 | -5.57330 | 1512.10001 | .12390 | .12390 | .12410 | .12390 | .12350 | .12390 | .12410 | 643.42000 |
| 1.556 | 22.799 | -5.57170 | 1513.60001 | .11770 | .11770 | .11770 | .11770 | .11780 | .11810 | .11780 | 644.03000 |
| 1.556 | 25.869 | -5.57570 | 1513.60001 | .11510 | .11510 | .11510 | .11510 | .11570 | .11550 | .11560 | 644.03000 |
| 1.556 | GRADIENT | -.00060 | 2.44963 | .00075 | .08105 | .00065 | .00095 | .00085 | .00070 | .00060 | 1.04985 |

RUN NO. 3307 0 RMKL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|----------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.936 | -.020 | -5.93150 | 1832.50000 | .05990 | .05820 | .05820 | .05020 | .05010 | .05010 | .05860 | 657.14000 |
| 1.936 | 1.955 | -5.92900 | 1831.80000 | .05840 | .05850 | .05860 | .05860 | .05860 | .05860 | .05860 | 656.89000 |
| 1.936 | 4.020 | -5.92790 | 1831.10001 | .05820 | .05820 | .05820 | .05840 | .05850 | .05850 | .05840 | 656.63000 |
| 1.936 | 6.082 | -5.92890 | 1833.20000 | .05950 | .05970 | .05970 | .05980 | .05980 | .05930 | .05930 | 657.39000 |
| 1.936 | 8.145 | -5.92780 | 1831.80000 | .05680 | .05710 | .05720 | .05710 | .05710 | .05700 | .05700 | 656.89000 |
| 1.936 | 10.202 | -5.92520 | 1831.80000 | .05680 | .05650 | .05650 | .05650 | .05650 | .05640 | .05640 | 656.89000 |
| 1.936 | 12.239 | -5.92480 | 1832.50000 | .05470 | .05470 | .05470 | .05460 | .05460 | .05460 | .05460 | 657.14000 |
| 1.936 | 14.332 | -5.92330 | 1831.80000 | .05330 | .05330 | .05330 | .05330 | .05330 | .05330 | .05330 | 656.89000 |
| 1.936 | 16.464 | -5.92260 | 1831.80000 | .05410 | .05410 | .05410 | .05400 | .05390 | .05390 | .05390 | 656.89000 |
| 1.936 | 18.548 | -5.92340 | 1831.80000 | .05020 | .05020 | .05020 | .05030 | .05030 | .05030 | .05030 | 657.14000 |
| 1.936 | 20.569 | -5.92080 | 1832.50000 | .04800 | .04810 | .04830 | .04830 | .04830 | .04830 | .04830 | 657.14000 |
| 1.936 | 22.610 | -5.91880 | 1832.50000 | .04660 | .04660 | .04660 | .04660 | .04660 | .04660 | .04660 | 657.14000 |
| 1.936 | 24.710 | -5.91810 | 1832.50000 | .04550 | .04550 | .04550 | .04550 | .04530 | .04570 | .04540 | 657.14000 |
| 1.936 | 25.733 | -5.91490 | 1832.50000 | -.00042 | -.00042 | -.00049 | -.00044 | -.00037 | -.00039 | -.00034 | 1.12624 |
| 1.936 | GRADIENT | -.00089 | -.34647 | -.00042 | -.00049 | -.00049 | -.00044 | -.00037 | -.00039 | -.00034 | |

(BE7856) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-89*)

ARC 11-97-87-89* OAS1 ORBITER

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA =
 AIRLON =
 -2.000 ELEVON = .000
 .000 BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | RUN NO. | 254 0 | RNAL = 4.03 | GRADIENT INTERVAL = -5.00/ 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|------|----------|----------|------------|---------|-------|-------------|---------------------------------|---------|---------|--------|---------|---------|---------|--------|-----------|
| .950 | .090 | -1.84650 | 2547.50000 | | | | | .77300 | .77300 | .77300 | .77300 | .77300 | .77300 | .77300 | 452.10000 |
| .951 | 2.125 | -1.84910 | 2548.29999 | | | | | .77240 | .77330 | .77240 | .77290 | .77310 | .77310 | .77050 | 453.90000 |
| .951 | 4.171 | -1.83970 | 2548.29999 | | | | | .77260 | .77260 | .77300 | .77290 | .77280 | .77280 | .77150 | 453.30000 |
| .951 | 6.233 | -1.84630 | 2548.29999 | | | | | .77280 | .77270 | .77260 | .77290 | .77260 | .77260 | .77180 | 453.90000 |
| .951 | 8.306 | -1.84710 | 2549.00000 | | | | | .77290 | .77270 | .77230 | .77240 | .77190 | .77260 | .77180 | 453.91000 |
| .951 | 10.404 | -1.84660 | 2549.00000 | | | | | .77210 | .77220 | .77210 | .77210 | .77240 | .77280 | .77220 | 453.91000 |
| .951 | 12.514 | -1.84140 | 2549.00000 | | | | | .77090 | .77170 | .77150 | .77150 | .77170 | .77110 | .77070 | 453.32000 |
| .951 | 14.605 | -1.79950 | 2549.00000 | | | | | .77010 | .77100 | .77030 | .76990 | .77030 | .77010 | .76920 | 452.72000 |
| .952 | 16.721 | -1.86270 | 2549.00000 | | | | | .76740 | .76850 | .76760 | .76740 | .76740 | .76740 | .76670 | 455.11000 |
| .950 | 18.835 | -1.86640 | 2548.29999 | | | | | .76380 | .76490 | .76490 | .76400 | .76440 | .76350 | .76350 | 452.71000 |
| .951 | 20.941 | -1.88950 | 2548.29999 | | | | | .76030 | .75980 | .76000 | .75980 | .76000 | .76030 | .76030 | 451.53000 |
| .959 | 23.023 | -1.84930 | 2549.00000 | | | | | .75510 | .75540 | .75460 | .75560 | .75500 | .75530 | .76030 | 451.53000 |
| .950 | 25.092 | -1.82490 | 2549.00000 | | | | | .75230 | .75280 | .75220 | .75160 | .75050 | .75200 | .75650 | 452.72000 |
| .951 | 26.061 | -1.78350 | 2548.29999 | | | | | .74800 | .74830 | .74820 | .74780 | .74770 | .74780 | .75230 | 453.30000 |
| | GRADIENT | .03167 | .17139 | | | | | -.00007 | -.00015 | .00005 | -.00005 | -.00010 | -.00012 | .00081 | .29350 |

| MACH | ALPHA | BETA | PT | RUN NO. | 3387 0 | RNAL = 3.03 | GRADIENT INTERVAL = -5.00/ 5.00 | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSE) |
|-------|----------|----------|------------|---------|--------|-------------|---------------------------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.558 | .081 | -2.54540 | 1529.80000 | | | | | .14530 | .14550 | .14560 | .14570 | .14560 | .14570 | .14560 | 650.95000 |
| 1.556 | 2.019 | -2.54570 | 1529.10001 | | | | | .14670 | .14670 | .14680 | .14660 | .14660 | .14660 | .14660 | 650.65000 |
| 1.556 | 4.098 | -2.54560 | 1531.20000 | | | | | .14540 | .14540 | .14510 | .14520 | .14520 | .14520 | .14520 | 651.25000 |
| 1.556 | 6.170 | -2.54500 | 1530.50000 | | | | | .14380 | .14440 | .14430 | .14390 | .14220 | .14420 | .14440 | 651.25000 |
| 1.556 | 8.240 | -2.54650 | 1529.80000 | | | | | .14260 | .14240 | .14220 | .14260 | .14220 | .14200 | .14220 | 650.95000 |
| 1.555 | 10.306 | -2.54430 | 1530.50000 | | | | | .13940 | .13970 | .13930 | .13930 | .13870 | .13920 | .13850 | 651.25000 |
| 1.555 | 12.347 | -2.54450 | 1529.80000 | | | | | .13640 | .13560 | .13520 | .13540 | .13540 | .13530 | .13530 | 650.95000 |
| 1.556 | 14.439 | -2.54140 | 1530.50000 | | | | | .13200 | .13190 | .13190 | .13180 | .13200 | .13190 | .13190 | 651.25000 |
| 1.556 | 16.581 | -2.54020 | 1529.80000 | | | | | .13000 | .13020 | .13020 | .13020 | .13060 | .13060 | .13030 | 650.95000 |
| 1.556 | 18.676 | -2.53970 | 1529.10001 | | | | | .13150 | .13150 | .13170 | .13180 | .13200 | .13200 | .13190 | 650.65000 |
| 1.556 | 20.709 | -2.53640 | 1533.39999 | | | | | .12890 | .12890 | .12860 | .12840 | .12810 | .12810 | .12850 | 662.45000 |
| 1.556 | 22.795 | -2.53390 | 1534.10001 | | | | | .12310 | .12310 | .12330 | .12330 | .12280 | .12270 | .12280 | 652.75000 |
| 1.556 | 24.860 | -2.53210 | 1534.80000 | | | | | .11520 | .11470 | .11520 | .11560 | .11470 | .11500 | .11490 | 653.05000 |
| 1.556 | 25.891 | -2.52850 | 1538.30000 | | | | | .11270 | .11300 | .11270 | .11250 | .11250 | .11260 | .11300 | 654.95000 |
| | GRADIENT | -.00002 | .34927 | | | | | -.00002 | -.00003 | -.00013 | -.00013 | -.00010 | -.08013 | -.00010 | .14963 |

TABULATED DATA - OAN64 (ARC 11-97-87-094)
 ARC 11-97-87-094 OAN61 ORBITER

(BETR56) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.6800 IN. YMRP = .0800 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RUN NO. 341/ 0 RMAL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | OMP5F |
|-------|--------|----------|------------|---------|--------|--------|--------|--------|--------|--------|-----------|
| 1.996 | -0.022 | -2.88920 | 1833.20000 | .06040 | .06050 | .06040 | .06040 | .06040 | .06040 | .06050 | 657.39000 |
| 1.996 | 1.963 | -2.89100 | 1833.20000 | .06080 | .06100 | .06100 | .06090 | .06040 | .06050 | .06050 | 657.39000 |
| 1.996 | 4.024 | -2.88970 | 1832.50000 | .06020 | .06060 | .06060 | .06100 | .06070 | .06070 | .06060 | 657.14000 |
| 1.996 | 6.082 | -2.88920 | 1833.20000 | .06110 | .06130 | .06120 | .06140 | .06120 | .06130 | .06110 | 657.39000 |
| 1.996 | 8.143 | -2.88990 | 1833.20000 | .06020 | .06010 | .06040 | .06010 | .06010 | .06010 | .06020 | 657.39000 |
| 1.996 | 10.201 | -2.88880 | 1833.20000 | .05810 | .05870 | .05820 | .05850 | .05810 | .05800 | .05810 | 657.39000 |
| 1.996 | 12.234 | -2.88860 | 1833.20000 | .05630 | .05640 | .05670 | .05670 | .05650 | .05700 | .05660 | 657.39000 |
| 1.996 | 14.322 | -2.88650 | 1833.20000 | .05370 | .05390 | .05410 | .05390 | .05390 | .05400 | .05380 | 657.39000 |
| 1.996 | 16.455 | -2.88490 | 1834.00000 | .05390 | .05320 | .05380 | .05380 | .05350 | .05350 | .05400 | 657.65000 |
| 1.996 | 18.540 | -2.88260 | 1832.50000 | .05130 | .05120 | .05120 | .05140 | .05150 | .05190 | .05190 | 657.14000 |
| 1.996 | 20.559 | -2.88050 | 1832.50000 | .04940 | .04938 | .04970 | .04980 | .04970 | .04960 | .04960 | 657.14000 |
| 1.996 | 22.642 | -2.87670 | 1832.50000 | .05000 | .05030 | .05020 | .05020 | .04990 | .05010 | .05020 | 657.39000 |
| 1.996 | 24.702 | -2.87470 | 1833.20000 | .04870 | .04850 | .04820 | .04860 | .04840 | .04860 | .04850 | 657.14000 |
| 1.996 | 25.727 | -2.87310 | 1832.50000 | -.00005 | .00002 | .00005 | .00015 | .00007 | .00007 | .00002 | -0.06278 |

ORIGINAL PAGE
 OF FOUR PARTS

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(BE7957) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AIRLOW = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|------|----------|--------|------------|---------|--------|--------|---------|---------|---------|--------|-----------|
| .560 | .085 | .19720 | 2546.89989 | .77390 | .77358 | .77270 | .77330 | .77390 | .77350 | .76650 | 451.90000 |
| .560 | 2.122 | .20750 | 2546.89989 | .77320 | .77340 | .77430 | .77330 | .77270 | .77290 | .76900 | 452.09000 |
| .561 | 4.171 | .20970 | 2547.60001 | .77320 | .77360 | .77380 | .77360 | .77310 | .77290 | .77090 | 452.40000 |
| .560 | 6.231 | .20960 | 2547.60001 | .77300 | .77370 | .77350 | .77340 | .77280 | .77310 | .77170 | 452.10000 |
| .561 | 8.311 | .21698 | 2547.60001 | .77280 | .77340 | .77268 | .77310 | .77310 | .77290 | .77280 | 452.79000 |
| .560 | 10.377 | .21480 | 2548.29998 | .77270 | .77250 | .77190 | .77310 | .77310 | .77280 | .77250 | 452.11000 |
| .561 | 12.478 | .21150 | 2548.29999 | .77250 | .77210 | .77200 | .77140 | .77140 | .77190 | .77250 | 452.71000 |
| .561 | 14.583 | .22740 | 2549.00000 | .77040 | .77120 | .77170 | .77100 | .77080 | .77050 | .77180 | 453.32000 |
| .561 | 16.688 | .22060 | 2549.00000 | .76800 | .76900 | .76840 | .76860 | .76820 | .76820 | .77810 | 453.32000 |
| .559 | 18.794 | .21940 | 2549.00000 | .76490 | .76544 | .76510 | .76550 | .76510 | .76550 | .76830 | 451.53000 |
| .561 | 20.901 | .20740 | 2549.00000 | .76190 | .76210 | .76250 | .76170 | .76240 | .76170 | .76680 | 453.32000 |
| .559 | 22.986 | .20560 | 2549.00000 | .75770 | .75720 | .75790 | .75830 | .75820 | .75800 | .76260 | 450.95000 |
| .560 | 25.067 | .21320 | 2549.00000 | .75340 | .75400 | .75400 | .75380 | .75380 | .75410 | .75920 | 452.72000 |
| .561 | 26.046 | .16600 | 2549.00000 | .74920 | .74920 | .74910 | .75820 | .74970 | .75080 | .75490 | 453.32000 |
| | GRADIENT | .00306 | .17149 | -.00005 | .00002 | .00027 | -.00005 | -.00020 | -.00007 | .00108 | .29368 |

RUN NO. 264 0 RM/L = 4.02 GRADIENT INTERVAL = -5.00/ 5.08

RUN NO. 342/ 0 RM/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.08

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | Q(PSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.996 | -.023 | -.84120 | 1804.70000 | .05980 | .05980 | .05990 | .05960 | .05960 | .05980 | .06010 | 657.90000 |
| 1.996 | 1.955 | -.84220 | 1835.39999 | .06080 | .06120 | .06110 | .06110 | .06120 | .06110 | .06120 | 658.15000 |
| 1.996 | 4.020 | -.84280 | 1835.39999 | .06290 | .06300 | .06310 | .06310 | .06260 | .06270 | .06250 | 658.15000 |
| 1.996 | 6.080 | -.84260 | 1836.10001 | .06190 | .06170 | .06180 | .06170 | .06170 | .06190 | .06180 | 658.41000 |
| 1.996 | 8.138 | -.84160 | 1836.10001 | .05940 | .05940 | .05980 | .05930 | .05950 | .05940 | .05950 | 658.41000 |
| 1.996 | 10.197 | -.84270 | 1835.39998 | .05740 | .05750 | .05760 | .05738 | .05740 | .05740 | .05770 | 658.15000 |
| 1.996 | 12.231 | -.84080 | 1836.10001 | .05650 | .05660 | .05660 | .05660 | .05660 | .05620 | .05670 | 658.15000 |
| 1.996 | 14.321 | -.83910 | 1836.86000 | .05450 | .05460 | .05430 | .05450 | .05450 | .05420 | .05470 | 658.66000 |
| 1.996 | 15.459 | -.83750 | 1835.39999 | .05290 | .05280 | .05280 | .05280 | .05270 | .05280 | .05320 | 658.15000 |
| 1.996 | 18.545 | -.83590 | 1836.10001 | .05350 | .05360 | .05310 | .05310 | .05310 | .05310 | .05320 | 658.41000 |
| 1.996 | 2.646 | -.83030 | 1837.50000 | .04980 | .04990 | .04970 | .04980 | .04980 | .04980 | .04980 | 658.91000 |
| 1.996 | 24.706 | -.82670 | 1838.86399 | .04680 | .04678 | .04680 | .04700 | .04720 | .04680 | .04680 | 658.42000 |
| 1.996 | 25.731 | -.82420 | 1837.50000 | .04610 | .04610 | .04610 | .04620 | .04610 | .04620 | .04610 | 658.91000 |
| | GRADIENT | -.00040 | .17191 | .00077 | .00079 | .00079 | .00087 | .00074 | .00072 | .00059 | .06139 |

TABULATED DATA - 0A181 (ARC 11-97-87-094)

(BETR581 (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .088 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RUN NO. 27/ 0 RWL = 4.02 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSF) |
|------|----------|---------|------------|---------|---------|---------|---------|---------|---------|--------|-----------|
| .561 | .100 | 2.25060 | 2546.88999 | .77440 | .72900 | .77320 | .77300 | .77370 | .77370 | .76810 | 452.69000 |
| .561 | 2.133 | 2.28040 | 2547.60001 | .77190 | .77330 | .77270 | .77240 | .77270 | .77260 | .77110 | 453.69000 |
| .561 | 4.185 | 2.29430 | 2547.60001 | .77280 | .77270 | .77250 | .77290 | .77230 | .77250 | .77110 | 452.70000 |
| | GRADIENT | .01069 | .17105 | -.00039 | -.00005 | -.00017 | -.00002 | -.00034 | -.00029 | .00073 | .00155 |

RUN NO. 343/ 0 RWL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | 0(PSF) |
|-------|----------|---------|------------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1.996 | -.027 | 1.23520 | 1838.20000 | .05970 | .05940 | .05930 | .05830 | .05950 | .05840 | .05986 | 659.17000 |
| 1.996 | 1.964 | 1.23800 | 1837.50000 | .05860 | .05880 | .05870 | .05860 | .05850 | .05910 | .05860 | 658.91000 |
| 1.996 | 4.026 | 1.26270 | 1838.20000 | .06040 | .06030 | .06010 | .06030 | .06020 | .06030 | .06040 | 659.17000 |
| 1.996 | 6.083 | 1.22200 | 1837.50000 | .05980 | .06020 | .06040 | .05990 | .06040 | .06040 | .06020 | 658.91000 |
| 1.996 | 8.141 | 1.23130 | 1838.20000 | .05940 | .05920 | .08950 | .05930 | .05940 | .05930 | .05910 | 659.17000 |
| 1.996 | 10.202 | 1.25820 | 1837.50000 | .05690 | .05710 | .06680 | .05690 | .05680 | .05700 | .05720 | 658.91000 |
| 1.996 | 12.238 | 1.26760 | 1838.20000 | .05548 | .05570 | .05590 | .05550 | .05550 | .05560 | .05550 | 659.17000 |
| 1.996 | 14.324 | 1.26890 | 1837.50000 | .05380 | .05270 | .05340 | .05310 | .05300 | .05310 | .05280 | 658.91000 |
| 1.996 | 16.460 | 1.26700 | 1838.20000 | .05200 | .05200 | .05160 | .05280 | .05210 | .05190 | .05220 | 659.17000 |
| 1.996 | 18.545 | 1.27830 | 1837.50000 | .05350 | .05360 | .05310 | .05330 | .05360 | .05348 | .05310 | 658.91000 |
| 1.996 | 20.561 | 1.28240 | 1838.20000 | .05020 | .05020 | .05060 | .05060 | .05050 | .05060 | .05060 | 659.17000 |
| 1.996 | 22.641 | 1.27678 | 1837.50000 | .04920 | .04920 | .04950 | .04960 | .04970 | .04950 | .04920 | 658.91000 |
| 1.996 | 24.782 | 1.27740 | 1837.50000 | .04710 | .04738 | .04730 | .04788 | .04750 | .04750 | .04750 | 658.91000 |
| 1.996 | 25.728 | 1.28860 | 1837.50000 | .04890 | .04890 | .04900 | .04860 | .04860 | .04820 | .04810 | 658.91000 |
| | GRADIENT | -.00066 | .00200 | .09018 | .09023 | .00020 | .00025 | .00018 | .00022 | .00015 | .00075 |

TABLATED DATA - 0A161 (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER

(BETRSSA (02 AUG 76.)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILLON = .000 BDRFLAP = -7.178

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.8800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0800 IN. ZO
SCALE = .0300

RUN NO. 344/ 0 RM/L = 3.09 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1.996 | -.045 | 4.27138 | 1836.20000 | .05930 | .05930 | .05960 | .05960 | .05960 | .05920 | .05920 | 659.17000 |
| 1.996 | 1.960 | 4.26780 | 1835.80000 | .05870 | .05820 | .05830 | .05830 | .05820 | .05800 | .05800 | 658.66000 |
| 1.996 | 4.016 | 4.25288 | 1837.50000 | .05770 | .05770 | .05780 | .05780 | .05778 | .05770 | .05780 | 658.91000 |
| 1.996 | 6.083 | 4.25910 | 1837.50000 | .05630 | .05640 | .05640 | .05620 | .05620 | .05600 | .05610 | 658.91000 |
| 1.996 | 8.143 | 4.25630 | 1836.80000 | .05780 | .05770 | .05780 | .05760 | .05810 | .05770 | .05750 | 658.66000 |
| 1.996 | 10.198 | 4.26710 | 1837.50000 | .05690 | .05660 | .05660 | .05630 | .05670 | .05680 | .05660 | 658.91000 |
| 1.996 | 12.240 | 4.26480 | 1837.50000 | .05460 | .05490 | .05490 | .05490 | .05510 | .05480 | .05470 | 658.91000 |
| 1.996 | 14.321 | 4.26900 | 1837.50000 | .05460 | .05470 | .05460 | .05450 | .05450 | .05460 | .05420 | 658.91000 |
| 1.996 | 16.456 | 4.27200 | 1836.80000 | .05380 | .05380 | .05380 | .05370 | .05380 | .05390 | .05370 | 658.66000 |
| 1.996 | 18.548 | 4.27660 | 1836.80000 | .05230 | .05220 | .05220 | .05220 | .05230 | .05230 | .05230 | 658.66000 |
| 1.996 | 20.599 | 4.28010 | 1837.50000 | .05130 | .05160 | .05130 | .05150 | .05140 | .05140 | .05150 | 658.91000 |
| 1.996 | 22.636 | 4.28400 | 1836.80000 | .04960 | .04960 | .04960 | .04960 | .04990 | .04970 | .04980 | 658.66000 |
| 1.996 | 24.698 | 4.28970 | 1838.89999 | .04750 | .04750 | .04750 | .04750 | .04740 | .04750 | .04750 | 658.42000 |
| 1.996 | 25.724 | 4.29230 | 1840.30000 | .04590 | .04580 | .04580 | .04630 | .04630 | .04630 | .04630 | 659.93000 |
| | GRADIENT | -.00457 | -.17024 | -.00039 | -.00039 | -.00044 | -.00044 | -.00047 | -.00037 | -.00034 | -.06325 |

RUN NO. 336/ 0 RM/L = 3.04 GRADIENT INTERVAL = -5.00# 5.00

| MACH | ALPHA | BETA | PT | PT1/PT | PT2/PT | PT3/PT | PT4/PT | PT5/PT | PT6/PT | PT7/PT | O(PSF) |
|-------|----------|---------|------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2.249 | -.069 | 4.26120 | 2030.60001 | .03690 | .03690 | .03690 | .03690 | .03660 | .03690 | .03670 | 622.66000 |
| 2.249 | 1.952 | 4.25800 | 2027.00000 | .03620 | .03600 | .03620 | .03590 | .03590 | .03620 | .03590 | 621.58000 |
| 2.249 | 4.008 | 4.25510 | 2027.70000 | .03540 | .03550 | .03540 | .03570 | .03560 | .03560 | .03550 | 621.79000 |
| 2.249 | 6.059 | 4.25710 | 2033.39999 | .03520 | .03520 | .03530 | .03550 | .03550 | .03550 | .03580 | 623.93000 |
| 2.249 | 8.118 | 4.25830 | 2035.50000 | .03410 | .03370 | .03360 | .03360 | .03360 | .03350 | .03340 | 624.18000 |
| 2.249 | 12.208 | 4.25970 | 2035.20000 | .03040 | .03050 | .03080 | .03080 | .03070 | .03080 | .03070 | 624.39000 |
| 2.249 | 14.269 | 4.26200 | 2036.20000 | .02970 | .02970 | .02960 | .02960 | .02950 | .02980 | .02950 | 624.39000 |
| 2.249 | 16.396 | 4.26480 | 2036.89999 | .02990 | .02990 | .03000 | .03020 | .02960 | .02980 | .02950 | 624.61000 |
| 2.249 | 18.462 | 4.26740 | 2036.89999 | .02980 | .02990 | .02980 | .02980 | .02980 | .02980 | .02950 | 624.61000 |
| 2.249 | 22.553 | 4.27820 | 2036.89999 | .02860 | .02860 | .02860 | .02860 | .02860 | .02870 | .02830 | 624.61000 |
| 2.249 | 24.606 | 4.28330 | 2036.89999 | .02820 | .02820 | .02820 | .02820 | .02850 | .02850 | .02830 | 624.61000 |
| 2.249 | 24.953 | 4.28330 | 2036.89999 | -.00037 | -.00027 | -.00037 | -.00029 | -.00025 | -.00032 | -.00029 | -.21249 |
| | GRADIENT | -.00125 | -.70833 | -.00037 | -.00027 | -.00037 | -.00029 | -.00025 | -.00032 | -.00029 | -.21249 |

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OF POOR QUALITY

TABLATED DATA - 0A161 (ARC 11-97-87-094)

(EE7803) (02 AUG 76)

PARAMETRIC DATA

BETA = -9.000 ELEVON = .000
AILRON = .000 BDFLAR = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|-------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 1.200 | .000 | -5.00000 | 2002.91339 | 826.82202 | 1166.56922 | .56376 | .56358 | .56398 | .79897 | .79879 | .78720 |
| 2.000 | .000 | -5.00000 | 2009.58676 | 828.57557 | 1166.22134 | .56971 | .56961 | .56751 | .79399 | .79309 | .79139 |
| 4.000 | .000 | -5.00000 | 2012.39209 | 829.41618 | 1157.40450 | .57361 | .57529 | .57349 | .78674 | .78643 | .78453 |
| 6.000 | .000 | -5.00000 | 2007.30058 | 828.01813 | 1165.43674 | .57537 | .57498 | .57394 | .77880 | .77841 | .77737 |
| 8.000 | .000 | -5.00000 | 2005.18105 | 827.76498 | 1165.08044 | .57707 | .57718 | .57508 | .78284 | .78274 | .78075 |
| 10.000 | .000 | -5.00000 | 1999.63934 | 826.38300 | 1163.13528 | .57930 | .57900 | .57718 | .78593 | .78563 | .78380 |
| 12.000 | .000 | -5.00000 | 2001.45516 | 826.74883 | 1163.65021 | .58865 | .58870 | .58713 | .78569 | .78575 | .78417 |
| 14.000 | .000 | -5.00000 | 2001.00822 | 826.64798 | 1163.50826 | .59563 | .59586 | .59363 | .80966 | .81009 | .80806 |
| 16.000 | .000 | -5.00000 | 1993.43224 | 826.30900 | 1163.03114 | .60478 | .60478 | .60341 | .82294 | .82248 | .82112 |
| 18.000 | .000 | -5.00000 | 2003.10529 | 827.20448 | 1164.29153 | .62421 | .62421 | .62290 | .83459 | .83484 | .83353 |
| 20.000 | .000 | -5.00000 | 2000.66002 | 826.62385 | 1163.47430 | .63650 | .63711 | .63487 | .84171 | .84231 | .84008 |
| 22.000 | .000 | -5.00000 | 1995.12405 | 825.65847 | 1152.11592 | .64755 | .64754 | .64501 | .84946 | .84945 | .84692 |
| 24.000 | .000 | -5.00000 | 1995.54181 | 825.41649 | 1161.77493 | .66618 | .66900 | .66367 | .85749 | .85032 | .85499 |
| GRADIENT | | .00000 | .86967 | .14854 | .20906 | .00243 | .00243 | .00237 | .00305 | .00305 | .00314 |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|-------|----------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.550 | .000 | -5.00000 | 1578.31139 | 400.01855 | 1042.32884 | .67568 | .66562 | .64883 | .92104 | .91198 | .89419 |
| 2.000 | .000 | -5.00000 | 1578.99117 | 400.18729 | 1042.76854 | .67433 | .66373 | .65223 | .91605 | .90846 | .89395 |
| 4.000 | .000 | -5.00000 | 1577.32025 | 399.78399 | 1041.71767 | .67750 | .66680 | .65632 | .91515 | .90446 | .89897 |
| 6.000 | .000 | -5.00000 | 1577.34309 | 399.79176 | 1041.73791 | .68306 | .67395 | .66088 | .91349 | .90439 | .89131 |
| 8.000 | .000 | -5.00000 | 1578.35884 | 400.03287 | 1042.36615 | .68801 | .68083 | .66372 | .91516 | .90803 | .89087 |
| 10.000 | .000 | -5.00000 | 1575.77289 | 399.39394 | 1043.70126 | .69466 | .68733 | .67160 | .91718 | .90984 | .89417 |
| 12.000 | .000 | -5.00000 | 1575.64384 | 399.36981 | 1040.63844 | .69788 | .69192 | .67376 | .91023 | .90284 | .88666 |
| 14.000 | .000 | -5.00000 | 1575.95380 | 399.44687 | 1040.83922 | .70436 | .69780 | .68554 | .91814 | .91158 | .89932 |
| 16.000 | .000 | -5.00000 | 1575.97449 | 399.45256 | 1040.85405 | .70880 | .70365 | .69109 | .92045 | .91530 | .90274 |
| 18.000 | .000 | -5.00000 | 1576.27609 | 399.52647 | 1041.04663 | .71607 | .71165 | .70107 | .92078 | .91637 | .90578 |
| 20.000 | .000 | -5.00000 | 1575.81370 | 399.41241 | 1040.74942 | .72139 | .71673 | .70569 | .91690 | .91226 | .90120 |
| 22.000 | .000 | -5.00000 | 1575.80844 | 399.41526 | 1040.75685 | .72514 | .72068 | .71226 | .91129 | .90683 | .89641 |
| 24.000 | .000 | -5.00000 | 1576.42549 | 399.57412 | 1041.17079 | .73009 | .72535 | .72173 | .90508 | .90034 | .89672 |
| GRADIENT | | .00000 | -.24779 | -.05863 | -.15279 | .00045 | .00045 | .00187 | -.00147 | -.00188 | -.00005 |

(EE7803) (02 AUG 78)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
ALTRON = .000 SDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|--------|----------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.750 | .000 | -5.00000 | 1849.42418 | 309.79275 | 1066.72121 | .67081 | .67081 | .63755 | .93716 | .92220 | .88694 |
| | 2.000 | -5.00000 | 1650.93587 | 310.08348 | 1067.72222 | .68981 | .67143 | .63544 | .93841 | .91594 | .88394 |
| | 4.000 | -5.00000 | 1650.24094 | 309.94633 | 1067.25003 | .69311 | .67542 | .64106 | .93683 | .91914 | .88478 |
| | 6.000 | -5.00000 | 1649.94432 | 309.89394 | 1067.06963 | .68254 | .68254 | .65355 | .93385 | .91993 | .88794 |
| | 8.000 | -5.00000 | 1650.82304 | 310.06269 | 1067.65071 | .70250 | .69212 | .65357 | .93669 | .92831 | .90016 |
| | 10.000 | -5.00000 | 1650.44762 | 309.98747 | 1067.59171 | .70857 | .69943 | .67357 | .94105 | .93197 | .90515 |
| | 12.000 | -5.00000 | 1651.41377 | 310.17477 | 1068.03642 | .71343 | .70515 | .68183 | .93935 | .93107 | .90781 |
| | 14.000 | -5.00000 | 1651.02856 | 310.09678 | 1067.76807 | .71853 | .70993 | .68944 | .93978 | .93418 | .91069 |
| | 16.000 | -5.00000 | 1650.14075 | 309.92978 | 1067.19304 | .72339 | .71493 | .69673 | .93879 | .93043 | .91215 |
| | 18.000 | -5.00000 | 1650.84254 | 310.06318 | 1067.65240 | .72834 | .71932 | .70398 | .93620 | .92618 | .91084 |
| | 20.000 | -5.00000 | 1651.38724 | 310.16493 | 1068.00276 | .73645 | .72720 | .70988 | .93129 | .92204 | .90533 |
| | 22.000 | -5.00000 | 1651.57825 | 310.20011 | 1068.12389 | .74121 | .73190 | .71132 | .93048 | .92117 | .90058 |
| | 24.000 | -5.00000 | 1651.58163 | 310.20077 | 1068.12617 | .74323 | .73343 | .71055 | .92211 | .91228 | .88943 |
| GRADIENT | | .00000 | .20419 | .03840 | .13221 | .00183 | .00115 | .00088 | -.00008 | -.00077 | -.00104 |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|--------|----------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 2.000 | .000 | -5.00000 | 1847.06216 | 235.97826 | 1095.04305 | .75077 | .72521 | .66884 | .93704 | .92918 | .91261 |
| | 2.000 | -5.00000 | 1848.00623 | 236.10478 | 1095.63014 | .75836 | .73144 | .66386 | .93494 | .92801 | .90744 |
| | 4.000 | -5.00000 | 1847.42177 | 236.02850 | 1095.27618 | .76837 | .73372 | .66646 | .93435 | .92891 | .90265 |
| | 6.000 | -5.00000 | 1846.95721 | 235.96252 | 1094.97044 | .76115 | .74312 | .66488 | .93462 | .92750 | .92835 |
| | 8.000 | -5.00000 | 1846.99805 | 235.96757 | 1094.99344 | .76579 | .74831 | .66517 | .93600 | .92943 | .94095 |
| | 10.000 | -5.00000 | 1846.48546 | 235.89915 | 1094.67596 | .76632 | .74990 | .66517 | .93533 | .92791 | .94675 |
| | 12.000 | -5.00000 | 1846.51515 | 235.90250 | 1094.69148 | .77653 | .76137 | .66517 | .93527 | .92702 | .94675 |
| | 14.000 | -5.00000 | 1846.62762 | 235.91658 | 1094.75682 | .78652 | .76907 | .66517 | .93295 | .92543 | .94693 |
| | 16.000 | -5.00000 | 1846.02921 | 235.83774 | 1094.38096 | .78852 | .77197 | .66517 | .93118 | .92453 | .94693 |
| | 18.000 | -5.00000 | 1846.35066 | 235.87904 | 1094.58261 | .78405 | .76932 | .66517 | .93118 | .92453 | .94693 |
| | 20.000 | -5.00000 | 1846.86618 | 235.94551 | 1094.89108 | .77159 | .76932 | .66517 | .93258 | .92626 | .93359 |
| | 22.000 | -5.00000 | 1847.20576 | 235.98682 | 1095.09203 | .78491 | .77799 | .66517 | .92722 | .92531 | .93359 |
| | 24.000 | -5.00000 | 1846.00110 | 235.83439 | 1094.37541 | .80758 | .79068 | .66517 | .92177 | .92507 | .92143 |
| GRADIENT | | .00000 | .08990 | .01256 | .05829 | .00190 | .00213 | .00060 | -.00004 | -.00018 | -.00254 |

(EE7803) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0800 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0380

MACH = 2.250 RNAL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|-------|----------|------------|-----------|------------|--------|--------|---------|---------|---------|--------|
| 2.000 | .000 | -9.00000 | 2051.52133 | 177.43511 | 1064.93391 | .82083 | .78449 | .69756 | 1.05495 | 1.01861 | .95167 |
| 2.000 | .000 | -5.00000 | 2050.73444 | 177.36766 | 1064.52908 | .82366 | .78801 | .69592 | 1.05868 | 1.02503 | .96094 |
| 4.000 | .000 | -5.00000 | 2050.90634 | 177.38244 | 1064.61781 | .82276 | .79082 | .70283 | 1.05586 | 1.02383 | .93994 |
| 6.000 | .000 | -5.00000 | 2050.75029 | 177.36738 | 1064.52737 | .83006 | .80453 | 1.05750 | 1.05750 | 1.03197 | .96024 |
| 8.000 | .000 | -5.00000 | 2051.17938 | 177.41387 | 1064.75842 | .83998 | .81389 | .75238 | 1.06066 | 1.03457 | .97386 |
| 10.000 | .000 | -5.00000 | 2051.78479 | 177.45775 | 1065.06981 | .84709 | .81844 | .76111 | 1.05680 | 1.03277 | .97544 |
| 12.000 | .000 | -5.00000 | 2052.43538 | 177.51383 | 1065.40637 | .84142 | .80557 | .77249 | 1.05461 | 1.02809 | .98801 |
| 14.000 | .000 | -5.00000 | 2054.13220 | 177.65454 | 1066.25092 | .84142 | .81851 | .77785 | 1.04973 | 1.02681 | .98616 |
| 16.000 | .000 | -5.00000 | 2055.24664 | 177.75452 | 1066.85094 | .83331 | .82861 | .77954 | 1.04988 | 1.02500 | .98193 |
| 18.000 | .000 | -5.00000 | 2055.90338 | 177.81194 | 1067.19557 | .83086 | .82824 | .78678 | 1.04172 | 1.01494 | .98132 |
| 20.000 | .000 | -5.00000 | 2055.49188 | 177.77633 | 1066.98186 | .83582 | .82824 | .79559 | 1.04288 | 1.01415 | .98228 |
| 22.000 | .000 | -5.00000 | 2055.36655 | 177.76571 | 1066.91889 | .83574 | .82824 | .78793 | 1.04288 | 1.01415 | .98228 |
| 24.000 | .000 | -5.00000 | 2056.58188 | 177.86968 | 1067.54214 | .87592 | .84851 | .86108 | 1.04782 | 1.01960 | .97277 |
| GRADIENT | | .00000 | -.15373 | -.01317 | -.07902 | .00848 | .00158 | .00132 | .00823 | .00133 | .00107 |

MACH = 2.500 RNAL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|-------|----------|------------|----------|-----------|--------|--------|--------|---------|---------|---------|
| 2.000 | .000 | -5.00000 | 1488.56390 | 87.64465 | 659.62552 | .88783 | .85664 | .74477 | 1.12289 | 1.09371 | .97584 |
| 4.000 | .000 | -5.00000 | 1497.87276 | 87.60338 | 659.31491 | .88652 | .85796 | .74911 | 1.12242 | 1.09387 | .98401 |
| 6.000 | .000 | -5.00000 | 1497.09436 | 87.55775 | 659.91159 | .89110 | .86444 | .76385 | 1.12209 | 1.09543 | .99484 |
| 8.000 | .000 | -5.00000 | 1497.75077 | 87.59612 | 659.26024 | .89422 | .87164 | .77937 | 1.12560 | 1.10302 | 1.01075 |
| 10.000 | .000 | -5.00000 | 1497.84230 | 87.60144 | 659.34032 | .89567 | .87330 | .79078 | 1.12087 | 1.09851 | 1.01598 |
| 12.000 | .000 | -5.00000 | 1497.81511 | 87.59991 | 659.28880 | .90035 | .87525 | .79543 | 1.12468 | 1.09624 | 1.02232 |
| 14.000 | .000 | -5.00000 | 1497.81754 | 87.59988 | 659.28956 | .90013 | .87093 | .80701 | 1.11544 | 1.08245 | 1.02761 |
| 16.000 | .000 | -5.00000 | 1497.78598 | 87.59784 | 659.27169 | .90539 | .87347 | .81862 | 1.11434 | 1.07779 | 1.02624 |
| 18.000 | .000 | -5.00000 | 1497.77367 | 87.59656 | 659.26360 | .90816 | .87377 | .82233 | 1.11217 | 1.07069 | 1.02218 |
| 20.000 | .000 | -5.00000 | 1497.73448 | 87.59658 | 659.26370 | .91333 | .87592 | .82341 | 1.10560 | 1.06836 | 1.01961 |
| 22.000 | .000 | -5.00000 | 1497.81296 | 87.59782 | 659.27309 | .91333 | .87592 | .82797 | 1.10560 | 1.06836 | 1.01961 |
| 24.000 | .000 | -5.00000 | 1497.82333 | 87.59926 | 659.28369 | .91085 | .87586 | .83035 | 1.09465 | 1.06007 | 1.01412 |
| GRADIENT | | .00000 | -.36739 | -.02172 | -.16350 | .00082 | .00198 | .00477 | -.00025 | .00093 | .00375 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(EE7803) (02 AUG 76)

REFERENCE DATA

SREF = 2690.000 SQ. FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8800 IN. YMRP = 0200 IN. YQ
 BREF = 936.6800 IN. ZMRP = 375.0800 IN. ZQ
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 ALPHA = .000 BOFLAP = -1.170

RMXL = 1.93 GRADIENT INTERVAL = -9.00/ 5.00

| MACH = 3.000 | BETA | PT | P | OCOMP | 0A1/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|---------------|----------|------------|----------|-----------|---------|--------|--------|---------|---------|---------|
| ALPHA = 0.000 | -5.00000 | 1935.56339 | 51.10074 | 565.26348 | 1.01140 | .97374 | .79130 | 1.24658 | 1.20893 | 1.02648 |
| 2.000 | -5.00000 | 1935.15836 | 51.09178 | 565.12438 | 1.01529 | .97972 | .80754 | 1.24898 | 1.21341 | 1.02648 |
| 4.000 | -5.00000 | 1936.07675 | 51.11307 | 565.36988 | 1.01986 | .98553 | .83115 | 1.25190 | 1.21875 | 1.02648 |
| 6.000 | -5.00000 | 1936.50783 | 51.12482 | 565.48977 | 1.01999 | .98727 | .84549 | 1.25147 | 1.21796 | 1.02648 |
| 8.000 | -5.00000 | 1936.47981 | 51.12357 | 565.47600 | 1.02503 | .98963 | .86794 | 1.25335 | 1.21967 | 1.02648 |
| 10.000 | -5.00000 | 1936.30977 | 51.12127 | 565.45056 | 1.02994 | .98761 | .88298 | 1.25150 | 1.20242 | 1.02648 |
| 12.000 | -5.00000 | 1936.00462 | 51.11145 | 565.34191 | 1.03684 | .98530 | .89408 | 1.25367 | 1.19640 | 1.02648 |
| 14.000 | -5.00000 | 1935.75789 | 51.09733 | 565.18574 | 1.04177 | .98430 | .89408 | 1.25367 | 1.18862 | 1.02648 |
| 16.000 | -5.00000 | 1935.34929 | 51.08156 | 565.01133 | 1.04519 | .98198 | .89675 | 1.24912 | 1.18124 | 1.02648 |
| 18.000 | -5.00000 | 1935.29300 | 51.07934 | 564.98677 | 1.04883 | .98055 | .89675 | 1.24162 | 1.17355 | 1.02648 |
| 20.000 | -5.00000 | 1934.35158 | 51.05967 | 564.76923 | 1.04909 | .98103 | .89285 | 1.23148 | 1.16535 | 1.02648 |
| 22.000 | -5.00000 | 1934.81860 | 51.07553 | 564.94459 | 1.04689 | .98085 | .89285 | 1.21688 | 1.15457 | 1.02648 |
| 24.000 | -5.00000 | 1934.05588 | 51.04761 | 564.63582 | 1.03929 | .97697 | .89261 | 1.21688 | 1.15457 | 1.02648 |
| GRADIENT | .00000 | .12834 | .00388 | .03410 | .00212 | .00320 | .00996 | .00133 | .00241 | .00918 |

RMXL = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | BETA | PT | P | OCOMP | 0A1/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|---------------|----------|------------|----------|-----------|---------|---------|--------|---------|---------|---------|
| ALPHA = 0.000 | -5.00000 | 2547.37308 | 33.36888 | 508.68840 | 1.05861 | 1.01025 | .77431 | 1.29856 | 1.24920 | 1.01325 |
| 2.000 | -5.00000 | 2547.81790 | 33.37489 | 508.70000 | 1.06842 | 1.01947 | .79848 | 1.30482 | 1.25586 | 1.01325 |
| 4.000 | -5.00000 | 2546.94196 | 33.36394 | 508.53317 | 1.07705 | 1.02729 | .82809 | 1.31220 | 1.26244 | 1.01325 |
| 6.000 | -5.00000 | 2547.58006 | 33.37128 | 508.64510 | 1.07958 | 1.02658 | .84776 | 1.31231 | 1.25924 | 1.01325 |
| 8.000 | -5.00000 | 2547.17203 | 33.36708 | 508.58098 | 1.08411 | 1.02583 | .86751 | 1.31440 | 1.25613 | 1.01325 |
| 10.000 | -5.00000 | 2551.36157 | 33.42099 | 509.40276 | 1.09226 | 1.02243 | .87461 | 1.31819 | 1.24858 | 1.01325 |
| 12.000 | -5.00000 | 2555.54724 | 33.47840 | 510.24735 | 1.09835 | 1.01979 | .89026 | 1.32017 | 1.24468 | 1.01325 |
| 14.000 | -5.00000 | 2558.82321 | 33.51909 | 510.89791 | 1.10531 | 1.01799 | .90526 | 1.32017 | 1.23466 | 1.01325 |
| 16.000 | -5.00000 | 2563.65443 | 33.58292 | 511.87092 | 1.10689 | 1.01117 | .90526 | 1.31506 | 1.22212 | 1.01325 |
| 18.000 | -5.00000 | 2567.71115 | 33.63562 | 512.67408 | 1.10725 | 1.01475 | .89487 | 1.30893 | 1.21284 | 1.01325 |
| 20.000 | -5.00000 | 2572.38071 | 33.69739 | 513.61562 | 1.10709 | 1.01475 | .89487 | 1.30020 | 1.20786 | 1.01325 |
| 22.000 | -5.00000 | 2578.11011 | 33.77192 | 514.75453 | 1.09501 | 1.00508 | .88267 | 1.27919 | 1.18925 | 1.01325 |
| 24.000 | -5.00000 | 2578.93777 | 33.78332 | 514.92529 | 1.08260 | .99734 | .88267 | 1.26044 | 1.17514 | 1.01325 |
| GRADIENT | .00000 | -.10773 | -.00123 | -.01880 | .00436 | .00426 | .01345 | .00341 | .00331 | .01250 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-894 OA161 ORBITER + RAKES

(EE7804) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6909 IN. XO
LREF = 474.8000 IN. YMRP = 0080. IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AFLON = .000 BDFLAP = -7.170

RNYL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|--------|----------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.550 | .080 | -2.00000 | 1574.43616 | 398.83030 | 1039.23260 | .70177 | .69316 | .67692 | .93803 | .92942 | .93340C |
| 2.000 | 2.000 | -2.00000 | 1573.92516 | 398.70513 | 1038.90645 | .70188 | .68943 | .67942 | .93443 | .92198 | .91319 |
| 4.000 | 4.000 | -2.00000 | 1573.05887 | 398.48754 | 1038.33949 | .70623 | .69460 | .68477 | .93341 | .92179 | .91195 |
| 6.000 | 6.000 | -2.00000 | 1573.57761 | 398.62070 | 1038.68646 | .71227 | .70282 | .69075 | .93339 | .92332 | .91185 |
| 8.000 | 8.000 | -2.00000 | 1574.31860 | 398.81203 | 1039.18580 | .72558 | .71471 | .70585 | .93829 | .93043 | .91407 |
| 10.000 | 10.000 | -2.00000 | 1574.64066 | 398.88485 | 1039.37476 | .72794 | .72082 | .71108 | .93967 | .93255 | .91758 |
| 12.000 | 12.000 | -2.00000 | 1574.84332 | 398.93706 | 1039.51079 | .73836 | .72440 | .71862 | .94089 | .93452 | .92315 |
| 14.000 | 14.000 | -2.00000 | 1574.59084 | 398.87534 | 1039.34988 | .73556 | .72999 | .72510 | .94157 | .93448 | .92636 |
| 16.000 | 16.000 | -2.00000 | 1575.31888 | 398.05065 | 1038.85284 | .74030 | .73622 | .73010 | .93970 | .93448 | .92320 |
| 18.000 | 18.000 | -2.00000 | 1575.34929 | 399.06568 | 1038.84586 | .74681 | .74139 | .73504 | .93970 | .93449 | .91492 |
| 20.000 | 20.000 | -2.00000 | 1574.18409 | 396.76549 | 1038.06374 | .75250 | .74612 | .73926 | .92911 | .92297 | .91589 |
| 22.000 | 22.000 | -2.00000 | 1574.15891 | 398.76766 | 1039.06838 | .75328 | .74714 | .73926 | .92910 | .92320 | .91556 |
| 24.000 | 24.000 | -2.00000 | 1574.84804 | 398.94400 | 1039.92890 | .75684 | .75095 | .74330 | .92910 | .92320 | .91556 |
| GRADIENT | | | -.34433 | -.08569 | -.22328 | .00111 | .00836 | .00196 | -.00116 | -.00191 | -.00031 |

MACH = 1.750

| ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC | |
|----------|----------|------------|-----------|------------|--------|--------|--------|--------|---------|---------|---------|
| .000 | -2.00000 | 1650.91153 | 310.07685 | 1067.69946 | .71337 | .69653 | .68212 | .94674 | .93130 | .91569 | |
| 2.000 | -2.00000 | 1652.84775 | 310.44413 | 1069.98416 | .71986 | .69813 | .68960 | .94979 | .92804 | .91891 | |
| 4.000 | -2.00000 | 1653.85585 | 310.63168 | 1069.60992 | .71951 | .70096 | .69208 | .94941 | .93086 | .92197 | |
| 6.000 | -2.00000 | 1654.30829 | 310.72412 | 1069.92824 | .72361 | .71065 | .69770 | .95039 | .93743 | .92448 | |
| 8.000 | -2.00000 | 1653.79941 | 310.62094 | 1069.57295 | .73890 | .71798 | .69866 | .95284 | .93964 | .91040 | |
| 10.000 | -2.00000 | 1654.31114 | 310.72391 | 1069.92749 | .73731 | .71798 | .70050 | .95413 | .94382 | .91742 | |
| 12.000 | -2.00000 | 1655.38827 | 310.97964 | 1070.58706 | .74370 | .73349 | .71214 | .95384 | .94363 | .92268 | |
| 14.000 | -2.00000 | 1655.65390 | 310.97398 | 1070.78899 | .74685 | .73814 | .72572 | .95303 | .94432 | .92857 | |
| 16.000 | -2.00000 | 1654.93356 | 310.83946 | 1070.32539 | .75056 | .74209 | .72917 | .95392 | .94495 | .92857 | |
| 18.000 | -2.00000 | 1654.58614 | 310.96767 | 1070.76688 | .74828 | .74968 | .72917 | .95044 | .94138 | .92434 | |
| 20.000 | -2.00000 | 1657.05319 | 311.24283 | 1071.71434 | .76046 | .74968 | .72833 | .94584 | .93434 | .91341 | |
| 22.000 | -2.00000 | 1657.68533 | 311.36872 | 1072.11337 | .75421 | .73024 | .73024 | .94158 | .93012 | .90616 | |
| 24.000 | -2.00000 | 1657.51363 | 311.32766 | 1072.00642 | .76856 | .75880 | .73338 | .94013 | .93009 | .90497 | |
| GRADIENT | | | .13871 | .47761 | .00111 | .00154 | .00001 | .00032 | -.00011 | -.00011 | -.00123 |

TABULATED DATA - OA16L (ARC 11-97-87-09A)

ARC 11-97-87-09A OA16L ORBITER + RAKES

(EE7804) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6860 IN. X0
 I.REF = 474.8000 IN. YMRP = 0.0000 IN. Y0
 B.REF = 9361.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|--------------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| ALPHA | | | | | | | | | | |
| .000 | -2.00000 | 1846.93443 | 235.98358 | 1064.69649 | .75668 | .76001 | .67005 | .93291 | .96224 | .90627 |
| 2.000 | -2.00000 | 1846.41615 | 235.83478 | 1094.37723 | .76230 | .76346 | .67114 | .93562 | .96577 | .90445 |
| 4.000 | -2.00000 | 1846.47842 | 235.84348 | 1094.41763 | .76661 | .74014 | .67753 | .93956 | .96947 | .91665 |
| 6.000 | -2.00000 | 1847.01898 | 235.91540 | 1094.75133 | .77362 | .74768 | .68617 | .94621 | .97027 | .91876 |
| 8.000 | -2.00000 | 1846.98838 | 235.91268 | 1094.73879 | .77630 | .75073 | .70873 | .95331 | .98374 | .92744 |
| 10.000 | -2.00000 | 1846.95099 | 235.91120 | 1094.73189 | .77912 | .75777 | .72018 | .95903 | .97368 | .93609 |
| 12.000 | -2.00000 | 1846.64996 | 235.86971 | 1094.93934 | .78391 | .76525 | .72992 | .96509 | .97643 | .94110 |
| 14.000 | -2.00000 | 1846.59160 | 235.85966 | 1094.93934 | .79185 | .77331 | .74310 | .97376 | .97576 | .94555 |
| 16.000 | -2.00000 | 1847.17949 | 235.94132 | 1094.87161 | .79368 | .77331 | .74310 | .97376 | .97576 | .94555 |
| 18.000 | -2.00000 | 1846.84877 | 235.89649 | 1094.86362 | .79766 | .78205 | .75579 | .98160 | .97397 | .94771 |
| 20.000 | -2.00000 | 1846.81461 | 235.83847 | 1094.62637 | .80406 | .78123 | .75780 | .98501 | .98960 | .94616 |
| 22.000 | -2.00000 | 1847.91591 | 235.93847 | 1094.62637 | .80348 | .78358 | .75264 | .98528 | .96027 | .93396 |
| 24.000 | -2.00000 | 1846.02296 | 235.95847 | 1094.93123 | .80893 | .78358 | .74548 | .98017 | .96027 | .92217 |
| GRADIENT | .00000 | -.11399 | -.01502 | -.06971 | .80248 | .00353 | .00187 | .00068 | .00175 | .00007 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|--------------|----------|------------|-----------|------------|--------|--------|--------|---------|---------|--------|
| ALPHA | | | | | | | | | | |
| .000 | -2.00000 | 2069.32037 | 175.19234 | 1059.48225 | .83180 | .78632 | .69700 | 1.04112 | .99565 | .90632 |
| 2.000 | -2.00000 | 2059.98480 | 178.18426 | 1069.31013 | .83888 | .79528 | .70931 | 1.04475 | 1.00115 | .91568 |
| 4.000 | -2.00000 | 2059.56003 | 178.12785 | 1069.09161 | .84186 | .80133 | .71896 | 1.04694 | 1.00641 | .92404 |
| 6.000 | -2.00000 | 2060.01712 | 178.16692 | 1069.32610 | .84653 | .80612 | .73263 | 1.05077 | 1.01026 | .93696 |
| 8.000 | -2.00000 | 2060.34888 | 178.19534 | 1069.49667 | .85160 | .81384 | .74553 | 1.05257 | 1.01461 | .94630 |
| 10.000 | -2.00000 | 2060.24348 | 178.18648 | 1069.44347 | .85480 | .81952 | .75661 | 1.05467 | 1.01647 | .95248 |
| 12.000 | -2.00000 | 2060.47052 | 178.18653 | 1069.44347 | .85422 | .82392 | .76875 | 1.05677 | 1.01648 | .96131 |
| 14.000 | -2.00000 | 2060.47052 | 178.20613 | 1069.56143 | .85422 | .82431 | .77892 | 1.04234 | 1.01368 | .96613 |
| 16.000 | -2.00000 | 2060.56393 | 178.21377 | 1069.68732 | .85598 | .82392 | .78592 | 1.03970 | 1.00762 | .96934 |
| 18.000 | -2.00000 | 2060.03616 | 178.16844 | 1069.33624 | .85817 | .82990 | .79072 | 1.02407 | 1.00762 | .96934 |
| 20.000 | -2.00000 | 2060.44746 | 178.20315 | 1069.54393 | .86231 | .82655 | .78236 | 1.02407 | .99829 | .95432 |
| 22.000 | -2.00000 | 2060.15353 | 178.17854 | 1069.39586 | .86367 | .83657 | .78346 | 1.00421 | 1.00421 | .95165 |
| 24.000 | -2.00000 | 2060.04485 | 178.16928 | 1069.34026 | .84654 | .78884 | .73281 | .96624 | .93715 | .88110 |
| GRADIENT | .00000 | -.19003 | -.01627 | -.09767 | .00252 | .00375 | .00549 | .00146 | .00269 | .00443 |

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 ATLRON = .000 BDFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA
 SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = 0.0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA
 BETA = -2.000 ELEVON = .000
 ALPHA = .000 BOFLAP = -7.170

RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PF | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|--------|----------|------------|----------|-----------|--------|--------|--------|---------|---------|---------|
| 2.500 | .000 | -2.00000 | 1497.7722 | 87.59769 | 659.27609 | .86577 | .81265 | .69169 | 1.08966 | 1.03675 | 0.33400 |
| 2.000 | 2.000 | -2.00000 | 1497.76450 | 87.59732 | 659.26928 | .87801 | .81854 | .70108 | 1.09188 | 1.04040 | 0.31559 |
| 4.000 | 4.000 | -2.00000 | 1497.76714 | 87.59741 | 659.27081 | .87848 | .82783 | .71726 | 1.09638 | 1.04714 | 0.29295 |
| 6.000 | 6.000 | -2.00000 | 1497.74226 | 87.59619 | 659.26681 | .88198 | .83712 | .73223 | 1.09498 | 1.05312 | 0.27323 |
| 8.000 | 8.000 | -2.00000 | 1497.75372 | 87.59682 | 659.26657 | .88432 | .84324 | .74931 | 1.09845 | 1.05687 | 0.25304 |
| 10.000 | 10.000 | -2.00000 | 1497.67010 | 87.59167 | 659.26676 | .88932 | .84985 | .76992 | 1.09673 | 1.05725 | 0.23652 |
| 12.000 | 12.000 | -2.00000 | 1498.01534 | 87.61195 | 659.37941 | .88840 | .85298 | .77779 | 1.09480 | 1.05938 | 0.22119 |
| 14.000 | 14.000 | -2.00000 | 1494.68498 | 87.41497 | 657.89693 | .88757 | .85336 | .78926 | 1.08860 | 1.05429 | 0.20819 |
| 16.000 | 16.000 | -2.00000 | 1494.60895 | 87.41100 | 657.86705 | .88396 | .85149 | .79336 | 1.07797 | 1.04550 | 0.19735 |
| 18.000 | 18.000 | -2.00000 | 1495.08078 | 87.43812 | 658.07867 | .88263 | .84983 | .79520 | 1.07009 | 1.03759 | 0.18656 |
| 20.000 | 20.000 | -2.00000 | 1494.25999 | 87.38984 | 657.70778 | .88216 | .84914 | .79710 | 1.06331 | 1.03069 | 0.17500 |
| 22.000 | 22.000 | -2.00000 | 1494.70457 | 87.41660 | 657.90915 | .87840 | .84558 | .79540 | 1.05668 | 1.02318 | 0.16425 |
| 24.000 | 24.000 | -2.00000 | 1494.94550 | 87.43099 | 658.01747 | .87727 | .84644 | .79506 | 1.04546 | 1.01466 | 0.15448 |
| GRADIENT | | .00000 | -.00127 | -.00007 | -.00052 | .00268 | .00359 | .00639 | .00168 | .00260 | .00548 |

RM/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|--------|----------|------------|----------|-----------|---------|--------|--------|---------|---------|---------|
| 3.000 | .000 | -2.00000 | 1942.79845 | 51.29598 | 567.38300 | .99235 | .91004 | .71599 | 1.20960 | 1.12728 | 0.33400 |
| 2.000 | 2.000 | -2.00000 | 1938.96528 | 51.22303 | 566.57606 | .99882 | .91961 | .73443 | 1.21436 | 1.13535 | 0.33213 |
| 4.000 | 4.000 | -2.00000 | 1937.25540 | 51.15163 | 565.78629 | 1.00021 | .92468 | .74761 | 1.21345 | 1.13792 | 0.30886 |
| 6.000 | 6.000 | -2.00000 | 1932.01018 | 51.02006 | 564.33104 | 1.00398 | .93462 | .78137 | 1.21584 | 1.14648 | 0.28324 |
| 8.000 | 8.000 | -2.00000 | 1931.75523 | 51.01216 | 564.24371 | 1.00424 | .94098 | .79316 | 1.21260 | 1.14934 | 0.26152 |
| 10.000 | 10.000 | -2.00000 | 1932.19310 | 51.02143 | 564.34621 | 1.00594 | .94909 | .81020 | 1.21139 | 1.15454 | 0.24165 |
| 12.000 | 12.000 | -2.00000 | 1932.51784 | 51.02795 | 564.41837 | 1.00444 | .95455 | .83116 | 1.20565 | 1.15625 | 0.22286 |
| 14.000 | 14.000 | -2.00000 | 1931.38788 | 50.98654 | 563.96830 | 1.00244 | .95082 | .84712 | 1.19796 | 1.14754 | 0.20465 |
| 16.000 | 16.000 | -2.00000 | 1932.10713 | 51.00635 | 564.17945 | .99656 | .94438 | .85208 | 1.18808 | 1.13591 | 0.18361 |
| 18.000 | 18.000 | -2.00000 | 1931.43526 | 50.99056 | 564.00479 | .99104 | .93631 | .84895 | 1.17618 | 1.12445 | 0.16409 |
| 20.000 | 20.000 | -2.00000 | 1931.86768 | 50.99784 | 564.08523 | .98749 | .93631 | .84895 | 1.16685 | 1.11125 | 0.14575 |
| 22.000 | 22.000 | -2.00000 | 1932.01346 | 51.00587 | 564.17412 | .97830 | .92270 | .84221 | 1.15179 | 1.09619 | 0.12570 |
| 24.000 | 24.000 | -2.00000 | 1931.72012 | 50.99929 | 564.10132 | .96844 | .91310 | .83683 | 1.13365 | 1.08031 | 0.10415 |
| GRADIENT | | .00000 | -1.38574 | -.03609 | -.39918 | .00196 | .00366 | .00794 | .00896 | .00266 | .00681 |

TABLULATED DATA - 0A15L (ARC 11-97-87-094)

(EE7804) (02 AUG 76)

ARC 11-97-87-094 0A15L ORBITER + RAKES

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ATLRON = .080 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .03000

RM/L = 1.99 GRADIENTS INTERVAL = -5.00X 5.00

| MACH = | ALPHA | BETA | PT | P | OCOMP | Q11/QC | Q21/QC | Q31/QC | Q12/QC | Q23/QC | Q33/QC |
|----------|--------|----------|------------|----------|-----------|---------|--------|--------|---------|---------|---------|
| 3.500 | .000 | -2.00000 | 2608.07135 | 34.16512 | 520.74471 | 1.04111 | .93295 | .68251 | 1.24982 | 1.14165 | .89122 |
| 2.000 | 2.000 | -2.00000 | 2609.47937 | 34.18432 | 521.03742 | 1.04525 | .94643 | .70154 | 1.25392 | 1.15510 | .91020 |
| 4.000 | 4.000 | -2.00000 | 2610.52699 | 34.19799 | 521.24970 | 1.04705 | .95845 | .72950 | 1.25394 | 1.16535 | .93540 |
| 6.000 | 6.000 | -2.00000 | 2614.11072 | 34.24500 | 521.96236 | 1.04738 | .96512 | .76785 | 1.25253 | 1.17028 | .97298 |
| 8.000 | 8.000 | -2.00000 | 2614.27722 | 34.24722 | 521.98606 | 1.04714 | .97473 | .78257 | 1.24993 | 1.17752 | .98535 |
| 10.000 | 10.000 | -2.00000 | 2619.19357 | 34.31230 | 522.27668 | 1.04203 | .97697 | .79936 | 1.24303 | 1.17802 | 1.00042 |
| 12.000 | 12.000 | -2.00000 | 2615.71823 | 34.26553 | 522.27668 | 1.04434 | .96917 | .82978 | 1.24050 | 1.17883 | 1.02594 |
| 14.000 | 14.000 | -2.00000 | 2617.88397 | 34.29432 | 522.71407 | 1.03733 | .97223 | .84051 | 1.26877 | 1.16367 | 1.03194 |
| 16.000 | 16.000 | -2.00000 | 2615.78174 | 34.26626 | 522.28640 | 1.02732 | .95783 | .84056 | 1.21300 | 1.14351 | 1.02624 |
| 18.000 | 18.000 | -2.00000 | 2617.10403 | 34.28431 | 522.56139 | 1.02395 | .95009 | .83833 | 1.20277 | 1.12891 | 1.01715 |
| 20.000 | 20.000 | -2.00000 | 2615.61575 | 34.25406 | 522.25275 | 1.01619 | .94014 | .83194 | 1.18991 | 1.11387 | 1.00567 |
| 22.000 | 22.000 | -2.00000 | 2619.49889 | 34.31592 | 523.04321 | 1.00541 | .93035 | .82447 | 1.17320 | 1.09813 | .99225 |
| 24.000 | 24.000 | -2.00000 | 2624.04565 | 34.37497 | 523.94328 | .98925 | .91442 | .81531 | 1.15161 | 1.07678 | .97767 |
| GRADIENT | | .00000 | .51442 | .09822 | .12524 | .00148 | .00637 | .01175 | .00103 | .00582 | .01129 |

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OF POOR QUALITY

(EE7805) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-094)
 ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 1076.6880 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6880 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RNKL = 4.23 GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | FT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | .00000 | 2635.13434 | 2067.16883 | 588.96451 | .89398 | .89446 | .89305 | 1.12537 | 1.12585 | 1.12444 |
| 2.000 | .000 | .00000 | 2636.45282 | 2067.42532 | 569.02730 | .88809 | .88907 | .88885 | 1.11089 | 1.11086 | 1.11063 |
| 4.000 | .000 | .00000 | 2638.36844 | 2068.84036 | 569.52808 | .89006 | .89049 | .88996 | 1.11298 | 1.11333 | 1.11288 |
| 6.000 | .000 | .00000 | 2635.85572 | 2067.04514 | 568.79059 | .87772 | .87849 | .87976 | 1.09338 | 1.09415 | 1.09542 |
| 8.000 | .000 | .00000 | 2635.20016 | 2067.24875 | 568.95142 | .88733 | .88617 | .88669 | 1.09849 | 1.09733 | 1.09786 |
| 10.000 | .000 | .00000 | 2635.93494 | 2067.10458 | 568.83035 | .88837 | .88977 | .88717 | 1.08649 | 1.08789 | 1.08529 |
| 12.000 | .000 | .00000 | 2635.46613 | 2066.78952 | 568.67661 | .90760 | .90722 | .90778 | 1.10092 | 1.10055 | 1.10110 |
| 14.000 | .000 | .00000 | 2636.11768 | 2067.19876 | 568.91891 | .93643 | .93643 | .93606 | 1.11316 | 1.11163 | 1.11337 |
| 16.000 | .000 | .00000 | 2636.08533 | 2067.16296 | 568.92236 | .95785 | .95706 | .95706 | 1.12025 | 1.11882 | 1.11937 |
| 18.000 | .000 | .00000 | 2638.61063 | 2068.99408 | 568.61665 | 1.00500 | 1.00620 | 1.00484 | 1.14421 | 1.14542 | 1.14406 |
| 20.000 | .000 | .00000 | 2634.47891 | 2065.12332 | 568.55958 | 1.03744 | 1.04063 | 1.03636 | 1.16084 | 1.16420 | 1.15976 |
| 22.000 | .000 | .00000 | 2650.10681 | 2062.55417 | 567.55264 | 1.06864 | 1.07253 | 1.06205 | 1.17322 | 1.17711 | 1.16663 |
| 24.000 | .000 | .00000 | 2629.67941 | 2061.72964 | 567.94977 | 1.10694 | 1.11438 | 1.09338 | 1.16684 | 1.16418 | 1.17327 |
| GRADIENT | | .00000 | .55853 | .41762 | .14089 | -.08098 | -.09101 | -.00077 | -.00310 | -.00313 | -.00289 |

RNKL = 4.23 GRADIENT INTERVAL = -5.00% 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .900 | .000 | .00000 | 2113.98108 | 1249.92923 | 864.05185 | .76875 | .76181 | .76156 | 1.02205 | 1.02312 | 1.02287 |
| 2.000 | .000 | .00000 | 2112.05286 | 1248.77396 | 863.27899 | .75172 | .75155 | .75489 | 0.99734 | 0.99717 | 0.99751 |
| 4.000 | .000 | .00000 | 2118.18896 | 1252.35219 | 863.83621 | .75709 | .75567 | .75566 | 0.99055 | 0.98914 | 0.98912 |
| 6.000 | .000 | .00000 | 2114.64374 | 1250.29312 | 864.34464 | .75287 | .75279 | .75192 | 0.97203 | 0.97196 | 0.97108 |
| 8.000 | .000 | .00000 | 2110.03122 | 1247.57364 | 862.45758 | .75281 | .75065 | .75041 | 0.96266 | 0.96080 | 0.96066 |
| 10.000 | .000 | .00000 | 2112.73361 | 1249.11789 | 863.61572 | .76509 | .76441 | .76443 | 0.95896 | 0.95989 | 0.96031 |
| 12.000 | .000 | .00000 | 2114.69836 | 1250.25999 | 864.43839 | .77934 | .77931 | .77640 | 0.95619 | 0.95997 | 0.95806 |
| 14.000 | .000 | .00000 | 2117.13947 | 1251.78624 | 865.41324 | .79511 | .79564 | .79468 | 0.95133 | 0.95176 | 0.95091 |
| 16.000 | .000 | .00000 | 2116.02139 | 1251.05911 | 865.96329 | .81584 | .81682 | .81589 | 0.92663 | 0.92652 | 0.92688 |
| 18.000 | .000 | .00000 | 2113.29510 | 1249.47339 | 863.82172 | .83631 | .83716 | .83733 | 0.91134 | 0.91279 | 0.91236 |
| 20.000 | .000 | .00000 | 2111.35150 | 1248.25099 | 863.10052 | .85083 | .85266 | .85091 | 0.90496 | 0.90699 | 0.90510 |
| 22.000 | .000 | .00000 | 2110.78241 | 1247.85742 | 862.92499 | .86933 | .86942 | .86939 | 0.90746 | 1.00055 | 0.90763 |
| 24.000 | .000 | .00000 | 2113.14288 | 1249.38358 | 863.75931 | .92400 | .92933 | .91766 | 1.00870 | 1.01393 | 1.00236 |
| GRADIENT | | .00000 | 1.05184 | .60574 | .44609 | -.00892 | -.00153 | -.00148 | -.00788 | -.00849 | -.00844 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .00% ELEVON = .000
APLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XC
LREF = 1.748000 IN. YMRP = .0000 IN. YC
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZC
SCALE = .0300

RVL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.290 | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 0413/OC | 023/OC | 033/OC |
|--------------|------------|-----------|------------|--------|--------|--------|--------|---------|--------|--------|
| .0000 | 2003.78401 | 828.63678 | 1168.30751 | .65887 | .66387 | .66299 | .66064 | .86049 | .86049 | .86049 |
| .0000 | 2008.93002 | 827.95351 | 1165.34581 | .66833 | .66760 | .66612 | .85071 | .84999 | .84999 | .84999 |
| .0000 | 2016.96340 | 827.74996 | 1165.05922 | .65813 | .65721 | .65603 | .83721 | .83529 | .83529 | .83529 |
| .0000 | 2012.21327 | 823.46896 | 1167.47879 | .67407 | .67347 | .67243 | .83817 | .83657 | .83657 | .83657 |
| .0000 | 2011.68602 | 829.32592 | 1167.27747 | .67508 | .67550 | .67452 | .83672 | .83714 | .83615 | .83615 |
| .0000 | 2012.05740 | 829.42208 | 1167.41281 | .68147 | .68224 | .68103 | .84907 | .84983 | .84863 | .84863 |
| .0000 | 2012.68660 | 829.63239 | 1167.71867 | .68911 | .68904 | .68808 | .87909 | .87903 | .87903 | .87903 |
| .0000 | 2012.78661 | 829.69245 | 1167.79337 | .69487 | .69397 | .69283 | .88441 | .88351 | .88257 | .88257 |
| .0000 | 2011.04118 | 829.14474 | 1167.02446 | .70974 | .70937 | .70802 | .91158 | .91158 | .91158 | .91158 |
| .0000 | 2012.20638 | 829.51370 | 1167.54176 | .72993 | .73058 | .72924 | .91668 | .91621 | .91621 | .91621 |
| .0000 | 2018.50417 | 831.53033 | 1170.38017 | .74589 | .74706 | .74493 | .92707 | .92825 | .92825 | .92825 |
| .0000 | 2017.94965 | 831.40863 | 1170.30888 | .76146 | .76335 | .76035 | .93211 | .93425 | .93425 | .93425 |
| .0000 | 2014.63448 | 830.32520 | 1168.68395 | .77770 | .78090 | .77573 | .95442 | .95442 | .95442 | .95442 |
| .0000 | 2014.70765 | .22172 | .31207 | .00103 | .00084 | .00076 | .00586 | .00586 | .00586 | .00586 |

RVL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.400 | BETA | PT | P | OCOMP | 041/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|--------------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|--------|
| .0000 | 2043.25790 | 642.23148 | 1316.08347 | .66633 | .65867 | .65783 | .80343 | .80343 | .80343 | .80343 |
| .0000 | 2048.25000 | 643.57806 | 1318.84284 | .67719 | .67131 | .67175 | .89923 | .89336 | .89336 | .89336 |
| .0000 | 2046.36710 | 643.02779 | 1317.71530 | .67721 | .67253 | .67182 | .89802 | .89331 | .89261 | .89261 |
| .0000 | 2036.68442 | 640.56550 | 1312.67154 | .67918 | .67258 | .67258 | .89555 | .88957 | .88957 | .88957 |
| .0000 | 2035.48167 | 640.58581 | 1312.71315 | .68522 | .68047 | .67901 | .89446 | .89471 | .89504 | .89504 |
| .0000 | 2037.06380 | 640.77697 | 1313.10286 | .68976 | .68495 | .68420 | .90113 | .89544 | .89544 | .89544 |
| .0000 | 2032.87712 | 639.62427 | 1310.74069 | .69595 | .69015 | .69229 | .90366 | .89746 | .89560 | .89560 |
| .0000 | 2034.53185 | 640.07636 | 1311.66714 | .69680 | .69154 | .69265 | .90869 | .90344 | .90455 | .90455 |
| .0000 | 2038.71129 | 641.14881 | 1313.86484 | .70602 | .70117 | .70222 | .90869 | .90344 | .90455 | .90455 |
| .0000 | 2034.88971 | 640.10445 | 1311.72459 | .72088 | .71577 | .71577 | .91213 | .90728 | .90833 | .90833 |
| .0000 | 2029.02078 | 638.64844 | 1308.74086 | .72573 | .72172 | .72172 | .91629 | .91117 | .91283 | .91283 |
| .0000 | 2029.79141 | 638.90320 | 1309.26305 | .73769 | .73271 | .73265 | .91965 | .91463 | .91692 | .91692 |
| .0000 | 2028.09665 | 638.46732 | 1308.36984 | .74509 | .74071 | .74056 | .92131 | .91694 | .91678 | .91678 |
| .0000 | 2028.77729 | .19908 | .40786 | .00272 | .00347 | .00350 | .00136 | .00136 | .00136 | .00136 |

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(EE7805) (02 AUG 76)

TABLATED DATA - 0A161 (ARC : 1-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ATLRON = .000 BDFLAP = -.7170

RN/L = 3.05 GRAQIENT INTERVAL = -5.00/ 5.00

| MACH = 1.580 | ALPHA | BETA | PT | P | OCCMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|--------------|-------|-------|------------|-----------|------------|--------|---------|--------|---------|---------|---------|
| .000 | .000 | .0000 | 1587.54596 | 401.10618 | 1045.16287 | .71973 | .71091 | .69500 | .94411 | .93528 | .91938 |
| 2.000 | .000 | .0000 | 1581.96228 | 401.46997 | 1046.11082 | .72116 | .70681 | .69794 | .94114 | .92679 | .91792 |
| 4.000 | .000 | .0000 | 1581.60306 | 401.36976 | 1045.81969 | .72217 | .70914 | .69917 | .94110 | .92807 | .91809 |
| 6.000 | .000 | .0000 | 1581.71835 | 401.39628 | 1045.91879 | .72813 | .71830 | .70517 | .93953 | .92970 | .91656 |
| 8.000 | .000 | .0000 | 1582.28792 | 401.54744 | 1046.31267 | .73869 | .73081 | .71528 | .94591 | .93803 | .92251 |
| 10.000 | .000 | .0000 | 1584.01578 | 401.96475 | 1047.40005 | .73988 | .73330 | .71792 | .94498 | .93837 | .92300 |
| 12.000 | .000 | .0000 | 1584.74577 | 402.14309 | 1047.85476 | .74283 | .73611 | .72301 | .94479 | .93808 | .92497 |
| 14.000 | .000 | .0000 | 1584.30254 | 402.03269 | 1047.57710 | .74887 | .74388 | .73165 | .94655 | .94155 | .92932 |
| 16.000 | .000 | .0000 | 1584.53708 | 402.09357 | 1047.73722 | .74885 | .74885 | .73806 | .94560 | .94052 | .92974 |
| 18.000 | .000 | .0000 | 1585.24020 | 402.26379 | 1048.17926 | .75986 | .75228 | .73915 | .94134 | .93375 | .92063 |
| 20.000 | .000 | .0000 | 1585.26917 | 402.27295 | 1048.20312 | .76124 | .75501 | .74555 | .93737 | .93113 | .92168 |
| 22.000 | .000 | .0000 | 1584.67165 | 402.12355 | 1047.91384 | .76553 | .76029 | .75258 | .94098 | .93573 | .92803 |
| 24.000 | .000 | .0000 | 1584.25276 | 402.01530 | 1047.53178 | .77226 | .76672 | .75137 | .94215 | .93562 | .92127 |
| GRADIENT | | .0000 | .26428 | .06590 | .17171 | .00061 | -.00044 | .00104 | -.00075 | -.00180 | -.00032 |

RN/L = 3.04 GRAQIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | ALPHA | BETA | PT | P | OCCMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|--------------|-------|-------|------------|-----------|------------|--------|--------|---------|---------|---------|---------|
| .000 | .000 | .0000 | 1657.74608 | 311.37225 | 1072.15997 | .72564 | .70825 | .67469 | .95247 | .93508 | .90152 |
| 2.000 | .000 | .0000 | 1657.99976 | 311.41864 | 1072.31970 | .72965 | .70881 | .67530 | .94982 | .92998 | .89346 |
| 4.000 | .000 | .0000 | 1657.20947 | 311.27179 | 1071.81404 | .73043 | .71110 | .67441 | .95028 | .93095 | .89426 |
| 6.000 | .000 | .0000 | 1656.47336 | 311.13422 | 1071.34033 | .73562 | .72276 | .69047 | .94114 | .94127 | .90888 |
| 8.000 | .000 | .0000 | 1657.27676 | 311.28436 | 1071.85733 | .74490 | .72937 | .70151 | .95415 | .93957 | .91170 |
| 10.000 | .000 | .0000 | 1657.32759 | 311.29292 | 1071.88681 | .74884 | .73722 | .71209 | .94252 | .94252 | .91739 |
| 12.000 | .000 | .0000 | 1656.50383 | 311.14008 | 1071.35053 | .75950 | .74483 | .72272 | .95666 | .94419 | .92406 |
| 14.000 | .000 | .0000 | 1657.07522 | 311.24621 | 1071.72598 | .76100 | .75028 | .73183 | .95400 | .94327 | .92483 |
| 16.000 | .000 | .0000 | 1656.60486 | 311.15863 | 1071.42461 | .76237 | .75262 | .73901 | .95276 | .94300 | .92539 |
| 18.000 | .000 | .0000 | 1656.32849 | 311.10577 | 1071.24562 | .76182 | .74984 | .72555 | .94927 | .93729 | .90983 |
| 20.000 | .000 | .0000 | 1656.80373 | 311.19492 | 1071.54903 | .76595 | .75410 | .72787 | .94792 | .93506 | .90971 |
| 22.000 | .000 | .0000 | 1657.27647 | 311.28266 | 1071.85149 | .77235 | .76143 | .73567 | .94640 | .93548 | .90430 |
| 24.000 | .000 | .0000 | 1657.16254 | 311.26139 | 1071.77823 | .77307 | .76269 | .73461 | .94275 | .93237 | .90430 |
| GRADIENT | | .0000 | -.13413 | -.02512 | -.08649 | .00120 | .00071 | -.00007 | -.00055 | -.00103 | -.00182 |

(EE7808J (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES.

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RM/L = 3.05 GRADIENT INTERVAL = -5.08/ 5.00

| MACH = 2.000 | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|--------------|--------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| ALPHA | .0000 | 1847.14075 | 235.84824 | 1094.43971 | .75714 | .72261 | .66948 | .97754 | .94321 | .88988 |
| 2.000 | .0000 | 1846.77534 | 235.80064 | 1094.21881 | .76154 | .73336 | .67818 | .99174 | .95355 | .89838 |
| 4.000 | .0000 | 1847.05482 | 235.63535 | 1094.37987 | .76848 | .74112 | .68943 | .98446 | .95789 | .90540 |
| 6.000 | .0000 | 1846.70287 | 235.79072 | 1094.17278 | .77391 | .74523 | .69670 | .98494 | .95826 | .90773 |
| 8.000 | .0000 | 1846.84723 | 235.80916 | 1094.25836 | .78014 | .75230 | .70886 | .98386 | .95872 | .91228 |
| 10.000 | .0000 | 1847.73477 | 235.93651 | 1094.84930 | .78760 | .76388 | .72510 | .98649 | .96277 | .92398 |
| 12.000 | .0000 | 1847.06197 | 235.84271 | 1094.41403 | .78538 | .76398 | .72960 | .98268 | .96128 | .92590 |
| 14.000 | .0000 | 1846.76268 | 235.79962 | 1094.21408 | .78860 | .76388 | .73440 | .98426 | .96484 | .92906 |
| 16.000 | .0000 | 1846.78920 | 235.81372 | 1094.26558 | .79147 | .77211 | .74449 | .98207 | .96271 | .93509 |
| 18.000 | .0000 | 1846.62433 | 235.78563 | 1094.14917 | .79611 | .77655 | .74461 | .97755 | .95800 | .92505 |
| 20.000 | .0000 | 1846.86009 | 235.81953 | 1094.30649 | .80011 | .78313 | .75158 | .97184 | .95132 | .91494 |
| 22.000 | .0000 | 1846.82597 | 235.81627 | 1094.29134 | .80364 | .78313 | .74158 | .97184 | .95132 | .91494 |
| 24.000 | .0000 | 1845.84973 | 235.66845 | 1093.68892 | .80597 | .78624 | .74532 | .96277 | .94304 | .90212 |
| GRADIENT | .00000 | -.01898 | -.00322 | -.01495 | .00284 | .00463 | .00499 | .00173 | .00352 | .00368 |

| MACH = 2.250 | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|--------------|--------|------------|-----------|------------|--------|--------|--------|---------|--------|--------|
| ALPHA | .0000 | 2059.62274 | 178.13523 | 1069.13588 | .80526 | .75816 | .67082 | 1.00966 | .96236 | .87522 |
| 2.000 | .0000 | 2058.69022 | 178.14101 | 1068.17059 | .81220 | .76594 | .68315 | 1.01267 | .96641 | .88362 |
| 4.000 | .0000 | 2058.24142 | 178.10249 | 1068.93941 | .81874 | .77774 | .69715 | 1.01449 | .97349 | .89291 |
| 6.000 | .0000 | 2059.67896 | 178.13995 | 1069.16425 | .82494 | .78356 | .71171 | 1.01984 | .97767 | .90581 |
| 8.000 | .0000 | 2058.63447 | 178.13654 | 1069.14375 | .82998 | .78996 | .71980 | 1.02051 | .98148 | .91132 |
| 10.000 | .0000 | 2059.11799 | 178.09175 | 1069.87497 | .83430 | .79714 | .73637 | 1.02278 | .98582 | .92485 |
| 12.000 | .0000 | 2058.74341 | 178.05964 | 1068.68224 | .83629 | .80496 | .74830 | 1.02104 | .98971 | .93305 |
| 14.000 | .0000 | 2059.55093 | 178.12621 | 1069.09737 | .83864 | .80864 | .75775 | 1.01744 | .99349 | .94247 |
| 16.000 | .0000 | 2059.35752 | 178.11318 | 1069.00357 | .83998 | .81121 | .76509 | 1.01536 | .99759 | .95247 |
| 18.000 | .0000 | 2058.83890 | 178.05788 | 1068.73170 | .84156 | .81156 | .76578 | 1.01229 | .99833 | .95759 |
| 20.000 | .0000 | 2059.20343 | 178.09303 | 1068.31862 | .84388 | .81594 | .77194 | 1.00163 | .99775 | .96115 |
| 22.000 | .0000 | 2058.94348 | 178.07670 | 1068.78462 | .84388 | .81594 | .77194 | 1.00687 | .99687 | .96115 |
| 24.000 | .0000 | 2058.65312 | 178.06898 | 1068.73825 | .84388 | .81594 | .77194 | .95785 | .99687 | .96115 |
| GRADIENT | .00000 | -.09532 | -.00818 | -.04911 | .00337 | .00489 | .00658 | .00121 | .00273 | .00442 |

(EE7BDB) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-084)
ARC 11-97-87-084 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2890.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|-------|----------|--------|------------|----------|-----------|--------|--------|--------|---------|---------|--------|
| 2.500 | .000 | .00000 | 1495.02940 | 87.42978 | 656.00838 | .83837 | .77883 | .68406 | 1.04496 | .98552 | .81865 |
| | 2.000 | .00000 | 1486.07198 | 87.43218 | 656.02643 | .84409 | .78858 | .67937 | 1.04922 | .99371 | .82850 |
| | 4.000 | .00000 | 1494.35016 | 87.38912 | 657.78238 | .84970 | .78917 | .69181 | 1.05138 | 1.00088 | .83350 |
| | 6.000 | .00000 | 1494.94664 | 87.42504 | 657.97271 | .85425 | .80507 | .71016 | 1.05305 | 1.00400 | .82896 |
| | 8.000 | .00000 | 1495.11034 | 87.43490 | 658.04685 | .86086 | .81269 | .72104 | 1.05704 | 1.00906 | .91722 |
| | 10.000 | .00000 | 1494.33298 | 87.38847 | 657.69749 | .86581 | .82158 | .73249 | 1.05972 | 1.01550 | .92540 |
| | 12.000 | .00000 | 1494.98853 | 87.42791 | 657.99431 | .86843 | .82885 | .75284 | 1.05665 | 1.01907 | .94307 |
| | 14.000 | .00000 | 1494.32796 | 87.38815 | 657.69506 | .87158 | .83350 | .76574 | 1.05164 | 1.01937 | .95261 |
| | 16.000 | .00000 | 1494.89258 | 87.42212 | 657.95069 | .87026 | .83167 | .77002 | 1.05456 | 1.01303 | .95140 |
| | 18.000 | .00000 | 1494.35973 | 87.39025 | 657.71090 | .86951 | .83368 | .77877 | 1.04964 | 1.00964 | .95472 |
| | 20.000 | .00000 | 1494.85465 | 87.41989 | 657.93397 | .86706 | .83370 | .78156 | 1.03893 | 1.00557 | .95343 |
| | 22.000 | .00000 | 1494.36290 | 87.39047 | 657.71252 | .86136 | .82695 | .77575 | 1.02971 | .99531 | .94410 |
| | 24.000 | .00000 | 1494.88579 | 87.42173 | 657.94775 | .85465 | .82282 | .77364 | 1.01746 | .98562 | .93644 |
| | GRADIENT | .00000 | -.16982 | -.01016 | -.07658 | .00283 | .00506 | .00694 | .00161 | .00384 | .00571 |

RM/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|-------|----------|--------|------------|----------|-----------|--------|--------|--------|---------|---------|--------|
| 3.000 | .000 | .00000 | 1340.57863 | 51.17667 | 566.06326 | .93973 | .84323 | .66076 | 1.14132 | 1.04482 | .86234 |
| | 2.000 | .00000 | 1340.33086 | 51.16886 | 565.97688 | .94723 | .86882 | .67658 | 1.14823 | 1.05982 | .87757 |
| | 4.000 | .00000 | 1339.42018 | 51.14571 | 565.72091 | .95353 | .87231 | .69623 | 1.15300 | 1.07177 | .89569 |
| | 6.000 | .00000 | 1339.65381 | 51.15574 | 565.94290 | .95599 | .87838 | .72430 | 1.15309 | 1.07546 | .92139 |
| | 8.000 | .00000 | 1338.91023 | 51.13770 | 565.63232 | .96090 | .88599 | .73869 | 1.15552 | 1.08659 | .93330 |
| | 10.000 | .00000 | 1339.71480 | 51.16037 | 565.89296 | .96351 | .89394 | .75796 | 1.15631 | 1.08574 | .94975 |
| | 12.000 | .00000 | 1339.08939 | 51.14639 | 565.72841 | .96884 | .90783 | .76682 | 1.15706 | 1.09604 | .97504 |
| | 14.000 | .00000 | 1339.37943 | 51.15133 | 565.78307 | .96705 | .90858 | .80006 | 1.15142 | 1.09256 | .98444 |
| | 16.000 | .00000 | 1338.79555 | 51.13805 | 565.63618 | .96033 | .90300 | .80938 | 1.14094 | 1.08361 | .98999 |
| | 18.000 | .00000 | 1339.37152 | 51.15323 | 565.80401 | .95473 | .89979 | .81425 | 1.12954 | 1.07460 | .98906 |
| | 20.000 | .00000 | 1339.61790 | 51.16009 | 565.87995 | .94597 | .89249 | .81197 | 1.11551 | 1.06203 | .98151 |
| | 22.000 | .00000 | 1338.80849 | 51.13827 | 565.63856 | .93122 | .87791 | .79910 | 1.09609 | 1.04279 | .96397 |
| | 24.000 | .00000 | 1339.35316 | 51.15332 | 565.80502 | .92585 | .87405 | .80110 | 1.03636 | 1.03426 | .96131 |
| | GRADIENT | .00000 | -.28961 | -.00774 | -.08559 | .00345 | .00727 | .00887 | .00293 | .00674 | .00834 |

TABULATED DATA - CA1F1 (ARC 11-97-87-09%)
ARC 11-97-97-09% CA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ATLRON = .000 BDFLAP = -7.178

REFERENCE DATA

SREF = 2690.0000 SQ. FT.
LREF = 474.8000 IN.
BREF = 936.6800 IN.
SCALE = .0300

YMRP = 1076.6800 IN. X0
YMRP = .0000 IN. Y0
ZMRP = 375.0000 IN. Z0

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 043/OC | 023/OC | 033/OC |
|--------------|--------|------------|----------|-----------|---------|--------|--------|---------|---------|---------|---------|
| .000 | .00000 | 2633.31985 | 34.57549 | 526.99933 | .97751 | .85349 | .61805 | 1.16807 | 1.04405 | 1.04405 | 0.93/OC |
| 2.000 | .00000 | 2640.01656 | 34.58445 | 527.13617 | .98655 | .87074 | .63439 | 1.17696 | 1.06116 | 1.06116 | .80862 |
| 4.000 | .00000 | 2640.88896 | 34.59588 | 527.31057 | .99302 | .88551 | .65933 | 1.18319 | 1.07569 | 1.07569 | .85010 |
| 6.000 | .00000 | 2644.64435 | 34.64481 | 528.05621 | .99876 | .89145 | .69459 | 1.18702 | 1.07972 | 1.07972 | .93284 |
| 8.000 | .00000 | 2646.62357 | 34.67127 | 528.45953 | 1.00384 | .90518 | .74266 | 1.18916 | 1.09150 | 1.09150 | .92514 |
| 10.000 | .00000 | 2646.80231 | 34.67362 | 528.49525 | 1.00375 | .91331 | .77179 | 1.18623 | 1.09579 | 1.09579 | .95045 |
| 12.000 | .00000 | 2647.36554 | 34.68086 | 528.60566 | 1.00265 | .92387 | .78516 | 1.18131 | 1.09698 | 1.09698 | .96057 |
| 14.000 | .00000 | 2652.42508 | 34.74590 | 529.60644 | .99426 | .92147 | .80050 | 1.15962 | 1.08665 | 1.08665 | .97195 |
| 16.000 | .00000 | 2653.07376 | 34.71894 | 529.73420 | .97418 | .90499 | .79759 | 1.13995 | 1.07075 | 1.07075 | .96336 |
| 18.000 | .00000 | 2650.25250 | 34.71894 | 529.18607 | .96257 | .89332 | .79126 | 1.12517 | 1.05593 | 1.05593 | .95866 |
| 20.000 | .00000 | 2651.57239 | 34.73560 | 529.43987 | .94710 | .87865 | .77957 | 1.10349 | 1.03503 | 1.03503 | .93956 |
| 22.000 | .00000 | 2652.55411 | 34.74832 | 529.63383 | .92974 | .86429 | .76955 | 1.08215 | 1.01570 | 1.01570 | .92107 |
| 24.000 | .00000 | 2651.96234 | 34.74070 | 529.51771 | .90388 | .80801 | .71179 | 1.06215 | .90791 | .90791 | .81037 |
| GRADIENT | | .39504 | .00510 | .07776 | | | | .00378 | | | |

(EETBDS) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0330

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 EDFLAP = -7.170

RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|----------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | 2.00000 | 2623.0827 | 2050.85532 | 567.22935 | .97010 | .97050 | .96923 | 1.17939 | 1.17988 | 1.17851 |
| .000 | .000 | 2.00000 | 2625.49564 | 2058.85480 | 566.64084 | .93308 | .93308 | .93128 | 1.13769 | 1.13759 | 1.13589 |
| 4.000 | .000 | 2.00000 | 2627.76524 | 2060.49959 | 567.27655 | .92722 | .92770 | .92665 | 1.12655 | 1.12913 | 1.12809 |
| 6.000 | .000 | 2.00000 | 2627.00054 | 2059.99554 | 567.00510 | .94944 | .94870 | .94955 | 1.14392 | 1.14397 | 1.14302 |
| 8.000 | .000 | 2.00000 | 2626.97894 | 2060.00323 | 566.97571 | .95670 | .95654 | .95678 | 1.14277 | 1.14260 | 1.14284 |
| 10.000 | .000 | 2.00000 | 2626.30542 | 2059.42654 | 566.87888 | .97307 | .97187 | .97201 | 1.14676 | 1.14556 | 1.14570 |
| 12.000 | .000 | 2.00000 | 2626.31223 | 2059.48074 | 566.83148 | .98265 | .98280 | .98320 | 1.15221 | 1.15237 | 1.15276 |
| 14.000 | .000 | 2.00000 | 2628.93167 | 2061.44455 | 567.54712 | 1.00432 | 1.00543 | 1.00531 | 1.15317 | 1.15428 | 1.15416 |
| 16.000 | .000 | 2.00000 | 2627.44873 | 2060.24384 | 567.20490 | 1.02634 | 1.02634 | 1.02617 | 1.15560 | 1.15575 | 1.15538 |
| 18.000 | .000 | 2.00000 | 2626.31006 | 2059.46307 | 566.84688 | 1.05958 | 1.06103 | 1.05981 | 1.18391 | 1.18445 | 1.18224 |
| 20.000 | .000 | 2.00000 | 2626.65959 | 2059.71997 | 566.93561 | 1.10410 | 1.10628 | 1.10259 | 1.20335 | 1.20263 | 1.20223 |
| 22.000 | .000 | 2.00000 | 2624.28091 | 2057.95145 | 566.33746 | 1.13285 | 1.13664 | 1.12835 | 1.22076 | 1.22455 | 1.21626 |
| 24.000 | .000 | 2.00000 | 2623.73047 | 2057.53900 | 566.19147 | 1.16519 | 1.17416 | 1.15412 | 1.23243 | 1.23941 | 1.21935 |
| GRADIENT | | .00000 | -.07975 | -.09139 | .01165 | -.31072 | -.01072 | -.01054 | -.01269 | -.01269 | -.01261 |

RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|----------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .900 | .000 | 2.00000 | 2112.48575 | 1248.91620 | 853.56955 | .80831 | .80685 | .80844 | 1.04493 | 1.04548 | 1.04505 |
| .000 | .000 | 2.00000 | 2115.92145 | 1251.04158 | 854.87288 | .80386 | .80407 | .80335 | 1.02422 | 1.02442 | 1.02371 |
| 2.000 | .000 | 2.00000 | 2119.15109 | 1252.90967 | 856.24142 | .80575 | .80557 | .80637 | 1.01454 | 1.01435 | 1.01515 |
| 4.000 | .000 | 2.00000 | 2117.58701 | 1251.97867 | 855.60834 | .80342 | .80394 | .80448 | .99855 | .99907 | .99961 |
| 6.000 | .000 | 2.00000 | 2114.79404 | 1250.37154 | 854.42252 | .80576 | .80507 | .80611 | .98965 | .99017 | .99021 |
| 8.000 | .000 | 2.00000 | 2119.07845 | 1252.94972 | 856.12875 | .81800 | .81701 | .81701 | .98842 | .98743 | .98743 |
| 10.000 | .000 | 2.00000 | 2115.97958 | 1251.07672 | 854.90286 | .82295 | .82330 | .82385 | .98559 | .98523 | .98559 |
| 12.000 | .000 | 2.00000 | 2114.68259 | 1250.29664 | 854.39597 | .84133 | .84197 | .84167 | .98223 | .98228 | .98223 |
| 14.000 | .000 | 2.00000 | 2116.97549 | 1251.61702 | 855.28848 | .85730 | .86784 | .86446 | .98546 | .98528 | .98459 |
| 16.000 | .000 | 2.00000 | 2117.39859 | 1251.88719 | 855.51141 | .88935 | .89093 | .88922 | 1.00546 | 1.00703 | 1.00532 |
| 18.000 | .000 | 2.00000 | 2115.91061 | 1251.01955 | 854.89105 | .91545 | .91785 | .91517 | 1.01394 | 1.01633 | 1.01565 |
| 20.000 | .000 | 2.00000 | 2110.44638 | 1247.79032 | 852.56608 | .93953 | .94345 | .93790 | 1.02590 | 1.02971 | 1.02417 |
| 22.000 | .000 | 2.00000 | 2109.08810 | 1246.91112 | 852.17700 | .95656 | .97305 | .96043 | 1.03711 | 1.04350 | 1.03028 |
| 24.000 | .000 | 2.00000 | 1.66635 | .99835 | .66797 | -.00064 | -.00082 | -.00052 | -.00760 | -.00778 | -.00748 |
| GRADIENT | | .00000 | 1.66635 | .99835 | .66797 | -.00064 | -.00082 | -.00052 | -.00760 | -.00778 | -.00748 |

TABLATED DATA - 0A161 (ARC 11-97-87-09M)
ARC 11-97-87-09M 0A161 CRIBITER + RAKES

REFERENCE DA.

SREF = 2690.000G SQ.FT. YRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6600 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0380

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALPRON = .000 BOFLAP = -7.170

MACH = 1.200 RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|---------|------------|-----------|------------|---|-------|--------|--------|--------|---------|---------|---------|
| 2.00000 | 2003.55424 | 828.76637 | 1166.48990 | | | .70201 | .70107 | .70071 | .87555 | .87770 | .87735 |
| 2.00000 | 2008.90266 | 828.44971 | 1166.04420 | | | .70560 | .70450 | .70361 | .86526 | .86416 | .86327 |
| 2.00000 | 2009.08081 | 828.45160 | 1166.04684 | | | .70852 | .70809 | .70765 | .85821 | .85778 | .85734 |
| 2.00000 | 2012.49275 | 829.60759 | 1167.67390 | | | .71006 | .70952 | .70871 | .85129 | .85076 | .84994 |
| 2.00000 | 2012.15788 | 829.57092 | 1167.32553 | | | .71253 | .71209 | .71128 | .85488 | .85338 | .85262 |
| 2.00000 | 2011.92180 | 829.36008 | 1167.62230 | | | .72134 | .72049 | .72032 | .87420 | .87420 | .87393 |
| 2.00000 | 2013.54626 | 829.94049 | 1168.14247 | | | .72328 | .72279 | .72232 | .90951 | .90902 | .90854 |
| 2.00000 | 2015.19850 | 830.40101 | 1168.79065 | | | .73198 | .73207 | .73144 | .92506 | .92515 | .92522 |
| 2.00000 | 2013.69295 | 829.94411 | 1168.14755 | | | .74979 | .75009 | .75010 | .92779 | .92809 | .92810 |
| 2.00000 | 2013.23676 | 829.86232 | 1168.03244 | | | .76551 | .76771 | .76713 | .94118 | .94238 | .94180 |
| 2.00000 | 2017.18069 | 830.97342 | 1169.59631 | | | .78558 | .78632 | .78511 | .95609 | .95682 | .95662 |
| 2.00000 | 2019.10837 | 831.89906 | 1170.99917 | | | .80143 | .80341 | .80126 | .96459 | .96667 | .96451 |
| 2.00000 | 2020.01411 | 832.02087 | 1171.07062 | | | .81481 | .81661 | .81432 | .98555 | .98445 | .98555 |
| 2.00000 | -11837 | -107869 | -111077 | | | .00163 | .00176 | .00174 | -.00511 | -.00498 | -.00500 |

MACH = 1.400 RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|---------|------------|-----------|------------|---|-------|--------|--------|--------|---------|---------|---------|
| 2.00000 | 2044.20187 | 642.54803 | 1316.73216 | | | .69798 | .69038 | .69083 | .92543 | .91784 | .91859 |
| 2.00000 | 2046.48904 | 643.12830 | 1317.92126 | | | .71020 | .70241 | .70548 | .92350 | .91581 | .91669 |
| 2.00000 | 2041.44493 | 641.78355 | 1315.16579 | | | .70988 | .70300 | .70519 | .91676 | .90968 | .91197 |
| 2.00000 | 2044.57449 | 642.62668 | 1316.63333 | | | .71659 | .71078 | .70774 | .91696 | .91115 | .90811 |
| 2.00000 | 2040.79653 | 641.70628 | 1315.00722 | | | .71817 | .71232 | .70946 | .91877 | .91291 | .91025 |
| 2.00000 | 2035.77562 | 640.44118 | 1312.41475 | | | .72419 | .71744 | .71977 | .92427 | .91752 | .91595 |
| 2.00000 | 2036.94429 | 640.72521 | 1312.92680 | | | .72015 | .72412 | .72748 | .92737 | .92134 | .92470 |
| 2.00000 | 2039.66587 | 641.42471 | 1314.43022 | | | .72849 | .72228 | .72597 | .93059 | .92437 | .92736 |
| 2.00000 | 2039.60768 | 641.40276 | 1314.38522 | | | .73976 | .73396 | .73376 | .93790 | .93171 | .93190 |
| 2.00000 | 2039.32877 | 641.26414 | 1314.10118 | | | .75165 | .74582 | .74380 | .94128 | .93525 | .93123 |
| 2.00000 | 2033.81595 | 639.92600 | 1311.35902 | | | .74977 | .74401 | .74222 | .93973 | .93394 | .93215 |
| 2.00000 | 2023.58159 | 637.19749 | 1305.76765 | | | .75246 | .75246 | .75246 | .94109 | .93578 | .93654 |
| 2.00000 | 2021.60355 | 636.67937 | 1304.70592 | | | .76313 | .75930 | .75769 | .94326 | .93443 | .93482 |
| 2.00000 | -168921 | -119109 | -139160 | | | .00298 | .00316 | .00357 | -.00217 | -.00199 | -.00158 |

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TABLATED DATA - 0A16: (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER + RAKES

(EE7886) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.179

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.08

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|-------|----------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.550 | .000 | 2.00000 | 1568.49995 | 397.96504 | 1036.97801 | .72494 | .71496 | .70209 | .94061 | .93063 | .91771 |
| | 2.000 | 2.00000 | 1470.76030 | 398.53608 | 1038.46596 | .72937 | .71856 | .70729 | .93897 | .92618 | .91689 |
| | 4.000 | 2.00000 | 1572.20036 | 398.86619 | 1039.32613 | .73215 | .72104 | .71080 | .93827 | .92716 | .91692 |
| | 6.000 | 2.00000 | 1572.37077 | 398.90357 | 1039.43816 | .73923 | .73035 | .71813 | .94064 | .93175 | .91954 |
| | 8.000 | 2.00000 | 1573.70795 | 399.25253 | 1040.33282 | .74444 | .73693 | .72255 | .94558 | .93808 | .92369 |
| | 10.000 | 2.00000 | 1573.65640 | 399.24512 | 1040.31351 | .74943 | .74374 | .72940 | .94011 | .94011 | .92577 |
| | 12.000 | 2.00000 | 1572.64693 | 399.98661 | 1039.63991 | .75930 | .75307 | .74013 | .94627 | .94005 | .92711 |
| | 14.000 | 2.00000 | 1572.69780 | 399.00035 | 1039.67572 | .76396 | .75707 | .74540 | .94863 | .93697 | .92621 |
| | 16.000 | 2.00000 | 1571.97538 | 398.84843 | 1039.27986 | .76396 | .75638 | .74462 | .94455 | .93822 | .92659 |
| | 18.000 | 2.00000 | 1571.13762 | 399.61422 | 1039.19070 | .76620 | .75770 | .74607 | .94902 | .94362 | .93244 |
| | 20.000 | 2.00000 | 1574.13762 | 399.35440 | 1040.62433 | .76599 | .76059 | .74941 | .94902 | .94263 | .92911 |
| | 22.000 | 2.00000 | 1576.42464 | 399.93516 | 1042.11156 | .77176 | .76650 | .75298 | .94789 | .94263 | .92911 |
| | 24.000 | 2.00000 | 1576.99655 | 400.08383 | 1042.49895 | .77602 | .76842 | .75145 | .94685 | .93925 | .92228 |
| | GRADIENT | .00000 | .92511 | .22529 | .58703 | .00186 | .00152 | .00219 | -.00058 | -.00087 | -.00020 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|-------|----------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.750 | .000 | 2.00000 | 1656.77100 | 311.18817 | 1071.52611 | .73261 | .71448 | .68552 | .94963 | .93150 | .90254 |
| | 2.000 | 2.00000 | 1655.31691 | 310.91837 | 1070.59709 | .73384 | .71973 | .68938 | .94968 | .93566 | .90521 |
| | 4.000 | 2.00000 | 1655.46857 | 310.94656 | 1070.69418 | .73548 | .72027 | .69229 | .94816 | .93395 | .90597 |
| | 6.000 | 2.00000 | 1655.59386 | 310.97010 | 1070.77524 | .74319 | .72820 | .70056 | .95143 | .93844 | .90889 |
| | 8.000 | 2.00000 | 1656.17558 | 311.07782 | 1071.14615 | .74772 | .73249 | .70744 | .95278 | .93761 | .91257 |
| | 10.000 | 2.00000 | 1656.23152 | 311.08852 | 1071.16300 | .74107 | .72482 | .71764 | .95249 | .94071 | .91728 |
| | 12.000 | 2.00000 | 1656.29276 | 311.11320 | 1071.26061 | .75547 | .74716 | .72482 | .95249 | .94071 | .92184 |
| | 14.000 | 2.00000 | 1656.36481 | 311.09945 | 1071.26061 | .75981 | .74716 | .73112 | .95109 | .93843 | .91599 |
| | 16.000 | 2.00000 | 1656.54990 | 310.98056 | 1070.81123 | .76525 | .75190 | .73044 | .95079 | .93744 | .91044 |
| | 18.000 | 2.00000 | 1656.64990 | 311.08919 | 1071.11641 | .76689 | .75089 | .72925 | .95264 | .93744 | .91044 |
| | 20.000 | 2.00000 | 1656.39803 | 311.11927 | 1071.26888 | .77087 | .75637 | .72925 | .95084 | .93635 | .90223 |
| | 22.000 | 2.00000 | 1655.98810 | 311.04332 | 1071.02734 | .77805 | .75914 | .73156 | .94588 | .93497 | .90759 |
| | 24.000 | 2.00000 | 1655.66131 | 310.98100 | 1070.81276 | .77384 | .75538 | .73553 | .93733 | .92867 | .90001 |
| | GRADIENT | .00000 | .32560 | -.06040 | -.28799 | .00072 | .00145 | .00169 | -.00012 | -.00061 | -.00086 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 EDFLAP = -7.170

RMVL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|--------------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|--------|
| .000 | 2.00000 | 1843.98238 | 235.71697 | 1093.83054 | .75373 | .71661 | .71661 | .66787 | .95685 | .91973 | .87099 |
| 2.000 | 2.00000 | 1845.69919 | 235.68356 | 1093.67549 | .75709 | .72446 | .72446 | .67196 | .95895 | .92432 | .87187 |
| 4.000 | 2.00000 | 1844.79626 | 235.56110 | 1093.10722 | .75793 | .72716 | .72716 | .67765 | .95917 | .92834 | .87883 |
| 6.000 | 2.00000 | 1844.06850 | 235.46566 | 1092.66437 | .76305 | .73356 | .73356 | .68893 | .96403 | .93453 | .88990 |
| 8.000 | 2.00000 | 1845.05612 | 235.59471 | 1093.26320 | .77204 | .74580 | .74580 | .69911 | .96879 | .94253 | .89586 |
| 10.000 | 2.00000 | 1845.94762 | 235.71702 | 1093.83681 | .77747 | .75167 | .75167 | .71220 | .97315 | .94735 | .90788 |
| 12.000 | 2.00000 | 1845.63626 | 235.63626 | 1093.45602 | .78256 | .75896 | .75896 | .72283 | .96919 | .94680 | .91186 |
| 14.000 | 2.00000 | 1846.05315 | 235.72144 | 1093.85130 | .78748 | .76508 | .76508 | .73015 | .96754 | .94693 | .91431 |
| 16.000 | 2.00000 | 1846.55709 | 235.79776 | 1094.20544 | .79117 | .77056 | .77056 | .73794 | .96267 | .94057 | .89766 |
| 18.000 | 2.00000 | 1847.25053 | 235.88823 | 1094.62527 | .78911 | .76709 | .76709 | .72563 | .95776 | .93573 | .89314 |
| 20.000 | 2.00000 | 1847.20595 | 235.88139 | 1094.59354 | .79151 | .77081 | .77081 | .72851 | .95446 | .93477 | .89248 |
| 22.000 | 2.00000 | 1846.34912 | 235.77158 | 1094.08394 | .79400 | .77256 | .77256 | .73046 | .94602 | .92458 | .88248 |
| 24.000 | 2.00000 | .29651 | .03897 | .18083 | .00107 | .00264 | .00264 | .00244 | .00058 | .00215 | .00196 |

| MACH = 2.250 | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|--------------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|--------|
| .000 | 2.00000 | 2059.21463 | 178.10006 | 1068.92479 | .76801 | .71785 | .71785 | .63811 | .96944 | .91928 | .83694 |
| 2.000 | 2.00000 | 2059.05692 | 178.08647 | 1068.84325 | .77354 | .72362 | .72362 | .64772 | .97346 | .92354 | .84763 |
| 4.000 | 2.00000 | 2059.36257 | 178.11435 | 1069.01056 | .77940 | .73557 | .73557 | .65811 | .97508 | .93125 | .85379 |
| 6.000 | 2.00000 | 2059.19321 | 178.09838 | 1068.91368 | .78718 | .74746 | .74746 | .67758 | .97872 | .93590 | .86913 |
| 8.000 | 2.00000 | 2059.07996 | 178.08038 | 1068.85469 | .79281 | .75459 | .75459 | .68753 | .98173 | .94316 | .87643 |
| 10.000 | 2.00000 | 2059.48004 | 178.12256 | 1069.05988 | .79917 | .76459 | .76459 | .69753 | .98363 | .94906 | .88122 |
| 12.000 | 2.00000 | 2058.62692 | 178.04952 | 1068.82146 | .80510 | .77057 | .77057 | .71525 | .98629 | .95175 | .88644 |
| 14.000 | 2.00000 | 2059.07443 | 178.08793 | 1068.85205 | .80842 | .77917 | .77917 | .72660 | .98578 | .95653 | .88936 |
| 16.000 | 2.00000 | 2058.61588 | 178.04156 | 1068.81566 | .80744 | .77887 | .77887 | .72522 | .98315 | .95374 | .88315 |
| 18.000 | 2.00000 | 2058.53250 | 178.04136 | 1068.81566 | .80914 | .77727 | .77727 | .72152 | .97986 | .94799 | .88224 |
| 20.000 | 2.00000 | 2058.52417 | 178.04055 | 1068.81566 | .80730 | .77664 | .77664 | .71813 | .97379 | .94313 | .88462 |
| 22.000 | 2.00000 | 2059.59705 | 178.04666 | 1068.60429 | .79684 | .76737 | .76737 | .70955 | .95749 | .92802 | .87028 |
| 24.000 | 2.00000 | 2058.37756 | 178.02781 | 1068.49115 | .78467 | .76467 | .76467 | .72883 | .94326 | .91217 | .86633 |
| GRADIENT | .00000 | .04193 | .00357 | .02144 | .00285 | .00443 | .00443 | .00500 | .00141 | .00299 | .00356 |

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OF POOR QUALITY

TABULATED DATA - OA161 (ARC 11-97-87-09*)
 ARC 11-97-87-09* OA161 ORBITER + RAKES

(EE7806) (02 AUG. 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 ALLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|--------------|----------|---------|------------|----------|-----------|--------|--------|--------|---------|--------|--------|
| | .000 | 2.00000 | 1487.32057 | 86.97802 | 654.60834 | .81185 | .74997 | .64323 | 1.00689 | .94501 | .83827 |
| | 2.000 | 2.00000 | 1487.99101 | 87.01836 | 654.91200 | .81452 | .75541 | .64975 | 1.00784 | .94873 | .84306 |
| | 4.000 | 2.00000 | 1487.96725 | 87.01707 | 654.90282 | .82169 | .76849 | .65467 | 1.01299 | .95979 | .85597 |
| | 6.000 | 2.00000 | 1487.96211 | 87.01669 | 654.89940 | .82941 | .77834 | .66074 | 1.01742 | .96636 | .86875 |
| | 8.000 | 2.00000 | 1487.95708 | 87.01653 | 654.89824 | .83408 | .78593 | .66142 | 1.01946 | .97131 | .87661 |
| | 10.000 | 2.00000 | 1487.91705 | 87.01443 | 654.88243 | .84312 | .79514 | .66228 | 1.02714 | .97916 | .89350 |
| | 12.000 | 2.00000 | 1487.93514 | 87.01538 | 654.88956 | .84556 | .80290 | .66316 | 1.02661 | .98395 | .90620 |
| | 14.000 | 2.00000 | 1487.92639 | 87.01483 | 654.88538 | .84551 | .80752 | .66315 | 1.02315 | .98516 | .91370 |
| | 16.000 | 2.00000 | 1487.94725 | 87.01604 | 654.89454 | .84399 | .80792 | .66358 | 1.01797 | .98189 | .91553 |
| | 18.000 | 2.00000 | 1487.92914 | 87.01502 | 654.88682 | .83990 | .80505 | .66589 | 1.00905 | .97421 | .91505 |
| | 20.000 | 2.00000 | 1487.96275 | 87.01727 | 654.90379 | .83422 | .79927 | .66494 | .99743 | .96247 | .90914 |
| | 22.000 | 2.00000 | 1487.95438 | 87.01694 | 654.90131 | .82948 | .79701 | .66470 | .98679 | .95432 | .90475 |
| | 24.000 | 2.00000 | 1487.98357 | 87.01867 | 654.91432 | .82214 | .79232 | .66183 | .97459 | .94477 | .89428 |
| | GRADIENT | .00000 | .16166 | .00976 | .07349 | .00246 | .00463 | .00536 | .00153 | .00370 | .00442 |

RM/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|--------------|----------|---------|------------|----------|-----------|--------|--------|--------|---------|---------|--------|
| | .000 | 2.00000 | 1939.15904 | 51.12361 | 565.47639 | .87620 | .77612 | .61686 | 1.05980 | .99973 | .84046 |
| | 2.000 | 2.00000 | 1940.13321 | 51.14938 | 565.76151 | .88722 | .79006 | .62726 | 1.06930 | .97214 | .80935 |
| | 4.000 | 2.00000 | 1939.45256 | 51.13434 | 565.59507 | .89559 | .80833 | .64490 | 1.07584 | .96898 | .82515 |
| | 6.000 | 2.00000 | 1939.50688 | 51.13526 | 565.60524 | .89959 | .81933 | .65895 | 1.07902 | .96876 | .84839 |
| | 8.000 | 2.00000 | 1939.67354 | 51.14013 | 565.65913 | .90590 | .83106 | .66552 | 1.08376 | .96893 | .86342 |
| | 10.000 | 2.00000 | 1937.17825 | 51.07750 | 564.96639 | .91284 | .83823 | .67816 | 1.08670 | 1.01409 | .88202 |
| | 12.000 | 2.00000 | 1938.09195 | 51.10284 | 565.24663 | .91950 | .85246 | .68442 | 1.09231 | 1.02578 | .90526 |
| | 14.000 | 2.00000 | 1937.60146 | 51.08700 | 565.07146 | .91950 | .85796 | .68442 | 1.08710 | 1.02793 | .91581 |
| | 16.000 | 2.00000 | 1939.26842 | 51.13221 | 565.57153 | .90970 | .85423 | .68442 | 1.07500 | 1.01953 | .91997 |
| | 18.000 | 2.00000 | 1938.53479 | 51.11276 | 565.35637 | .90233 | .84814 | .68442 | 1.06442 | 1.01022 | .91907 |
| | 20.000 | 2.00000 | 1938.72614 | 51.12192 | 565.45771 | .89540 | .84192 | .68183 | 1.05264 | .99916 | .91907 |
| | 22.000 | 2.00000 | 1938.94917 | 51.12888 | 565.53468 | .88216 | .83052 | .68331 | 1.04385 | .98331 | .90922 |
| | 24.000 | 2.00000 | 1938.90468 | 51.12836 | 565.52891 | .86540 | .81562 | .68167 | 1.01363 | .96369 | .89480 |
| | GRADIENT | .00000 | .07340 | .00268 | .02967 | .00485 | .00805 | .00701 | .00401 | .00721 | .00617 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

(EE7B06) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALFLON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2590.0000 SQ.FT. XMRP = 1076.6900 IN. XO
LPEF = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RV/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | COMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|-------|----------|---------|------------|----------|-----------|--------|--------|--------|---------|---------|---------|
| 3.500 | .000 | 2.00000 | 2667.80812 | 34.95021 | 532.71109 | .89341 | .76171 | .56188 | 1.06936 | .93765 | .033/OC |
| | 2.000 | 2.00000 | 2667.98584 | 34.95142 | 532.73055 | .90984 | .78981 | .57954 | 1.08485 | .96083 | .73782 |
| | 4.000 | 2.00000 | 2667.95573 | 34.94600 | 532.64699 | .91874 | .80780 | .59926 | 1.09231 | .98138 | .75455 |
| | 6.000 | 2.00000 | 2668.65705 | 34.96039 | 532.86530 | .92347 | .81703 | .62498 | 1.09672 | .99029 | .76824 |
| | 8.000 | 2.00000 | 2668.83286 | 34.96260 | 532.89992 | .93397 | .83381 | .64950 | 1.10478 | 1.00472 | .85311 |
| | 10.000 | 2.00000 | 2667.49528 | 34.94465 | 532.62630 | .93750 | .84039 | .67602 | 1.10638 | 1.00927 | .84490 |
| | 12.000 | 2.00000 | 2669.69775 | 34.97392 | 533.07244 | .94000 | .85603 | .70598 | 1.10536 | 1.02140 | .87098 |
| | 14.000 | 2.00000 | 2668.85501 | 34.96312 | 532.90790 | .93361 | .85949 | .71794 | 1.09613 | 1.02201 | .88045 |
| | 16.000 | 2.00000 | 2669.65961 | 34.97344 | 533.06512 | .92843 | .85605 | .73178 | 1.08618 | 1.01410 | .89983 |
| | 18.000 | 2.00000 | 2668.67300 | 34.96078 | 532.87227 | .91445 | .84467 | .73675 | 1.06943 | .99967 | .89175 |
| | 20.000 | 2.00000 | 2670.18805 | 34.98034 | 533.17038 | .89734 | .83082 | .73111 | 1.04749 | .98097 | .89125 |
| | 22.000 | 2.00000 | 2668.19308 | 34.95369 | 532.76417 | .88098 | .81624 | .72303 | 1.02693 | .96219 | .86898 |
| | 24.000 | 2.00000 | 2670.01163 | 34.97799 | 533.13458 | .86294 | .79603 | .70691 | 1.00517 | .93826 | .84313 |
| | GRADIENT | .00000 | -.08307 | -.00105 | -.01683 | .00633 | .01152 | .00935 | .00574 | .01093 | .00875 |

(EE7807) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09H)

ARC 11-97-87-09H 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0390

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 AIRLON = .300 BDFLAP = -7.170

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|----------|--------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | 5.0000 | 5.0000 | 2624.0095 | 2057.68289 | 566.31255 | 1.04524 | 1.04578 | 1.04565 | 1.21344 | 1.21399 | 1.21325 |
| .800 | 5.0000 | 5.0000 | 2623.93231 | 2057.61972 | 566.31255 | 1.02692 | 1.02613 | 1.02730 | 1.19343 | 1.19263 | 1.19580 |
| 1.000 | 5.0000 | 5.0000 | 2624.85635 | 2058.36877 | 566.48758 | 1.02142 | 1.02180 | 1.02167 | 1.17939 | 1.17977 | 1.17954 |
| 1.200 | 5.0000 | 5.0000 | 2627.65573 | 2060.37476 | 567.28098 | 1.03104 | 1.03093 | 1.03258 | 1.18632 | 1.18621 | 1.18766 |
| 1.400 | 5.0000 | 5.0000 | 2625.01135 | 2058.40189 | 566.60947 | 1.02974 | 1.03013 | 1.02945 | 1.18120 | 1.18158 | 1.18090 |
| 1.600 | 5.0000 | 5.0000 | 2625.86358 | 2059.00568 | 566.86900 | 1.04485 | 1.04735 | 1.04668 | 1.18177 | 1.18226 | 1.18359 |
| 1.800 | 5.0000 | 5.0000 | 2624.17407 | 2057.86670 | 566.30737 | 1.05775 | 1.05678 | 1.05501 | 1.19184 | 1.19087 | 1.18910 |
| 2.000 | 5.0000 | 5.0000 | 2624.35369 | 2058.02087 | 566.33981 | 1.08364 | 1.08229 | 1.07989 | 1.21255 | 1.21120 | 1.20879 |
| 2.200 | 5.0000 | 5.0000 | 2624.72836 | 2058.21182 | 565.51654 | 1.10791 | 1.10911 | 1.10734 | 1.22310 | 1.22310 | 1.22333 |
| 2.400 | 5.0000 | 5.0000 | 2627.18732 | 2059.98523 | 567.20209 | 1.14232 | 1.14419 | 1.14207 | 1.23592 | 1.23779 | 1.23955 |
| 2.600 | 5.0000 | 5.0000 | 2627.48154 | 2060.22818 | 567.25336 | 1.19153 | 1.19341 | 1.18910 | 1.26322 | 1.26510 | 1.26079 |
| 2.800 | 5.0000 | 5.0000 | 2625.04254 | 2058.51157 | 566.53098 | 1.22590 | 1.23034 | 1.21653 | 1.28424 | 1.28867 | 1.27487 |
| 3.000 | 5.0000 | 5.0000 | 2625.90552 | 2059.18518 | 566.72034 | 1.25000 | 1.26057 | 1.23436 | 1.29248 | 1.30305 | 1.27685 |
| GRADIENT | .00000 | .00000 | .21387 | .17145 | .04238 | -.00596 | -.00600 | -.00585 | -.00851 | -.00858 | -.00840 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|----------|--------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .900 | 5.0000 | 5.0000 | 2111.48715 | 1248.50783 | 862.97934 | .89063 | .89129 | .87991 | 1.07807 | 1.07873 | 1.07735 |
| 1.100 | 5.0000 | 5.0000 | 2115.43283 | 1250.78174 | 864.65109 | .87751 | .87843 | .87798 | 1.06227 | 1.06318 | 1.06273 |
| 1.300 | 5.0000 | 5.0000 | 2117.10138 | 1251.73029 | 865.37109 | .87334 | .87377 | .87397 | 1.04550 | 1.04593 | 1.04613 |
| 1.500 | 5.0000 | 5.0000 | 2114.79214 | 1250.37328 | 864.41888 | .87013 | .87155 | .87173 | 1.03270 | 1.03412 | 1.03430 |
| 1.700 | 5.0000 | 5.0000 | 2109.96957 | 1247.40634 | 862.56323 | .87568 | .87688 | .87697 | 1.02388 | 1.02508 | 1.02517 |
| 1.900 | 5.0000 | 5.0000 | 2116.56933 | 1251.47731 | 865.09103 | .89129 | .89103 | .89030 | 1.02358 | 1.02333 | 1.02250 |
| 2.100 | 5.0000 | 5.0000 | 2116.71035 | 1251.56195 | 865.14841 | .89614 | .89626 | .89609 | 1.02311 | 1.02324 | 1.02337 |
| 2.300 | 5.0000 | 5.0000 | 2112.28323 | 1248.93517 | 863.37808 | .91290 | .91380 | .91347 | 1.02821 | 1.02812 | 1.02878 |
| 2.500 | 5.0000 | 5.0000 | 2114.90735 | 1250.43449 | 864.47287 | .93612 | .93577 | .93587 | 1.03374 | 1.03439 | 1.03549 |
| 2.700 | 5.0000 | 5.0000 | 2115.76746 | 1250.94667 | 864.82080 | .95795 | .95824 | .95749 | 1.04137 | 1.04166 | 1.04091 |
| 2.900 | 5.0000 | 5.0000 | 2108.11169 | 1246.37889 | 861.73282 | .98648 | .98630 | .98569 | 1.05578 | 1.05761 | 1.05501 |
| 3.100 | 5.0000 | 5.0000 | 2109.97089 | 1247.37915 | 862.59174 | 1.01783 | 1.02220 | 1.01579 | 1.07378 | 1.07815 | 1.07175 |
| 3.300 | 5.0000 | 5.0000 | 2116.70166 | 1251.42284 | 865.27884 | 1.04712 | 1.05445 | 1.04177 | 1.09002 | 1.09735 | 1.09468 |
| GRADIENT | .00000 | .00000 | .140354 | .80562 | .59794 | -.00182 | -.00188 | -.00148 | -.00814 | -.00820 | -.00786 |

TABLULATED DATA - 0A161 (ARC 11-97-87-09A)

ARC 11-97-87-09A 0A161 ORBITER + RAKES

(EE78077) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 %Q.FT. XMRP = 1076.6600 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.200 | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|--------------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| ALPHA | 5.00000 | 2011.53369 | 829.44221 | 1167.44115 | .75329 | .75284 | .75170 | .90214 | .90169 | .90340 |
| .000 | 5.00000 | 2009.60794 | 828.83453 | 1166.58583 | .75987 | .75987 | .75868 | .88610 | .88629 | .88610 |
| 2.000 | 5.00000 | 2010.79175 | 829.08212 | 1166.93431 | .76406 | .76293 | .76224 | .88277 | .88165 | .88095 |
| 4.000 | 5.00000 | 2013.55270 | 830.00262 | 1168.22992 | .76580 | .76555 | .76437 | .87843 | .87725 | .87725 |
| 6.000 | 5.00000 | 2013.06412 | 829.84943 | 1168.01431 | .76958 | .76938 | .76824 | .88345 | .88326 | .88212 |
| 8.000 | 5.00000 | 2013.08351 | 829.88634 | 1168.06627 | .77879 | .77872 | .77791 | .91837 | .91749 | .91749 |
| 10.000 | 5.00000 | 2013.92958 | 830.14828 | 1168.43494 | .77702 | .77702 | .77689 | .95238 | .95244 | .95231 |
| 12.000 | 5.00000 | 2014.49097 | 830.35471 | 1168.72548 | .78269 | .78290 | .78429 | .95873 | .95894 | .95833 |
| 14.000 | 5.00000 | 2014.72244 | 830.37983 | 1168.76085 | .80389 | .80465 | .80619 | .96394 | .96470 | .96524 |
| 16.000 | 5.00000 | 2016.26015 | 830.79547 | 1169.34586 | .82244 | .82383 | .82480 | .97730 | .97869 | .97956 |
| 18.000 | 5.00000 | 2018.26015 | 831.44070 | 1170.25401 | .83967 | .84126 | .84221 | .98999 | .99158 | .99253 |
| 20.000 | 5.00000 | 2018.08566 | 830.88952 | 1169.47824 | .85338 | .85548 | .85648 | 1.00110 | 1.00319 | 1.00420 |
| 22.000 | 5.00000 | 2016.50551 | 831.41154 | 1170.21298 | .86335 | .86790 | .86934 | 1.01918 | 1.02373 | 1.02518 |
| 24.000 | 5.00000 | 2018.10237 | 831.41154 | 1170.21298 | .86335 | .86790 | .86934 | 1.01918 | 1.02373 | 1.02518 |
| GRADIENT | .00000 | -1.18549 | -.09002 | -.12671 | .00269 | .00252 | .00264 | -.00484 | -.00501 | -.00490 |

| MACH = 1.400 | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 033/OC |
|--------------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| ALPHA | 5.00000 | 2051.64871 | 644.49467 | 1320.72128 | .74032 | .73207 | .73544 | .94987 | .94101 | .93438 |
| .000 | 5.00000 | 2052.59506 | 644.77777 | 1321.30142 | .74635 | .73869 | .74317 | .94203 | .93437 | .93884 |
| 2.000 | 5.00000 | 2045.37286 | 642.84837 | 1317.34763 | .75052 | .74340 | .74787 | .94090 | .93377 | .93825 |
| 4.000 | 5.00000 | 2043.72565 | 642.43147 | 1316.49332 | .75420 | .74843 | .74764 | .94122 | .93545 | .93465 |
| 6.000 | 5.00000 | 2038.74538 | 641.18506 | 1313.94118 | .75603 | .74950 | .74887 | .94315 | .93662 | .93599 |
| 8.000 | 5.00000 | 2037.38092 | 640.82363 | 1313.19347 | .76220 | .75576 | .75640 | .94621 | .93977 | .94042 |
| 10.000 | 5.00000 | 2038.57906 | 641.10638 | 1313.77788 | .76184 | .75457 | .75911 | .95085 | .94357 | .94612 |
| 12.000 | 5.00000 | 2044.59329 | 642.68520 | 1317.01324 | .76997 | .75952 | .76184 | .95825 | .95180 | .95386 |
| 14.000 | 5.00000 | 2042.24944 | 642.08685 | 1315.78711 | .76139 | .76200 | .77511 | .96237 | .95718 | .95699 |
| 16.000 | 5.00000 | 2029.50903 | 638.78059 | 1309.01199 | .78802 | .78206 | .78298 | .96345 | .95748 | .95633 |
| 18.000 | 5.00000 | 2032.02077 | 639.50005 | 1310.48611 | .79032 | .78468 | .78447 | .96908 | .96344 | .96323 |
| 20.000 | 5.00000 | 2035.48625 | 640.41441 | 1312.35988 | .79958 | .79491 | .79207 | .97286 | .96819 | .96635 |
| 22.000 | 5.00000 | 2035.48625 | 636.51413 | 1304.36728 | .80049 | .79582 | .78913 | .96569 | .96102 | .95433 |
| 24.000 | 5.00000 | 2020.62016 | 636.51413 | 1304.36728 | .80049 | .79582 | .78913 | .96569 | .96102 | .95433 |
| GRADIENT | .00000 | -1.56897 | -.41158 | -.84341 | .00255 | .00283 | .00311 | -.00209 | -.00181 | -.00153 |

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OF POOR QUALITY

TABULATED DATA - 0A161 (ARC 11-97-87-09%)

ARC 11-97-87-09% 0A161 ORBITER + RMKES

(EE7807) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.370

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

MACH = 1.550 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|------|----------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| | .000 | 5.00000 | 1561.82259 | 396.38618 | 1032.75972 | 74340 | 73569 | 72694 | 94969 | 94183 | 93340C |
| | 2.000 | 5.00000 | 1563.04628 | 396.65676 | 1033.56903 | 74553 | 73669 | 72917 | 94709 | 93925 | 92973 |
| | 4.000 | 5.00000 | 1563.16922 | 396.66547 | 1033.50178 | 74344 | 73368 | 73226 | 94741 | 93717 | 92599 |
| | 6.000 | 5.00000 | 1563.46620 | 396.74025 | 1033.78556 | 74668 | 74668 | 73877 | 94590 | 93779 | 92788 |
| | 8.000 | 5.00000 | 1567.33949 | 397.71354 | 1036.32269 | 76426 | 75863 | 74660 | 95031 | 94468 | 93265 |
| | 10.000 | 5.00000 | 1572.23886 | 398.95424 | 1039.55556 | 76802 | 76308 | 75194 | 94968 | 94968 | 93952 |
| | 12.000 | 5.00000 | 1570.17735 | 398.42982 | 1038.18909 | 77155 | 76447 | 75752 | 94674 | 94674 | 93979 |
| | 14.000 | 5.00000 | 1568.15364 | 397.92425 | 1036.87173 | 77088 | 76030 | 75752 | 95002 | 95002 | 92596 |
| | 16.000 | 5.00000 | 1568.63318 | 398.03831 | 1037.16933 | 77279 | 76409 | 75452 | 95158 | 94288 | 93331 |
| | 18.000 | 5.00000 | 1568.80666 | 398.07167 | 1037.25586 | 78345 | 77427 | 76414 | 95610 | 94692 | 93378 |
| | 20.000 | 5.00000 | 1568.97487 | 398.12064 | 1037.38345 | 78375 | 78406 | 76452 | 95557 | 94689 | 92936 |
| | 22.000 | 5.00000 | 1571.11673 | 398.66999 | 1038.91490 | 78702 | 78484 | 76795 | 94485 | 94187 | 92459 |
| | 24.000 | 5.00000 | 1571.43958 | 398.73846 | 1038.99360 | 77968 | 77729 | 76235 | 94142 | 93902 | 92499 |
| | GRADIENT | .00000 | .33655 | .07533 | .20800 | .00257 | .00196 | .00235 | .00056 | .00117 | .00076 |

MACH = 1.750 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|------|----------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| | .000 | 5.00000 | 1655.65965 | 310.98268 | 1070.81854 | 73276 | 71514 | 69113 | 93658 | 92693 | 93340C |
| | 2.000 | 5.00000 | 1655.87311 | 311.02239 | 1070.95529 | 73310 | 71840 | 69311 | 93568 | 92698 | 89592 |
| | 4.000 | 5.00000 | 1655.81648 | 311.01186 | 1070.91904 | 74399 | 72713 | 70383 | 93947 | 92661 | 89569 |
| | 6.000 | 5.00000 | 1656.53960 | 311.14603 | 1071.38103 | 74862 | 73604 | 71427 | 93987 | 92728 | 90451 |
| | 8.000 | 5.00000 | 1655.73843 | 310.99725 | 1070.86871 | 75564 | 74290 | 71840 | 94360 | 93086 | 90636 |
| | 10.000 | 5.00000 | 1655.74200 | 310.99860 | 1070.87534 | 75566 | 74343 | 72425 | 94253 | 93030 | 91112 |
| | 12.000 | 5.00000 | 1654.84193 | 310.82005 | 1070.25854 | 76317 | 74887 | 73392 | 94498 | 93087 | 91573 |
| | 14.000 | 5.00000 | 1655.26360 | 311.09286 | 1071.19794 | 76487 | 74776 | 72171 | 94363 | 92993 | 89987 |
| | 16.000 | 5.00000 | 1655.03967 | 311.05466 | 1071.06638 | 76534 | 75067 | 72203 | 94220 | 92752 | 89898 |
| | 18.000 | 5.00000 | 1655.02122 | 310.85534 | 1071.38005 | 77413 | 75833 | 73221 | 94602 | 95019 | 90410 |
| | 20.000 | 5.00000 | 1654.73904 | 310.79940 | 1070.18747 | 77833 | 76223 | 73420 | 94367 | 92757 | 89953 |
| | 22.000 | 5.00000 | 1655.71509 | 310.98600 | 1070.62997 | 77701 | 76041 | 73155 | 93562 | 91901 | 89016 |
| | 24.000 | 5.00000 | 1656.66179 | 311.16761 | 1071.45531 | 76930 | 75265 | 72599 | 92338 | 90877 | 88207 |
| | GRADIENT | .00000 | .03946 | .00730 | .02312 | .00280 | .00300 | .00318 | .00022 | .00042 | .00060 |

(EE7807) (02 AUG 75)

TABULATED DATA - OAI61 (ARC 11-97-87-084)
ARC 11-97-87-084 OAI61 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALTRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 053/OC |
|--------|--------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 2.000 | .000 | 5.00000 | 1854.93884 | 234.25388 | 1087.03931 | .73612 | .70508 | .68454 | .92394 | .82290 | .85236 |
| 2.000 | 2.000 | 5.00000 | 1830.93913 | 233.75630 | 1084.73218 | .74398 | .71508 | .67176 | .92995 | .90102 | .85770 |
| 4.000 | 4.000 | 5.00000 | 1831.46227 | 233.83033 | 1085.07568 | .74958 | .72555 | .68122 | .93013 | .90610 | .85177 |
| 6.000 | 6.000 | 5.00000 | 1831.73677 | 233.86808 | 1085.25089 | .76095 | .73338 | .68855 | .93684 | .90927 | .86443 |
| 8.000 | 8.000 | 5.00000 | 1834.07581 | 234.17492 | 1086.67477 | .76992 | .74414 | .70128 | .94360 | .91782 | .87497 |
| 10.000 | 10.000 | 5.00000 | 1836.11595 | 234.42052 | 1087.81444 | .77123 | .74870 | .70926 | .94051 | .91838 | .87894 |
| 12.000 | 12.000 | 5.00000 | 1836.10439 | 234.41899 | 1087.80734 | .78353 | .75208 | .71630 | .94716 | .91845 | .88436 |
| 14.000 | 14.000 | 5.00000 | 1841.36952 | 235.10691 | 1090.93960 | .78511 | .75805 | .71859 | .94754 | .91994 | .87919 |
| 16.000 | 16.000 | 5.00000 | 1849.86311 | 236.19734 | 1095.05959 | .78419 | .76096 | .71156 | .94246 | .91923 | .87254 |
| 18.000 | 18.000 | 5.00000 | 1849.99158 | 236.21837 | 1096.15729 | .78684 | .76475 | .72008 | .93664 | .91475 | .87008 |
| 20.000 | 20.000 | 5.00000 | 1845.65546 | 235.66004 | 1093.56638 | .78749 | .76435 | .72078 | .93478 | .91164 | .86807 |
| 22.000 | 22.000 | 5.00000 | 1847.52986 | 235.89360 | 1094.65019 | .78090 | .75499 | .71427 | .92786 | .90195 | .86123 |
| 24.000 | 24.000 | 5.00000 | 1848.52892 | 236.04575 | 1095.35625 | .00336 | .00512 | .00417 | .00155 | .00330 | .00235 |
| | | .00000 | -.86914 | -.10579 | -.49691 | | | | | | |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 011/OC | 021/OC | 031/OC | 013/OC | 023/OC | 053/OC |
|--------|--------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 2.250 | .000 | 5.00000 | 2059.36877 | 178.11419 | 1069.00958 | .75777 | .70655 | .64253 | .93348 | .86226 | .81824 |
| 2.000 | 2.000 | 5.00000 | 2058.48529 | 178.03863 | 1068.55612 | .76697 | .71776 | .65884 | .93860 | .86939 | .82247 |
| 4.000 | 4.000 | 5.00000 | 2059.33249 | 178.11115 | 1068.99139 | .77444 | .72675 | .66874 | .94398 | .86800 | .82800 |
| 6.000 | 6.000 | 5.00000 | 2059.45581 | 178.12163 | 1069.05426 | .77791 | .73577 | .66768 | .94610 | .90396 | .83598 |
| 8.000 | 8.000 | 5.00000 | 2058.44626 | 178.03483 | 1068.53333 | .78685 | .74499 | .68045 | .95248 | .91062 | .84508 |
| 10.000 | 10.000 | 5.00000 | 2059.21469 | 178.10055 | 1068.92778 | .79381 | .75598 | .67970 | .95785 | .92002 | .86197 |
| 12.000 | 12.000 | 5.00000 | 2058.72452 | 178.05897 | 1069.67753 | .79806 | .76160 | .70425 | .96150 | .92504 | .86779 |
| 14.000 | 14.000 | 5.00000 | 2059.35339 | 178.02506 | 1068.47465 | .80019 | .76024 | .70581 | .96365 | .92390 | .86548 |
| 16.000 | 16.000 | 5.00000 | 2059.73508 | 178.14466 | 1069.19247 | .79713 | .76125 | .69398 | .96365 | .91975 | .86247 |
| 18.000 | 18.000 | 5.00000 | 2058.78250 | 178.06276 | 1068.70093 | .79395 | .76250 | .69515 | .94968 | .91813 | .85078 |
| 20.000 | 20.000 | 5.00000 | 2059.63272 | 178.13587 | 1069.13972 | .78018 | .74864 | .68774 | .93690 | .90735 | .84646 |
| 22.000 | 22.000 | 5.00000 | 2058.95166 | 178.07758 | 1068.78992 | .78247 | .74922 | .68769 | .93457 | .90132 | .83970 |
| 24.000 | 24.000 | 5.00000 | 2058.71259 | 178.05695 | 1068.66547 | .75795 | .72750 | .67169 | .90465 | .87421 | .81840 |
| | | .00000 | -.00907 | -.00076 | -.00455 | .00417 | .00505 | .00405 | .00255 | .00344 | .00244 |

(EE7807) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILLON = .000 BDFLAP = -7.170

TABLATED DATA - OA161 (ARC 11-97-87-094)
A/C 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

MACH = 2.500 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|----------|--------|---------|------------|----------|-----------|--------|--------|--------|--------|--------|--------|
| 2.000 | .000 | 5.00000 | 1487.41808 | 86.98371 | 654.65117 | .75790 | .69716 | .61116 | .93143 | .87069 | .78469 |
| 2.000 | 2.000 | 5.00000 | 1487.53204 | 86.99042 | 654.70170 | .76893 | .70809 | .62178 | .94125 | .88041 | .79410 |
| 4.000 | 4.000 | 5.00000 | 1487.58735 | 86.99357 | 654.72614 | .77484 | .71872 | .63255 | .94543 | .88930 | .80313 |
| 6.000 | 6.000 | 5.00000 | 1487.58553 | 86.99354 | 654.72516 | .78385 | .72941 | .64219 | .95107 | .89663 | .80941 |
| 8.000 | 8.000 | 5.00000 | 1487.60651 | 86.99329 | 654.73532 | .79169 | .74137 | .65594 | .95547 | .90547 | .82004 |
| 10.000 | 10.000 | 5.00000 | 1487.63735 | 86.99730 | 654.75346 | .79933 | .75354 | .67418 | .95792 | .91714 | .83777 |
| 12.000 | 12.000 | 5.00000 | 1487.63515 | 86.99718 | 654.75260 | .80323 | .76002 | .68434 | .95475 | .91954 | .84587 |
| 14.000 | 14.000 | 5.00000 | 1487.64052 | 86.99771 | 654.75657 | .81055 | .76384 | .69316 | .95968 | .92297 | .85229 |
| 16.000 | 16.000 | 5.00000 | 1487.63156 | 86.99771 | 654.75660 | .81055 | .76384 | .69316 | .96318 | .92321 | .85268 |
| 18.000 | 18.000 | 5.00000 | 1487.64584 | 86.99899 | 654.76619 | .80607 | .76610 | .69557 | .95272 | .91822 | .85230 |
| 20.000 | 20.000 | 5.00000 | 1487.60817 | 86.99542 | 654.74684 | .79202 | .76445 | .69533 | .94158 | .90555 | .84701 |
| 22.000 | 22.000 | 5.00000 | 1487.61295 | 86.99681 | 654.74979 | .78254 | .75689 | .69107 | .92810 | .88480 | .83664 |
| 24.000 | 24.000 | 5.00000 | 1487.57964 | 86.99521 | 654.73773 | .76585 | .73514 | .68407 | .93975 | .87904 | .82797 |
| GRADIENT | | .00000 | .04233 | .00249 | .01874 | .00424 | .00539 | .00335 | .00350 | .00465 | .00461 |

MACH = 3.000 RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | Q11/OC | Q21/OC | Q31/OC | Q13/OC | Q23/OC | Q33/OC |
|----------|--------|---------|------------|----------|-----------|--------|--------|--------|--------|--------|--------|
| 3.000 | .000 | 5.00000 | 1939.46461 | 51.12282 | 565.46770 | .77493 | .68144 | .56034 | .93344 | .89995 | .71890 |
| 3.000 | 2.000 | 5.00000 | 1937.72949 | 51.07815 | 564.97363 | .78748 | .69463 | .56916 | .94497 | .91268 | .72656 |
| 4.000 | 4.000 | 5.00000 | 1938.05081 | 51.08625 | 565.06321 | .80491 | .71268 | .58514 | .96175 | .93552 | .74199 |
| 6.000 | 6.000 | 5.00000 | 1938.52211 | 51.09901 | 565.20436 | .81251 | .72612 | .59627 | .96780 | .94141 | .75156 |
| 8.000 | 8.000 | 5.00000 | 1938.14912 | 51.09524 | 565.16261 | .82220 | .74504 | .61883 | .97562 | .95846 | .77024 |
| 10.000 | 10.000 | 5.00000 | 1938.11229 | 51.09643 | 565.17573 | .82999 | .75500 | .63399 | .98222 | .96723 | .78223 |
| 12.000 | 12.000 | 5.00000 | 1937.93176 | 51.09222 | 565.12921 | .83624 | .76722 | .65301 | .98666 | .97165 | .80343 |
| 14.000 | 14.000 | 5.00000 | 1938.21223 | 51.10291 | 565.24744 | .84089 | .77567 | .66378 | .98918 | .97595 | .81206 |
| 16.000 | 16.000 | 5.00000 | 1938.64461 | 51.12403 | 565.48102 | .83726 | .77823 | .67188 | .99271 | .97359 | .81732 |
| 18.000 | 18.000 | 5.00000 | 1938.64461 | 51.12403 | 565.48102 | .82547 | .77431 | .67294 | .96844 | .91729 | .81272 |
| 20.000 | 20.000 | 5.00000 | 1938.51358 | 51.11730 | 565.40651 | .81562 | .76431 | .67417 | .95417 | .90393 | .80343 |
| 22.000 | 22.000 | 5.00000 | 1938.60377 | 51.12642 | 565.50747 | .79973 | .75231 | .66384 | .93536 | .88154 | .80343 |
| 24.000 | 24.000 | 5.00000 | 1938.09142 | 51.11131 | 565.34034 | .77916 | .73122 | .65998 | .91329 | .86533 | .79410 |
| GRADIENT | | .00000 | -.35345 | -.00914 | -.10112 | .00749 | .00781 | .00619 | .00709 | .00739 | .00577 |

(EE7807) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-89%)

ARC 11-97-87-89% 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILLON = .000 EDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | QCOMP | 011/0C | 021/0C | 031/0C | 013/0C | 023/0C | 033/0C |
|--------------|---------|------------|----------|-----------|--------|--------|--------|--------|--------|--------|--------|
| .000 | 5.00000 | 2683.02945 | 35.14780 | 535.72286 | .63874 | .75633 | .63874 | .49818 | .90844 | .79085 | .63029 |
| 2.000 | 5.00000 | 2682.78583 | 35.14482 | 535.67735 | .65640 | .77486 | .65640 | .50869 | .92614 | .80758 | .65997 |
| 4.000 | 5.00000 | 2680.95332 | 35.12155 | 535.32255 | .67271 | .79236 | .67271 | .52509 | .94221 | .82255 | .67494 |
| 6.000 | 5.00000 | 2682.66058 | 35.14306 | 535.65053 | .69339 | .80227 | .69339 | .53758 | .95080 | .84192 | .68611 |
| 8.000 | 5.00000 | 2680.65055 | 35.11761 | 535.26256 | .71914 | .81430 | .71914 | .56168 | .96270 | .86753 | .71008 |
| 10.000 | 5.00000 | 2682.31409 | 35.13848 | 535.58065 | .72886 | .82198 | .72886 | .58038 | .96857 | .87545 | .72695 |
| 12.000 | 5.00000 | 2680.79322 | 35.11946 | 535.29087 | .74116 | .82602 | .74116 | .60128 | .96986 | .88508 | .74512 |
| 14.000 | 5.00000 | 2681.94269 | 35.13391 | 535.51109 | .74930 | .82924 | .74930 | .61409 | .97080 | .89087 | .75555 |
| 16.000 | 5.00000 | 2680.82974 | 35.11878 | 535.28040 | .75457 | .82493 | .75457 | .62011 | .96482 | .89366 | .75920 |
| 18.000 | 5.00000 | 2680.17957 | 35.11156 | 535.17036 | .74732 | .80955 | .74732 | .62180 | .94641 | .85418 | .75856 |
| 20.000 | 5.00000 | 2682.18320 | 35.13710 | 535.55972 | .73589 | .79632 | .73589 | .62343 | .93021 | .85978 | .75732 |
| 22.000 | 5.00000 | 2680.60205 | 35.11565 | 535.23274 | .77754 | .77754 | .71525 | .61755 | .90831 | .84603 | .74833 |
| 24.000 | 5.00000 | 2680.41901 | 35.11479 | 535.21957 | .69311 | .75540 | .69311 | .64575 | .88297 | .82067 | .73532 |
| GRADIENT | .00000 | -.51654 | -.00556 | -.10005 | .00901 | .00849 | .00849 | .00673 | .00844 | .00793 | .00616 |

ORIGINAL PAGE IS
OF POOR QUALITY

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YQ
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.200 | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | -5.00000 | 2009.91339 | 628.82202 | 1166.56822 | -.02176 | -.02208 | -.02496 | -.01541 | -.01563 | -.01766 |
| 2.000 | -5.00000 | 2009.58676 | 828.57557 | 1166.22134 | -.01819 | -.02908 | -.02214 | -.01306 | -.01370 | -.01587 |
| 4.000 | -5.00000 | 2012.39209 | 829.41618 | 1167.40450 | -.01690 | -.01747 | -.02066 | -.01237 | -.01278 | -.01510 |
| 6.000 | -5.00000 | 2007.30058 | 828.01813 | 1165.43674 | -.01584 | -.01652 | -.01837 | -.01170 | -.01220 | -.01356 |
| 8.000 | -5.00000 | 2005.18105 | 827.75498 | 1165.08044 | -.01691 | -.01709 | -.02061 | -.01247 | -.01260 | -.01518 |
| 10.000 | -5.00000 | 1999.63934 | 826.38300 | 1163.13228 | -.01616 | -.01668 | -.01990 | -.01191 | -.01230 | -.01465 |
| 12.000 | -5.00000 | 2001.46516 | 826.74883 | 1163.65021 | -.01721 | -.01683 | -.01939 | -.01240 | -.01238 | -.01434 |
| 14.000 | -5.00000 | 2001.00822 | 826.64798 | 1163.50826 | -.01721 | -.01683 | -.01939 | -.01240 | -.01238 | -.01434 |
| 16.000 | -5.00000 | 1999.43824 | 827.20448 | 1164.29153 | -.01736 | -.01814 | -.02044 | -.01277 | -.01334 | -.01577 |
| 18.000 | -5.00000 | 2003.10529 | 827.20448 | 1164.29153 | -.02156 | -.02060 | -.02418 | -.01449 | -.01558 | -.01828 |
| 20.000 | -5.00000 | 2000.66002 | 826.62385 | 1163.47430 | -.02432 | -.02334 | -.02637 | -.01654 | -.01855 | -.02160 |
| 22.000 | -5.00000 | 1996.12405 | 825.65847 | 1162.11552 | -.03009 | -.02574 | -.03397 | -.02001 | -.02637 | -.03071 |
| 24.000 | -5.00000 | 1995.54181 | 825.41643 | 1161.77493 | -.00121 | -.00115 | -.00108 | -.00076 | -.00071 | -.00064 |
| GRADIENT | .00000 | .86957 | .14854 | .20908 | | | | | | |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.550 | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | -5.00000 | 1578.31139 | 400.01855 | 1042.32884 | -.13674 | -.15218 | -.18378 | -.10032 | -.11124 | -.13336 |
| 2.000 | -5.00000 | 1578.99117 | 400.18729 | 1042.76854 | -.13872 | -.15690 | -.17731 | -.10212 | -.11501 | -.12936 |
| 4.000 | -5.00000 | 1577.32025 | 399.78339 | 1041.71767 | -.13320 | -.14382 | -.16977 | -.09661 | -.11160 | -.12464 |
| 6.000 | -5.00000 | 1577.34309 | 399.79176 | 1041.73790 | -.12858 | -.13718 | -.16646 | -.09514 | -.10718 | -.12343 |
| 8.000 | -5.00000 | 1578.35884 | 400.03267 | 1042.36615 | -.12539 | -.13718 | -.16646 | -.09427 | -.10266 | -.12411 |
| 10.000 | -5.00000 | 1575.77239 | 399.39394 | 1040.70126 | -.11999 | -.13194 | -.15835 | -.09369 | -.10113 | -.11779 |
| 12.000 | -5.00000 | 1575.64384 | 399.36791 | 1040.63941 | -.12335 | -.13300 | -.15570 | -.09397 | -.10113 | -.11779 |
| 14.000 | -5.00000 | 1575.95380 | 399.44687 | 1040.63922 | -.12274 | -.13330 | -.15566 | -.09416 | -.10203 | -.11705 |
| 16.000 | -5.00000 | 1575.97449 | 399.45256 | 1040.85405 | -.12419 | -.13241 | -.15300 | -.09563 | -.10409 | -.11700 |
| 18.000 | -5.00000 | 1576.27609 | 399.52647 | 1041.04663 | -.12705 | -.13403 | -.15116 | -.09890 | -.10409 | -.11700 |
| 20.000 | -5.00000 | 1575.81870 | 399.41241 | 1040.74942 | -.13208 | -.13939 | -.15726 | -.10391 | -.10962 | -.12314 |
| 22.000 | -5.00000 | 1575.80844 | 399.41526 | 1040.75685 | -.14082 | -.14787 | -.16485 | -.11205 | -.11752 | -.12799 |
| 24.000 | -5.00000 | 1576.42549 | 399.57412 | 1041.17079 | -.14804 | -.15555 | -.16135 | -.11942 | -.12532 | -.12986 |
| GRADIENT | .00000 | -.24773 | -.05863 | -.15279 | | | | | | |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(EE76037) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 SDFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LPEF = 474.8000 IN. YMRP = .0000 IN. YO
BRF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 5.0% GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | BETA | PT | P | QCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| ALPHA | -5.00000 | 1643.42418 | 309.79275 | 1066.72121 | -27191 | -30028 | -36811 | -19887 | -21843 | -26401 |
| .000 | -5.00000 | 1650.93587 | 310.08349 | 1067.72229 | -30031 | -30031 | -37398 | -19520 | -21919 | -26885 |
| 2.000 | -5.00000 | 1650.93587 | 310.08349 | 1067.72229 | -26550 | -29335 | -35332 | -19304 | -21801 | -26324 |
| 4.000 | -5.00000 | 1649.94432 | 309.94633 | 1067.25003 | -26992 | -26528 | -34848 | -19386 | -21166 | -25532 |
| 6.000 | -5.00000 | 1649.94432 | 309.94633 | 1067.06963 | -25996 | -25388 | -32665 | -19000 | -20331 | -24094 |
| 8.000 | -5.00000 | 1650.82304 | 310.06269 | 1067.65071 | -25388 | -25388 | -32665 | -19000 | -20331 | -24094 |
| 10.000 | -5.00000 | 1650.44762 | 309.98747 | 1067.39171 | -24936 | -26559 | -31409 | -18776 | -19933 | -23351 |
| 12.000 | -5.00000 | 1651.41377 | 310.17471 | 1068.03942 | -24896 | -26553 | -30563 | -18901 | -19958 | -23032 |
| 14.000 | -5.00000 | 1651.02856 | 310.17471 | 1068.03942 | -26271 | -26553 | -30563 | -18901 | -19958 | -23032 |
| 16.000 | -5.00000 | 1651.02856 | 310.09678 | 1067.19304 | -24739 | -26204 | -30224 | -19063 | -20137 | -22543 |
| 18.000 | -5.00000 | 1650.84254 | 309.92978 | 1067.65240 | -24951 | -26528 | -29286 | -19440 | -20603 | -22635 |
| 20.000 | -5.00000 | 1651.38724 | 310.16493 | 1068.00276 | -24920 | -26509 | -29486 | -19707 | -20907 | -23140 |
| 22.000 | -5.00000 | 1651.57825 | 310.20011 | 1068.12369 | -25272 | -26965 | -30537 | -20131 | -21345 | -24119 |
| 24.000 | -5.00000 | 1651.58163 | 310.20077 | 1068.12617 | -26020 | -27739 | -31915 | -20972 | -22276 | -25417 |
| GRADIENT | .00000 | .20419 | .03940 | .13221 | .00275 | .00158 | .06120 | .00148 | .00650 | .00019 |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | QCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| ALPHA | -5.00000 | 1847.06216 | 235.97826 | 1095.04305 | -47191 | -52378 | -65220 | -35617 | -39193 | -47789 |
| .000 | -5.00000 | 1848.00623 | 236.10478 | 1095.63014 | -46308 | -51694 | -67135 | -35297 | -39060 | -49496 |
| 2.000 | -5.00000 | 1847.42177 | 236.02850 | 1095.27618 | -46180 | -51091 | -66340 | -35213 | -38649 | -48981 |
| 4.000 | -5.00000 | 1846.95721 | 235.96262 | 1094.97044 | -45846 | -49384 | -59795 | -35366 | -37278 | -44728 |
| 6.000 | -5.00000 | 1846.95721 | 235.96262 | 1094.97044 | -45311 | -48705 | -57853 | -34806 | -37212 | -43535 |
| 8.000 | -5.00000 | 1845.85446 | 235.95757 | 1094.99344 | -45311 | -48705 | -56425 | -34806 | -37159 | -42632 |
| 10.000 | -5.00000 | 1846.51515 | 235.89915 | 1094.67596 | -44399 | -47282 | -54221 | -34602 | -36825 | -41642 |
| 12.000 | -5.00000 | 1846.51515 | 235.90250 | 1094.69148 | -43799 | -47074 | -52323 | -34696 | -37115 | -40944 |
| 14.000 | -5.00000 | 1846.62762 | 235.91658 | 1094.75682 | -44153 | -47282 | -52323 | -35125 | -37420 | -40944 |
| 16.000 | -5.00000 | 1846.92321 | 235.83774 | 1094.39096 | -44153 | -47282 | -52323 | -35125 | -37420 | -40944 |
| 18.000 | -5.00000 | 1846.85618 | 235.87904 | 1094.58261 | -45340 | -48352 | -52490 | -36039 | -38101 | -41251 |
| 20.000 | -5.00000 | 1846.85618 | 235.94551 | 1094.89108 | -45477 | -48352 | -52490 | -36039 | -38101 | -41251 |
| 22.000 | -5.00000 | 1847.20576 | 235.98682 | 1095.09203 | -45137 | -48352 | -53362 | -36254 | -39165 | -42998 |
| 24.000 | -5.00000 | 1846.00110 | 235.93439 | 1094.37541 | -49151 | -49151 | -54743 | -37478 | -39165 | -44698 |
| GRADIENT | .00000 | .08390 | .01256 | .05929 | .00253 | .00322 | .00280 | .00101 | .00136 | .00299 |

(EE7C03) 1 02 AUG 75)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A1LRON = .000 BOFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2590.0000 SC.FT. XMPP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMPP = .0000 IN. YO
BREF = 935.6800 IN. ZMPP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|-------|----------|------------|-----------|------------|--------|--------|----------|--------|--------|--------|
| 2.500 | .000 | -5.00000 | 2051.52133 | 177.43511 | 1064.93391 | -72915 | -80927 | -1.03475 | -55733 | -62326 | -77473 |
| 2.000 | .000 | -5.00000 | 2050.73444 | 177.35765 | 1064.52908 | -72330 | -80022 | -1.03843 | -55155 | -61638 | -77527 |
| 4.000 | .000 | -5.00000 | 2050.90634 | 177.38244 | 1064.61781 | -72302 | -79260 | -1.01701 | -55340 | -61216 | -76372 |
| 6.000 | .000 | -5.00000 | 2050.73329 | 177.36738 | 1064.52737 | -70994 | -76420 | -93669 | -55725 | -59577 | -71498 |
| 8.000 | .000 | -5.00000 | 2051.17938 | 177.40587 | 1064.75842 | -69584 | -75124 | -85442 | -55165 | -55299 | -69157 |
| 10.000 | .000 | -5.00000 | 2051.78479 | 177.45775 | 1065.06981 | -69741 | -74725 | -87865 | -55297 | -59217 | -68574 |
| 12.000 | .000 | -5.00000 | 2052.43539 | 177.51383 | 1065.40637 | -69521 | -75000 | -85641 | -55471 | -58261 | -67704 |
| 14.000 | .000 | -5.00000 | 2054.13220 | 177.65454 | 1066.25092 | -70489 | -75263 | -84422 | -55501 | -59594 | -66590 |
| 16.000 | .000 | -5.00000 | 2055.24664 | 177.75452 | 1066.85094 | -69843 | -74991 | -84648 | -55379 | -60176 | -67201 |
| 18.000 | .000 | -5.00000 | 2055.90338 | 177.81194 | 1067.19557 | -70012 | -75658 | -83971 | -55775 | -61193 | -67201 |
| 20.000 | .000 | -5.00000 | 2055.49188 | 177.77633 | 1066.98166 | -70251 | -75757 | -82371 | -55651 | -61821 | -67201 |
| 22.000 | .000 | -5.00000 | 2055.36655 | 177.76571 | 1066.91809 | -70350 | -76754 | -83205 | -55552 | -63107 | -69466 |
| 24.000 | .000 | -5.00000 | 2056.58188 | 177.85959 | 1067.54214 | -69834 | -75321 | -85702 | -55423 | -62582 | -72619 |
| GRADIENT | | .00000 | -1.15373 | -0.01317 | -0.07902 | .00153 | .00417 | .00443 | .00098 | .00278 | .00275 |

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|-------|----------|------------|----------|-----------|----------|-----------|-----------|--------|--------|----------|
| 2.500 | .000 | -5.00000 | 1498.56390 | 87.64465 | 659.62552 | -1.00763 | -1.08072 | -1.39324 | -79569 | -84802 | -1.05920 |
| 2.000 | .000 | -5.00000 | 1497.87276 | 87.60370 | 659.31491 | -1.00945 | -1.07632 | -1.38122 | -79729 | -84420 | -1.05009 |
| 4.000 | .000 | -5.00000 | 1497.09436 | 87.55775 | 658.97150 | -1.00095 | -1.05267 | -1.33430 | -79450 | -83559 | -1.02449 |
| 6.000 | .000 | -5.00000 | 1497.75047 | 87.59612 | 659.26024 | -99407 | -1.04571 | -1.29752 | -79973 | -82636 | -99309 |
| 8.000 | .000 | -5.00000 | 1497.84230 | 87.60144 | 659.30032 | -99515 | -1.04625 | -1.25979 | -79521 | -83176 | -98254 |
| 10.000 | .000 | -5.00000 | 1497.81511 | 87.59991 | 659.28880 | -98785 | -1.04485 | -1.24722 | -79293 | -83356 | -97600 |
| 12.000 | .000 | -5.00000 | 1497.81754 | 87.59999 | 659.28856 | -98802 | -1.05467 | -1.21741 | -79731 | -84462 | -96101 |
| 14.000 | .000 | -5.00000 | 1497.78538 | 87.59764 | 659.27169 | -98405 | -1.05547 | -1.19424 | -79550 | -85260 | -95136 |
| 16.000 | .000 | -5.00000 | 1497.77367 | 87.59656 | 659.26350 | -98343 | -1.05149 | -1.19073 | -80303 | -85525 | -95442 |
| 18.000 | .000 | -5.00000 | 1497.77548 | 87.59658 | 659.26370 | -98795 | -1.06699 | -1.15448 | -81223 | -87246 | -95751 |
| 20.000 | .000 | -5.00000 | 1497.79357 | 87.59782 | 659.27309 | -98598 | -1.07215 | -1.15429 | -81511 | -87500 | -96673 |
| 22.000 | .000 | -5.00000 | 1497.81293 | 87.59903 | 659.28218 | -98915 | -1.08236 | -1.120261 | -83135 | -89433 | -98597 |
| 24.000 | .000 | -5.00000 | 1497.82393 | 87.59926 | 659.28399 | -1.01112 | -1.138956 | -1.120659 | -84910 | -90931 | -99733 |
| GRADIENT | | .00000 | -1.02172 | -0.01350 | -0.00167 | .00451 | .00451 | .01473 | .00045 | .00256 | .00863 |

(EE7C03) (02 / 3 75)

TABULATED DATA - 0A161 (ARC 11-97-87-09+)

ARC 11-97-87-09+ 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -5.000 ELEVON = .000
 AILRON = .000 EDFLAP = -7.170

PARAMETRIC DATA

RV/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|----------|----------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| | .000 | -5.00000 | 1935.56339 | 51.10074 | 565.22348 | -1.94318 | -2.05699 | -2.76182 | -1.57657 | -1.65883 | -2.12934 |
| | 2.000 | -5.00000 | 1935.15036 | 51.09178 | 565.12438 | -1.93366 | -2.04017 | -2.69837 | -1.57165 | -1.64725 | -2.05600 |
| | 4.000 | -5.00000 | 1936.07675 | 51.11307 | 565.35988 | -1.92115 | -2.01985 | -2.55442 | -1.56507 | -1.63523 | -2.02037 |
| | 6.000 | -5.00000 | 1936.50783 | 51.12482 | 565.48977 | -1.92272 | -2.01958 | -2.52593 | -1.56709 | -1.63600 | -1.99302 |
| | 8.000 | -5.00000 | 1936.47981 | 51.12357 | 565.47600 | -1.91011 | -2.01418 | -2.43578 | -1.56214 | -1.63659 | -1.92926 |
| | 10.000 | -5.00000 | 1936.30977 | 51.12127 | 565.45056 | -1.89974 | -2.02404 | -2.42230 | -1.56342 | -1.65317 | -1.93184 |
| | 12.000 | -5.00000 | 1936.60462 | 51.11145 | 565.34191 | -1.88368 | -2.03418 | -2.38576 | -1.56775 | -1.66599 | -1.91505 |
| | 14.000 | -5.00000 | 1935.75789 | 51.09733 | 565.18574 | -1.87262 | -2.04036 | -2.34717 | -1.56585 | -1.67864 | -1.89712 |
| | 16.000 | -5.00000 | 1935.34929 | 51.08156 | 565.01133 | -1.86935 | -2.05298 | -2.34023 | -1.56994 | -1.69007 | -1.90226 |
| | 18.000 | -5.00000 | 1935.29300 | 51.07934 | 564.98677 | -1.86593 | -2.06426 | -2.35197 | -1.56574 | -1.70125 | -1.92257 |
| | 20.000 | -5.00000 | 1934.35158 | 51.05967 | 564.96923 | -1.87051 | -2.07834 | -2.36364 | -1.56046 | -1.73012 | -1.94531 |
| | 22.000 | -5.00000 | 1934.81860 | 51.07553 | 564.94459 | -1.88436 | -2.07834 | -2.39230 | -1.60205 | -1.74972 | -1.97433 |
| | 24.000 | -5.00000 | 1934.05580 | 51.04761 | 564.83582 | -1.91422 | -2.10009 | -2.39308 | -1.63486 | -1.77706 | -1.99597 |
| | GRADIENT | .00000 | .12834 | .03308 | .03410 | .00551 | .00928 | .04435 | .00288 | .00540 | .02717 |

RV/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|----------|----------|------------|----------|-----------|----------|----------|----------|----------|----------|-----------|
| | .000 | -5.00000 | 2547.37308 | 33.36888 | 508.60840 | -3.32394 | -3.53519 | -4.91713 | -2.71229 | -2.65897 | -3.75755 |
| | 2.000 | -5.00000 | 2547.81790 | 33.37489 | 508.70000 | -3.29012 | -3.49614 | -4.74049 | -2.67325 | -2.63805 | -3.65763 |
| | 4.000 | -5.00000 | 2546.94196 | 33.36394 | 508.53317 | -3.25690 | -3.46299 | -4.53554 | -2.67316 | -2.61784 | -3.53320 |
| | 6.000 | -5.00000 | 2547.50006 | 33.37128 | 508.64510 | -3.24640 | -3.46596 | -4.40755 | -2.67305 | -2.62537 | -3.45818 |
| | 8.000 | -5.00000 | 2547.17203 | 33.36708 | 508.58098 | -3.23184 | -3.47225 | -4.26844 | -2.66550 | -2.63883 | -3.38893 |
| | 10.000 | -5.00000 | 2551.36157 | 33.42099 | 509.40276 | -3.20237 | -3.48840 | -4.24811 | -2.65350 | -2.65714 | -3.37601 |
| | 12.000 | -5.00000 | 2555.54724 | 33.47640 | 510.24735 | -3.18192 | -3.49245 | -4.14561 | -2.64464 | -2.66883 | -3.31918 |
| | 14.000 | -5.00000 | 2558.82321 | 33.51909 | 510.99791 | -3.15664 | -3.50871 | -4.07511 | -2.64557 | -2.68911 | -3.29567 |
| | 16.000 | -5.00000 | 2563.66443 | 33.56292 | 511.67409 | -3.15916 | -3.51912 | -4.01348 | -2.65907 | -2.83734 | -3.24397 |
| | 18.000 | -5.00000 | 2567.71115 | 33.63562 | 512.67409 | -3.16349 | -3.55912 | -4.14632 | -2.67508 | -2.96730 | -3.26438 |
| | 20.000 | -5.00000 | 2572.98371 | 33.69739 | 513.61562 | -3.17442 | -3.55430 | -4.16433 | -2.70264 | -2.98604 | -3.24262 |
| | 22.000 | -5.00000 | 2578.11011 | 33.77192 | 514.75153 | -3.22657 | -3.60477 | -4.21541 | -2.78202 | -3.04651 | -3.19089 |
| | 24.000 | -5.00000 | 2578.93777 | 33.78332 | 514.92529 | -3.28598 | -3.65240 | -4.25677 | -2.82240 | -3.09979 | -3.154308 |
| | GRADIENT | .00000 | .10779 | -.00123 | -.01880 | .01678 | .01805 | .09515 | .00978 | .01026 | .05609 |

ORIGINAL FACETS
OF POOR QUALITY

(EE7C04) (02 AUG 78)

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0370

RVL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT0E1 | DPT031 | DPT023 | DPT033 |
|--------------|----------|------------|-----------|------------|-------|--------|--------|--------|--------|--------|
| .000 | -2.00000 | 1846.93443 | 235.90358 | 1094.69649 | | -51577 | -57979 | -39306 | -43745 | -52623 |
| 2.000 | -2.00000 | 1846.41615 | 235.83478 | 1094.37723 | | -50476 | -56394 | -38548 | -42784 | -52628 |
| 4.000 | -2.00000 | 1846.47842 | 235.84348 | 1094.41763 | | -49328 | -55289 | -38444 | -42624 | -52048 |
| 6.000 | -2.00000 | 1847.01698 | 235.91540 | 1094.75133 | | -49170 | -54346 | -38183 | -41879 | -49933 |
| 8.000 | -2.00000 | 1846.99838 | 235.91268 | 1094.73875 | | -49216 | -54298 | -38386 | -42035 | -46466 |
| 10.000 | -2.00000 | 1846.85099 | 235.91120 | 1094.73189 | | -49146 | -53347 | -38482 | -41518 | -47201 |
| 12.000 | -2.00000 | 1846.64996 | 235.89971 | 1094.53934 | | -48527 | -52148 | -38228 | -40868 | -46159 |
| 14.000 | -2.00000 | 1846.54160 | 235.89366 | 1094.49269 | | -48000 | -51548 | -38227 | -40953 | -45354 |
| 16.000 | -2.00000 | 1847.17949 | 235.94132 | 1094.87161 | | -47891 | -51225 | -38622 | -41131 | -45042 |
| 18.000 | -2.00000 | 1846.84877 | 235.89543 | 1094.56352 | | -48827 | -51953 | -39530 | -41961 | -45375 |
| 20.000 | -2.00000 | 1846.81451 | 235.89547 | 1094.62337 | | -48827 | -52217 | -39821 | -42334 | -47519 |
| 22.000 | -2.00000 | 1847.32541 | 235.92547 | 1094.95123 | | -49843 | -53647 | -40858 | -43778 | -49717 |
| 24.000 | -2.00000 | 1846.82696 | 235.78710 | 1094.15599 | | -50483 | -53992 | -41875 | -44611 | -51119 |
| GRADIENT | .00000 | -.11399 | -.01502 | -.06971 | | .00412 | .00672 | .00383 | .00380 | .00144 |

RVL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT013 | DPT023 | DPT033 |
|--------------|----------|------------|-----------|------------|-------|--------|--------|--------|--------|--------|
| .000 | -2.00000 | 2060.32037 | 178.19294 | 1069.48225 | | -78309 | -88620 | -62584 | -68989 | -86743 |
| 2.000 | -2.00000 | 2059.99480 | 178.16426 | 1069.31013 | | -76918 | -86618 | -61761 | -68807 | -84983 |
| 4.000 | -2.00000 | 2059.56003 | 178.12785 | 1069.09161 | | -76340 | -85260 | -61386 | -67886 | -82882 |
| 6.000 | -2.00000 | 2060.01712 | 178.16692 | 1069.32610 | | -75246 | -84053 | -60628 | -67069 | -80138 |
| 8.000 | -2.00000 | 2060.34999 | 178.19534 | 1069.49667 | | -74487 | -82583 | -60277 | -65241 | -78241 |
| 10.000 | -2.00000 | 2060.24648 | 178.18648 | 1069.44347 | | -74182 | -81686 | -60295 | -65847 | -76998 |
| 12.000 | -2.00000 | 2061.26651 | 178.18653 | 1069.44377 | | -74691 | -81102 | -60943 | -65739 | -75233 |
| 14.000 | -2.00000 | 2060.47052 | 178.21377 | 1069.60732 | | -75074 | -81159 | -61439 | -66302 | -74175 |
| 16.000 | -2.00000 | 2060.55393 | 178.21377 | 1069.60732 | | -75107 | -80865 | -61830 | -66302 | -73281 |
| 18.000 | -2.00000 | 2060.43616 | 178.16844 | 1069.33524 | | -75894 | -81441 | -62847 | -67077 | -73866 |
| 20.000 | -2.00000 | 2060.44346 | 178.20315 | 1069.54353 | | -76977 | -82497 | -64060 | -68363 | -76957 |
| 22.000 | -2.00000 | 2060.15333 | 178.17854 | 1069.39586 | | -76750 | -82596 | -64241 | -68763 | -78083 |
| 24.000 | -2.00000 | 2060.04486 | 178.16328 | 1069.34026 | | -82351 | -88845 | -69841 | -74784 | -85903 |
| GRADIENT | .00000 | -.19038 | -.01627 | -.09767 | | .00492 | .00841 | .00294 | .00526 | .00973 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER → RAKES.

(EE7C04) (02 AUG 76)

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|---------|------------|----------|-----------|----------|----------|----------|--------|----------|----------|
| 2.000 | 0.000 | -2.0000 | 1497.7722 | 87.59769 | 659.27209 | -1.10894 | -1.24624 | -1.63370 | -89109 | -97710 | -1.23873 |
| 2.000 | 2.000 | -2.0000 | 1497.76450 | 87.59732 | 659.26928 | -1.09774 | -1.26965 | -1.60319 | -87468 | -96742 | -1.21780 |
| 4.000 | 4.000 | -2.0000 | 1497.76714 | 87.59741 | 659.27001 | -1.08344 | -1.20748 | -1.54593 | -86612 | -96389 | -1.18916 |
| 6.000 | 6.000 | -2.0000 | 1497.74226 | 87.59619 | 659.26081 | -1.07251 | -1.18358 | -1.47944 | -86153 | -94093 | -1.14421 |
| 8.000 | 8.000 | -2.0000 | 1497.75372 | 87.59682 | 659.26557 | -1.06113 | -1.15719 | -1.41281 | -86095 | -93327 | -1.12261 |
| 10.000 | 10.000 | -2.0000 | 1497.67010 | 87.59167 | 659.22676 | -1.05113 | -1.15719 | -1.40929 | -86070 | -93018 | -1.10744 |
| 12.000 | 12.000 | -2.0000 | 1498.01534 | 87.61195 | 659.37941 | -1.04496 | -1.15072 | -1.38663 | -86418 | -92652 | -1.07370 |
| 14.000 | 14.000 | -2.0000 | 1494.69499 | 87.41497 | 657.89693 | -1.07223 | -1.15530 | -1.37431 | -87431 | -93512 | -1.06040 |
| 16.000 | 16.000 | -2.0000 | 1494.60895 | 87.41100 | 657.86705 | -1.08702 | -1.1666 | -1.35863 | -89138 | -95012 | -1.05454 |
| 18.000 | 18.000 | -2.0000 | 1495.08079 | 87.43912 | 658.07667 | -1.09902 | -1.17977 | -1.35981 | -90649 | -96558 | -1.07612 |
| 20.000 | 20.000 | -2.0000 | 1494.25999 | 87.38984 | 657.70778 | -1.10897 | -1.19098 | -1.34427 | -92003 | -98157 | -1.08717 |
| 22.000 | 22.000 | -2.0000 | 1494.70457 | 87.41650 | 657.90915 | -1.12478 | -1.20724 | -1.34061 | -93561 | -99769 | -1.09642 |
| 24.000 | 24.000 | -2.0000 | 1494.94550 | 97.43099 | 658.01747 | -1.13915 | -1.21598 | -1.35739 | -95589 | -1.01526 | -1.12063 |
| GRADIENT | | | | | | .00638 | .00969 | .02344 | .00374 | .00580 | .01389 |

RM/L = 1.93 GRADIENT INTERVAL = -5.30/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.000 | 0.000 | -2.0000 | 1942.79945 | 51.29598 | 567.38300 | -2.05092 | -2.32688 | -3.22856 | -1.68257 | -1.87846 | -2.47700 |
| 3.000 | 2.000 | -2.0000 | 1939.95528 | 51.22303 | 566.57606 | -2.03265 | -2.29316 | -3.12439 | -1.67186 | -1.85781 | -2.41548 |
| 4.000 | 4.000 | -2.0000 | 1937.25540 | 51.15163 | 565.78529 | -2.02665 | -2.27388 | -3.04926 | -1.67050 | -1.84776 | -2.37254 |
| 6.000 | 6.000 | -2.0000 | 1932.01018 | 51.02006 | 564.33104 | -2.01759 | -2.24154 | -2.87727 | -1.66602 | -1.82731 | -2.26353 |
| 8.000 | 8.000 | -2.0000 | 1931.75623 | 51.01216 | 564.24371 | -2.01659 | -2.21939 | -2.81938 | -1.67008 | -1.81704 | -2.23283 |
| 10.000 | 10.000 | -2.0000 | 1932.19310 | 51.02143 | 564.34621 | -2.01474 | -2.19532 | -2.74308 | -1.67304 | -1.80466 | -2.18819 |
| 12.000 | 12.000 | -2.0000 | 1932.51784 | 51.02795 | 564.41837 | -2.02132 | -2.17770 | -2.64945 | -1.68316 | -1.79782 | -2.13206 |
| 14.000 | 14.000 | -2.0000 | 1931.30728 | 50.98554 | 563.96030 | -2.03798 | -2.19921 | -2.58781 | -1.70196 | -1.82067 | -2.09651 |
| 16.000 | 16.000 | -2.0000 | 1932.10713 | 51.00355 | 564.17945 | -2.05778 | -2.22671 | -2.57625 | -1.75315 | -1.85127 | -2.10345 |
| 18.000 | 18.000 | -2.0000 | 1931.43526 | 50.93055 | 564.04479 | -2.08065 | -2.26071 | -2.59624 | -1.78605 | -1.88751 | -2.13143 |
| 20.000 | 20.000 | -2.0000 | 1931.86768 | 50.99784 | 564.08523 | -2.10028 | -2.28525 | -2.61710 | -1.77744 | -1.91641 | -2.15949 |
| 22.000 | 22.000 | -2.0000 | 1932.01346 | 51.00587 | 564.17412 | -2.11350 | -2.32390 | -2.64158 | -1.81343 | -1.95611 | -2.19038 |
| 24.000 | 24.000 | -2.0000 | 1931.72012 | 50.99929 | 564.10132 | -2.18062 | -2.36642 | -2.67279 | -1.85987 | -2.00013 | -2.22770 |
| GRADIENT | | | | | | .00607 | .01325 | .04483 | .00302 | .00767 | .02611 |

TABULATED DATA - 0A16L (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A16L ORBITER + RAKES

(EE7C0*) (02 AUG 76)

REFERENCE DATA

SREF = 2680.0800 SQ.FT. XMRP = 1076.6800 IN. XG
 LREF = 474.8000 IN. YMRP = .0080 IN. YG
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZG
 SCALE = .0300

BETA =
 AILRON =

BETA =
 ELEVON = .000
 BOFLAP = -7.170

PARAMETRIC DATA

RN/L = 1.99 GRADIENT INTERVAL = -5.08/ 5.00

| MACH = 3.500 | ALPHA | BETA | P3 | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT043 | DPT023 | DPT033 |
|--------------|--------|----------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| | .000 | -2.00000 | 2608.07135 | 34.16512 | 520.74471 | -3.46310 | -3.98050 | -5.80904 | -2.88479 | -3.25286 | -4.44789 |
| | 2.000 | -2.00000 | 2609.47937 | 34.18432 | 521.03742 | -3.44536 | -3.90953 | -5.62357 | -2.87503 | -3.20328 | -4.33420 |
| | 4.000 | -2.00000 | 2610.52899 | 34.19799 | 521.24570 | -3.43677 | -3.84698 | -5.36805 | -2.86972 | -3.18391 | -4.18199 |
| | 6.000 | -2.00000 | 2614.11072 | 34.24500 | 521.96236 | -3.43781 | -3.81602 | -5.05354 | -2.87473 | -3.14706 | -3.98600 |
| | 8.000 | -2.00000 | 2614.27722 | 34.24722 | 521.98605 | -3.43985 | -3.76966 | -4.94083 | -2.88177 | -3.12047 | -3.92401 |
| | 10.000 | -2.00000 | 2619.19357 | 34.31230 | 522.98805 | -3.46394 | -3.76078 | -4.81857 | -2.90336 | -3.11684 | -3.86019 |
| | 12.000 | -2.00000 | 2615.71823 | 34.26563 | 522.27669 | -3.45659 | -3.73878 | -4.69896 | -2.90998 | -3.11629 | -3.72769 |
| | 14.000 | -2.00000 | 2617.88397 | 34.29432 | 522.71407 | -3.49151 | -3.79226 | -4.54331 | -2.94756 | -3.16899 | -3.70476 |
| | 16.000 | -2.00000 | 2615.77174 | 34.26626 | 522.28646 | -3.53904 | -3.86837 | -4.54758 | -2.99371 | -3.24024 | -3.72476 |
| | 18.000 | -2.00000 | 2617.10403 | 34.28431 | 522.56139 | -3.56008 | -3.91457 | -4.56974 | -3.03080 | -3.29452 | -3.76638 |
| | 20.000 | -2.00000 | 2615.61575 | 34.26406 | 522.25275 | -3.57443 | -3.97443 | -4.62140 | -3.07629 | -3.35456 | -3.82307 |
| | 22.000 | -2.00000 | 2619.49899 | 34.31592 | 523.04321 | -3.65805 | -4.03390 | -4.68031 | -3.13469 | -3.41756 | -3.88990 |
| | 24.000 | -2.00000 | 2624.04565 | 34.37497 | 523.94328 | -3.74136 | -4.12941 | -4.75298 | -3.21389 | -3.50676 | -3.96358 |
| GRADIENT | | .00000 | .61442 | .00822 | .12524 | .00698 | .03340 | .11000 | .00377 | .02223 | .05647 |

PARAMETRIC DATA

REFERENCE DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .600 | | | | | | | | | | | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|------------|------------|-----------|--------|--------|--------|--------|--------|--------|--|--------|--------|--------|--------|--------|
| ALPHA | .000 | PT | P | QCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 | | | | | | |
| 2.000 | .0000 | 2635.13434 | 2067.16993 | 568.96451 | .00252 | .00304 | .00148 | .00200 | .00242 | .00117 | | | | | | |
| 4.000 | .0000 | 2638.36844 | 2068.84036 | 569.52808 | .00184 | .00182 | .00157 | .00145 | .00145 | .00126 | | | | | | |
| 6.000 | .0000 | 2635.63572 | 2067.04514 | 568.79059 | .00018 | .00106 | .00250 | .00162 | .00193 | .00153 | | | | | | |
| 8.000 | .0000 | 2635.93494 | 2067.10458 | 568.95142 | .00191 | .00060 | .00119 | .00154 | .00065 | .00201 | | | | | | |
| 10.000 | .0000 | 2635.45613 | 2066.78952 | 568.83035 | .00060 | .00216 | .00073 | .00049 | .00177 | .00260 | | | | | | |
| 12.000 | .0000 | 2636.11769 | 2067.19876 | 568.67661 | .00024 | .00065 | .00004 | .00020 | .00054 | .00004 | | | | | | |
| 14.000 | .0000 | 2636.08533 | 2067.16296 | 568.91891 | .00148 | .00002 | .00170 | .00125 | .00002 | .00143 | | | | | | |
| 16.000 | .0000 | 2636.61063 | 2066.99408 | 568.92236 | .00015 | .00163 | .00106 | .00130 | .00140 | .00091 | | | | | | |
| 18.000 | .0000 | 2636.47891 | 2066.12332 | 569.61655 | .00419 | .00298 | .00435 | .00368 | .00262 | .00389 | | | | | | |
| 20.000 | .0000 | 2634.47891 | 2066.55417 | 568.35559 | .00934 | .00608 | .01039 | .00834 | .00544 | .00929 | | | | | | |
| 22.000 | .0000 | 2630.10581 | 2061.72964 | 567.55264 | .01760 | .01391 | .02391 | .01603 | .01267 | .02177 | | | | | | |
| 24.000 | .0000 | 2629.67941 | 2061.72964 | 567.94977 | .03432 | .02749 | .04715 | .03201 | .02565 | .04394 | | | | | | |
| GRADIENT | .00000 | .55853 | .41762 | .14089 | .00012 | .00016 | .00011 | .00010 | .00012 | .00009 | | | | | | |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .900 | | | | | | | | | | | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|------------|------------|-----------|--------|--------|--------|--------|--------|--------|--|--------|--------|--------|--------|--------|
| ALPHA | .000 | PT | P | QCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 | | | | | | |
| 2.000 | .0000 | 2113.98108 | 1249.92923 | 864.05185 | .00124 | .00016 | .00017 | .00092 | .00012 | .00012 | | | | | | |
| 4.000 | .0000 | 2112.05286 | 1248.77386 | 863.27899 | .00095 | .00117 | .00072 | .00071 | .00088 | .00054 | | | | | | |
| 6.000 | .0000 | 2114.64374 | 1250.29812 | 865.83621 | .00003 | .00184 | .00186 | .00003 | .00140 | .00142 | | | | | | |
| 8.000 | .0000 | 2110.03122 | 1247.57364 | 862.44464 | .00165 | .00175 | .00291 | .00128 | .00135 | .00226 | | | | | | |
| 10.000 | .0000 | 2112.73361 | 1249.11789 | 862.45758 | .00084 | .00163 | .00195 | .00066 | .00129 | .00153 | | | | | | |
| 12.000 | .0000 | 2114.69836 | 1250.25999 | 863.61572 | .00203 | .00063 | .00117 | .00162 | .00050 | .00093 | | | | | | |
| 14.000 | .0000 | 2117.13947 | 1251.72624 | 864.43839 | .00066 | .00018 | .00045 | .00053 | .00015 | .00037 | | | | | | |
| 16.000 | .0000 | 2116.02139 | 1251.05811 | 865.41324 | .00230 | .00176 | .00283 | .00190 | .00145 | .00234 | | | | | | |
| 18.000 | .0000 | 2113.29510 | 1249.47339 | 864.96329 | .00251 | .00142 | .00220 | .00213 | .00121 | .00187 | | | | | | |
| 20.000 | .0000 | 2111.35150 | 1248.25099 | 863.82173 | .00425 | .00533 | .00303 | .00356 | .00216 | .00261 | | | | | | |
| 22.000 | .0000 | 2110.78241 | 1247.85742 | 863.10052 | .00771 | .00933 | .00754 | .00674 | .00466 | .00659 | | | | | | |
| 24.000 | .0000 | 2113.14288 | 1249.38358 | 862.92439 | .01274 | .00924 | .01494 | .01138 | .00826 | .01335 | | | | | | |
| GRADIENT | .00000 | 1.05164 | .60574 | .44609 | .00366 | .01789 | .03073 | .02167 | .01640 | .02814 | | | | | | |

(EE7C05) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-09M)

ARC 11-97-87-09M OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 APLRON = .000 BDELAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RM/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.200 | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | .0000 | 2083.78401 | 828.63678 | 1165.30751 | -.01715 | -.01737 | -.01871 | -.01323 | -.01340 | -.01443 |
| 2.000 | .0000 | 2006.93002 | 827.95351 | 1165.34581 | -.01359 | -.01470 | -.01694 | -.01068 | -.01155 | -.01330 |
| 4.000 | .0000 | 2006.95340 | 827.74990 | 1165.05932 | -.01456 | -.01596 | -.01773 | -.01162 | -.01273 | -.01414 |
| 6.000 | .0000 | 2012.21327 | 829.46896 | 1167.47879 | -.01510 | -.01600 | -.01757 | -.01213 | -.01285 | -.01411 |
| 8.000 | .0000 | 2011.68602 | 829.32532 | 1167.27747 | -.01642 | -.01584 | -.01728 | -.01325 | -.01275 | -.01394 |
| 10.000 | .0000 | 2012.05740 | 829.42208 | 1167.41284 | -.01706 | -.01592 | -.01771 | -.01368 | -.01278 | -.01421 |
| 12.000 | .0000 | 2012.68660 | 829.63939 | 1167.79337 | -.01517 | -.01527 | -.01669 | -.01189 | -.01197 | -.01308 |
| 14.000 | .0000 | 2012.78661 | 829.69245 | 1167.79337 | -.01564 | -.01664 | -.01662 | -.01215 | -.01317 | -.01446 |
| 16.000 | .0000 | 2011.04118 | 829.14474 | 1167.02246 | -.01691 | -.01794 | -.01939 | -.01332 | -.01373 | -.01526 |
| 18.000 | .0000 | 2012.20630 | 829.51370 | 1167.54176 | -.01871 | -.01780 | -.01966 | -.01488 | -.01417 | -.01565 |
| 20.000 | .0000 | 2018.50417 | 831.53033 | 1170.38617 | -.02368 | -.02221 | -.02514 | -.01916 | -.01787 | -.02022 |
| 22.000 | .0000 | 2017.94965 | 831.40863 | 1170.20888 | -.02757 | -.02503 | -.02908 | -.02240 | -.02034 | -.02362 |
| 24.000 | .0000 | 2014.63448 | 830.32520 | 1168.68395 | -.03300 | -.02876 | -.03561 | -.02688 | -.02346 | -.02901 |
| GRADIENT | .00000 | -.77766 | -.22172 | -.31207 | -.00065 | -.00035 | -.00025 | -.00040 | -.00017 | -.00007 |

| MACH = 1.400 | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | .0000 | 2043.25790 | 642.23148 | 1316.08347 | -.08453 | -.09714 | -.09854 | -.06234 | -.07143 | -.07243 |
| 2.000 | .0000 | 2048.25000 | 643.57806 | 1318.84254 | -.08081 | -.09027 | -.08955 | -.06885 | -.06783 | -.06720 |
| 4.000 | .0000 | 2046.36710 | 643.02779 | 1317.71530 | -.08119 | -.08872 | -.08886 | -.06123 | -.06679 | -.06763 |
| 6.000 | .0000 | 2036.68442 | 640.56650 | 1312.67154 | -.07813 | -.08884 | -.09288 | -.05929 | -.06722 | -.07021 |
| 8.000 | .0000 | 2036.48167 | 640.58681 | 1312.71315 | -.07622 | -.08373 | -.09283 | -.05807 | -.06368 | -.07046 |
| 10.000 | .0000 | 2037.05580 | 640.77697 | 1313.10286 | -.07937 | -.08695 | -.08801 | -.06075 | -.06644 | -.06724 |
| 12.000 | .0000 | 2032.87712 | 639.62427 | 1310.74069 | -.07931 | -.08638 | -.08950 | -.06111 | -.06795 | -.06843 |
| 14.000 | .0000 | 2034.53185 | 640.07636 | 1311.65714 | -.07948 | -.08764 | -.08952 | -.06095 | -.06711 | -.06850 |
| 16.000 | .0000 | 2038.71129 | 641.14881 | 1313.86484 | -.08175 | -.08923 | -.08759 | -.06327 | -.06896 | -.06772 |
| 18.000 | .0000 | 2034.89971 | 640.10445 | 1311.72468 | -.08375 | -.09150 | -.09497 | -.06589 | -.07188 | -.07455 |
| 20.000 | .0000 | 2029.02078 | 638.64844 | 1308.74098 | -.08862 | -.09619 | -.10291 | -.07483 | -.08110 | -.08119 |
| 22.000 | .0000 | 2029.79141 | 638.90320 | 1309.26305 | -.09352 | -.10095 | -.10162 | -.07483 | -.08066 | -.08119 |
| 24.000 | .0000 | 2028.09665 | 638.46732 | 1309.36884 | -.09866 | -.10516 | -.10538 | -.07979 | -.08495 | -.08513 |
| GRADIENT | .00000 | -.77728 | -.19908 | -.40796 | -.00083 | -.00211 | -.00217 | -.00028 | -.00116 | -.00120 |

TABULATED DATA - 0A161 (ARC 11-97-67-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

(EE7005) (02 AUG 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 107E.6900 IN. XO
 LREF = 477.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AILRON = .000 BDFEAP = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | .00000 | 1580.54596 | 401.10618 | 1045.16287 | -.16398 | -.17803 | -.20498 | -.12471 | -.13532 | -.15496 |
| 2.000 | 2.000 | .00000 | 1581.96228 | 401.46997 | 1046.11082 | -.16154 | -.18612 | -.20018 | -.12378 | -.14118 | -.15220 |
| 4.000 | 4.000 | .00000 | 1581.60366 | 401.36976 | 1045.84958 | -.16062 | -.18194 | -.19880 | -.12325 | -.13902 | -.15139 |
| 6.000 | 6.000 | .00000 | 1581.71835 | 401.39628 | 1045.91879 | -.15594 | -.17176 | -.19359 | -.12085 | -.13270 | -.14694 |
| 8.000 | 8.000 | .00000 | 1582.28792 | 401.54744 | 1046.31267 | -.15664 | -.16628 | -.18379 | -.11423 | -.12359 | -.14250 |
| 10.000 | 10.000 | .00000 | 1584.01578 | 401.96475 | 1047.40005 | -.14756 | -.15786 | -.18256 | -.11554 | -.12336 | -.14208 |
| 12.000 | 12.000 | .00000 | 1584.74577 | 402.14309 | 1047.86478 | -.14893 | -.15941 | -.18043 | -.11669 | -.12509 | -.14103 |
| 14.000 | 14.000 | .00000 | 1584.30254 | 402.03269 | 1047.57710 | -.15002 | -.15774 | -.18043 | -.11669 | -.12453 | -.13943 |
| 16.000 | 16.000 | .00000 | 1584.53708 | 402.09357 | 1047.72572 | -.15330 | -.16113 | -.17809 | -.11669 | -.12453 | -.14138 |
| 18.000 | 18.000 | .00000 | 1585.24020 | 402.26379 | 1048.17926 | -.15781 | -.16948 | -.19025 | -.12738 | -.13654 | -.15275 |
| 20.000 | 20.000 | .00000 | 1585.26917 | 402.27295 | 1048.20312 | -.16249 | -.17208 | -.18695 | -.13196 | -.13953 | -.15123 |
| 22.000 | 22.000 | .00000 | 1584.67165 | 402.12355 | 1047.94364 | -.16568 | -.17372 | -.18574 | -.13479 | -.14115 | -.15062 |
| 24.000 | 24.000 | .00000 | 1584.25276 | 402.01530 | 1047.53178 | -.17024 | -.18822 | -.20276 | -.13954 | -.14750 | -.16536 |
| GRADIENT | | | 26428 | .06590 | .17171 | .00074 | -.08098 | .00155 | .00036 | -.00093 | -.00089 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | .000 | .00000 | 1657.74608 | 311.37225 | 1072.15807 | -.30791 | -.34903 | -.40668 | -.23458 | -.25755 | -.30436 |
| 2.000 | 2.000 | .00000 | 1657.99976 | 311.41864 | 1072.31970 | -.30197 | -.34026 | -.41095 | -.23198 | -.25962 | -.30969 |
| 4.000 | 4.000 | .00000 | 1657.20947 | 311.27179 | 1071.51404 | -.29949 | -.33480 | -.40743 | -.23020 | -.25674 | -.30726 |
| 6.000 | 6.000 | .00000 | 1656.47336 | 311.13422 | 1071.34035 | -.29182 | -.31481 | -.37631 | -.22499 | -.24173 | -.28585 |
| 8.000 | 8.000 | .00000 | 1657.27675 | 311.28436 | 1071.89733 | -.28323 | -.31055 | -.36261 | -.22090 | -.24107 | -.27931 |
| 10.000 | 10.000 | .00000 | 1657.32759 | 311.29292 | 1071.88681 | -.28371 | -.30395 | -.34997 | -.22266 | -.23774 | -.27165 |
| 12.000 | 12.000 | .00000 | 1656.50283 | 311.14008 | 1071.35053 | -.27965 | -.30138 | -.33759 | -.22072 | -.23711 | -.26403 |
| 14.000 | 14.000 | .00000 | 1657.07672 | 311.24621 | 1071.72598 | -.28071 | -.29902 | -.33759 | -.22393 | -.23784 | -.26403 |
| 16.000 | 16.000 | .00000 | 1656.60486 | 311.15869 | 1071.42461 | -.28639 | -.30509 | -.33093 | -.23076 | -.24350 | -.26376 |
| 18.000 | 18.000 | .00000 | 1656.32849 | 311.10677 | 1071.24582 | -.29490 | -.31558 | -.35775 | -.23576 | -.25246 | -.28438 |
| 20.000 | 20.000 | .00000 | 1656.80373 | 311.10677 | 1071.24582 | -.29324 | -.31957 | -.36722 | -.24179 | -.25753 | -.29578 |
| 22.000 | 22.000 | .00000 | 1657.27647 | 311.28266 | 1071.85149 | -.30405 | -.32275 | -.36907 | -.24814 | -.26270 | -.29846 |
| 24.000 | 24.000 | .00000 | 1657.16294 | 311.26139 | 1071.77823 | -.31414 | -.33202 | -.38293 | -.25760 | -.27160 | -.31128 |
| GRADIENT | | | 13413 | -.02512 | -.08649 | .00211 | -.00131 | -.06018 | .00110 | -.00045 | -.00073 |

(EE7C05) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-99*)

ARC 11-97-87-99* 0A161 ORBATER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.8800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|----------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| | .0000 | .0000 | 1847.14075 | 235.84824 | 1094.43847 | -.56112 | -.63886 | -.76821 | -.43693 | -.48959 | -.57847 |
| | 2.000 | .0000 | 1846.77534 | 235.80064 | 1094.21881 | -.54119 | -.61392 | -.74523 | -.42889 | -.47215 | -.56257 |
| | 4.000 | .0000 | 1847.06482 | 235.83635 | 1094.37987 | -.54205 | -.59998 | -.74688 | -.42313 | -.46382 | -.54740 |
| | 6.000 | .0000 | 1846.70287 | 235.79372 | 1094.17278 | -.53469 | -.59376 | -.70478 | -.42013 | -.46273 | -.54093 |
| | 8.000 | .0000 | 1846.84723 | 235.80916 | 1094.25836 | -.53104 | -.58770 | -.68501 | -.42121 | -.46261 | -.53226 |
| | 10.000 | .0000 | 1847.73077 | 235.93651 | 1094.84930 | -.52980 | -.57265 | -.65438 | -.41763 | -.45256 | -.51352 |
| | 12.000 | .0000 | 1847.06197 | 235.84271 | 1094.41483 | -.52980 | -.57265 | -.64677 | -.42343 | -.45512 | -.50929 |
| | 14.000 | .0000 | 1846.76268 | 235.79962 | 1094.21408 | -.52880 | -.56943 | -.64385 | -.42368 | -.45384 | -.50826 |
| | 16.000 | .0000 | 1846.78920 | 235.81072 | 1094.26558 | -.53106 | -.56944 | -.62767 | -.42799 | -.45670 | -.49973 |
| | 18.000 | .0000 | 1846.62433 | 235.78563 | 1094.14917 | -.53218 | -.57078 | -.63817 | -.43341 | -.46267 | -.51313 |
| | 20.000 | .0000 | 1845.85039 | 235.81953 | 1094.30649 | -.53507 | -.57272 | -.62122 | -.43859 | -.47085 | -.53476 |
| | 22.000 | .0000 | 1846.82697 | 235.81627 | 1094.29134 | -.54303 | -.58345 | -.67217 | -.44905 | -.48030 | -.54790 |
| | 24.000 | .0000 | 1845.84973 | 235.68545 | 1093.68892 | -.55362 | -.59260 | -.68004 | -.46346 | -.49407 | -.56184 |
| | GRADIENT | .00000 | -.01898 | -.00322 | -.01495 | .00552 | .00997 | .01251 | .00345 | .00643 | .00772 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|--------------|----------|--------|------------|-----------|------------|---------|---------|----------|---------|---------|---------|
| | .000 | .0000 | 2059.62274 | 178.13523 | 1069.13588 | -.85988 | -.97562 | -.123275 | -.69588 | -.76837 | -.94485 |
| | 2.000 | .0000 | 2059.69022 | 179.14101 | 1069.17859 | -.84598 | -.95746 | -.119469 | -.67851 | -.75895 | -.92364 |
| | 4.000 | .0000 | 2059.24142 | 178.10249 | 1068.93941 | -.83437 | -.93108 | -.115429 | -.67337 | -.74365 | -.90123 |
| | 6.000 | .0000 | 2058.67995 | 178.13995 | 1069.16425 | -.82025 | -.91635 | -.110395 | -.66431 | -.73443 | -.87202 |
| | 8.000 | .0000 | 2059.63947 | 178.17654 | 1069.14375 | -.81262 | -.90217 | -.108758 | -.66012 | -.72613 | -.85922 |
| | 10.000 | .0000 | 2059.11738 | 178.09175 | 1068.87497 | -.80425 | -.88834 | -.104415 | -.65604 | -.71847 | -.83139 |
| | 12.000 | .0000 | 2058.74341 | 178.05864 | 1068.68244 | -.80399 | -.87420 | -.101611 | -.65851 | -.71101 | -.81491 |
| | 14.000 | .0000 | 2059.55093 | 178.12881 | 1069.09737 | -.80634 | -.86903 | -.99455 | -.65310 | -.71027 | -.80301 |
| | 16.000 | .0000 | 2059.35752 | 178.11318 | 1069.00397 | -.80597 | -.86782 | -.97782 | -.65566 | -.71281 | -.79482 |
| | 18.000 | .0000 | 2058.63939 | 178.06788 | 1068.73170 | -.81023 | -.87412 | -.98580 | -.67271 | -.72189 | -.80597 |
| | 20.000 | .0000 | 2058.94348 | 178.09903 | 1068.91862 | -.82368 | -.88917 | -.102729 | -.68448 | -.73759 | -.81589 |
| | 22.000 | .0000 | 2058.94348 | 178.07670 | 1068.78462 | -.83066 | -.89438 | -.103763 | -.69620 | -.74540 | -.82403 |
| | 24.000 | .0000 | 2058.85312 | 178.06998 | 1068.73825 | -.83841 | -.90566 | -.113669 | -.70787 | -.75776 | -.83591 |
| | GRADIENT | .00000 | -.09532 | -.00818 | -.04911 | .00640 | .01111 | .01961 | .00313 | .00513 | .01090 |

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OF POOR QUALITY

(EE7C05) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 EDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT011 | DPT0E1 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|-------|-------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 2.500 | .0000 | .0000 | 1495.02940 | 87.42978 | 658.00838 | -1.21777 | -1.38700 | -1.79990 | -9.7702 | -1.05625 | -1.37282 |
| 2.000 | .0000 | .0000 | 1495.07198 | 87.43218 | 658.02643 | -1.20359 | -1.35870 | -1.76228 | -9.5628 | -1.07922 | -1.35078 |
| 4.000 | .0000 | .0000 | 1494.35016 | 87.38912 | 657.70236 | -1.19186 | -1.33043 | -1.69208 | -9.6322 | -1.06232 | -1.31012 |
| 6.000 | .0000 | .0000 | 1494.94664 | 87.42504 | 657.97271 | -1.18237 | -1.31533 | -1.62518 | -9.5916 | -1.05488 | -1.26373 |
| 8.000 | .0000 | .0000 | 1495.11034 | 87.43490 | 658.04689 | -1.16731 | -1.29523 | -1.58758 | -9.5068 | -1.04342 | -1.24603 |
| 10.000 | .0000 | .0000 | 1494.33298 | 87.39847 | 657.69749 | -1.15643 | -1.27250 | -1.54892 | -9.482 | -1.02961 | -1.22470 |
| 12.000 | .0000 | .0000 | 1494.36853 | 87.42731 | 657.99431 | -1.15428 | -1.25716 | -1.48504 | -9.4667 | -1.02249 | -1.18549 |
| 14.000 | .0000 | .0000 | 1494.32796 | 87.38815 | 657.69506 | -1.15213 | -1.25045 | -1.44960 | -9.5052 | -1.02345 | -1.16769 |
| 16.000 | .0000 | .0000 | 1494.89258 | 87.42212 | 657.95069 | -1.15860 | -1.25876 | -1.43960 | -9.5877 | -1.03339 | -1.15515 |
| 18.000 | .0000 | .0000 | 1494.35973 | 87.39025 | 657.71090 | -1.16769 | -1.26093 | -1.42026 | -9.6117 | -1.04110 | -1.15852 |
| 20.000 | .0000 | .0000 | 1494.85466 | 87.41989 | 657.93397 | -1.18237 | -1.26929 | -1.42113 | -9.6577 | -1.05268 | -1.16495 |
| 22.000 | .0000 | .0000 | 1494.36290 | 87.39047 | 657.71252 | -1.12048 | -1.29598 | -1.44744 | -1.00730 | -1.07669 | -1.16933 |
| 24.000 | .0000 | .0000 | 1494.88579 | 87.42173 | 657.94775 | -1.23276 | -1.31914 | -1.46656 | -1.03550 | -1.10124 | -1.21159 |
| GRADIENT | | | -.16982 | -.01016 | -.07650 | .00648 | .01414 | .02696 | .00345 | .00848 | .01567 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|-------|-------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.000 | .0000 | .0000 | 1940.57863 | 51.17667 | 566.06326 | -2.26207 | -2.63539 | -3.53935 | -1.86253 | -2.12692 | -2.78860 |
| 4.000 | .0000 | .0000 | 1940.33086 | 51.16886 | 565.97688 | -2.23896 | -2.57240 | -3.53466 | -1.84704 | -2.06454 | -2.72510 |
| 6.000 | .0000 | .0000 | 1939.42018 | 51.14571 | 565.72091 | -2.21732 | -2.51659 | -3.40634 | -1.83373 | -2.04848 | -2.64777 |
| 8.000 | .0000 | .0000 | 1939.65381 | 51.15674 | 565.84290 | -2.20925 | -2.49326 | -3.23637 | -1.83198 | -2.03636 | -2.54411 |
| 10.000 | .0000 | .0000 | 1938.91023 | 51.13770 | 565.63232 | -2.19275 | -2.46275 | -3.15322 | -1.82344 | -2.01921 | -2.49570 |
| 12.000 | .0000 | .0000 | 1939.74480 | 51.16337 | 565.88296 | -2.18566 | -2.43358 | -3.04960 | -1.82282 | -2.00370 | -2.43377 |
| 14.000 | .0000 | .0000 | 1939.98339 | 51.14639 | 565.72841 | -2.17243 | -2.38825 | -2.90633 | -1.81905 | -1.97596 | -2.34531 |
| 16.000 | .0000 | .0000 | 1939.37943 | 51.15133 | 565.78307 | -2.18342 | -2.38825 | -2.84785 | -1.83379 | -1.96537 | -2.31447 |
| 18.000 | .0000 | .0000 | 1938.79555 | 51.13805 | 565.63618 | -2.20322 | -2.41256 | -2.80772 | -1.85951 | -2.01078 | -2.29550 |
| 20.000 | .0000 | .0000 | 1939.61152 | 51.15323 | 565.80401 | -2.23301 | -2.43012 | -2.79081 | -1.86743 | -2.03505 | -2.29700 |
| 22.000 | .0000 | .0000 | 1939.61790 | 51.16009 | 565.87995 | -2.27276 | -2.46866 | -2.81287 | -1.92734 | -2.07474 | -2.32700 |
| 24.000 | .0000 | .0000 | 1938.89849 | 51.13827 | 565.63856 | -2.27218 | -2.52921 | -2.87728 | -1.97713 | -2.12932 | -2.38617 |
| GRADIENT | | | -.28961 | -.00774 | -.08559 | .01119 | .02922 | .05826 | .00720 | .01961 | .03521 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES.

(EE7009) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0330

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 3.500
 ALPHA =

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

| ALPHA | BETA | FT | P | OCOMP | DPTQ11 | DPTQ21 | DPTQ31 | DPTQ13 | DPTQ23 | DPTQ33 |
|--------|--------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 2.000 | .00000 | 2639.31985 | 34.57549 | 526.99953 | -3.78903 | -4.48493 | -6.57430 | -3.17087 | -3.66532 | -5.02495 |
| 4.000 | .00000 | 2640.21666 | 34.58445 | 527.13617 | -3.74498 | -4.37602 | -6.37896 | -3.13909 | -3.59078 | -4.90630 |
| 6.000 | .00000 | 2640.89996 | 34.59589 | 527.31057 | -3.71454 | -4.28688 | -6.09414 | -3.11750 | -3.52898 | -4.73082 |
| 8.000 | .00000 | 2644.64435 | 34.64481 | 528.05621 | -3.68747 | -4.25170 | -5.74018 | -3.10261 | -3.51034 | -4.51609 |
| 10.000 | .00000 | 2646.62357 | 34.67127 | 528.45953 | -3.66801 | -4.17108 | -5.52709 | -3.09638 | -3.46289 | -4.39308 |
| 12.000 | .00000 | 2646.60231 | 34.67362 | 528.49525 | -3.67166 | -4.13431 | -5.31406 | -3.10664 | -3.44583 | -4.26589 |
| 14.000 | .00000 | 2647.36554 | 34.68086 | 528.60566 | -3.67723 | -4.09457 | -5.07631 | -3.12111 | -3.41560 | -4.12212 |
| 16.000 | .00000 | 2652.42508 | 34.74652 | 529.60644 | -3.72200 | -4.07609 | -4.98029 | -3.16356 | -3.43980 | -4.01187 |
| 18.000 | .00000 | 2653.07376 | 34.75490 | 529.73420 | -3.75606 | -4.13523 | -4.87109 | -3.20075 | -3.46281 | -4.05375 |
| 20.000 | .00000 | 2650.26250 | 34.71894 | 529.18607 | -3.82745 | -4.19653 | -4.89528 | -3.27086 | -3.54684 | -4.10651 |
| 22.000 | .00000 | 2651.57239 | 34.73560 | 529.43997 | -3.85142 | -4.27056 | -4.95039 | -3.32905 | -3.61293 | -4.20452 |
| 24.000 | .00000 | 2652.55411 | 34.74832 | 529.63383 | -3.97815 | -4.36661 | -5.04795 | -3.41437 | -3.70534 | -4.29117 |
| | .00000 | 2651.96234 | 34.74070 | 529.51771 | -4.07794 | -4.46246 | -5.14205 | -3.50359 | -3.79349 | -4.39117 |
| | .00000 | .39504 | .00510 | .07776 | .01862 | .04951 | .12004 | .01334 | .03433 | .07553 |

(E77005) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-084 0A161 ORBITER + RAKES.

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 ALPION = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | QCOMP | DPTQ11 | DPTQ21 | DPTQ31 | DPTQ23 | DPTQ33 |
|----------|--------|---------|------------|------------|-----------|--------|--------|--------|--------|--------|
| .600 | .000 | 2.00000 | 2628.08527 | 2050.85532 | 567.22995 | .00183 | .00234 | .00093 | .00193 | .00077 |
| 2.000 | 2.000 | 2.00000 | 2625.49554 | 2058.85480 | 566.64084 | .00229 | .00280 | .00036 | .00187 | .00029 |
| 4.000 | 4.000 | 2.00000 | 2627.76624 | 2060.48969 | 567.27655 | .00238 | .00290 | .00178 | .00238 | .00147 |
| 6.000 | 6.000 | 2.00000 | 2627.00064 | 2059.99554 | 567.00510 | .00183 | .00105 | .00194 | .00087 | .00161 |
| 8.000 | 8.000 | 2.00000 | 2626.57894 | 2050.00323 | 566.97571 | .00132 | .00114 | .00139 | .00096 | .00117 |
| 10.000 | 10.000 | 2.00000 | 2626.30542 | 2059.42654 | 566.87888 | .00232 | .00163 | .00123 | .00110 | .00104 |
| 12.000 | 12.000 | 2.00000 | 2626.31223 | 2059.48074 | 566.83148 | .00244 | .00260 | .00300 | .00092 | .00104 |
| 14.000 | 14.000 | 2.00000 | 2628.99167 | 2061.44455 | 567.54712 | .00022 | .00133 | .00121 | .00222 | .00105 |
| 16.000 | 16.000 | 2.00000 | 2627.44873 | 2060.24384 | 567.20490 | .00039 | .00024 | .00060 | .00116 | .00053 |
| 18.000 | 18.000 | 2.00000 | 2626.31006 | 2059.46307 | 566.84698 | .00222 | .00085 | .00295 | .00077 | .00264 |
| 20.000 | 20.000 | 2.00000 | 2625.65559 | 2059.71997 | 566.93661 | .00824 | .00621 | .00931 | .00570 | .00655 |
| 22.000 | 22.000 | 2.00000 | 2624.28891 | 2057.95145 | 566.33746 | .01760 | .01420 | .02165 | .01318 | .02008 |
| 24.000 | 24.000 | 2.00000 | 2623.73047 | 2057.53900 | 566.19117 | .03433 | .02642 | .04425 | .02503 | .04188 |
| GRADIENT | | .00000 | -.07975 | -.09139 | .01165 | .00014 | .00014 | .00021 | .00011 | .00017 |

| MACH = | ALPHA | BETA | PT | P | QCOMP | DPTQ11 | DPTQ21 | DPTQ31 | DPTQ23 | DPTQ33 |
|----------|--------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|
| .900 | .000 | 2.00000 | 2112.48575 | 1248.91620 | 863.56955 | -.00141 | -.00073 | -.00126 | -.00056 | -.00097 |
| 2.000 | 2.000 | 2.00000 | 2115.92145 | 1251.04158 | 864.87988 | -.00107 | -.00081 | -.00170 | -.00064 | -.00134 |
| 4.000 | 4.000 | 2.00000 | 2119.15109 | 1252.90967 | 866.24142 | -.00003 | -.00025 | -.00044 | -.00020 | -.00059 |
| 6.000 | 6.000 | 2.00000 | 2117.58701 | 1251.97867 | 865.60834 | -.00088 | -.00024 | -.00044 | -.00019 | -.00035 |
| 8.000 | 8.000 | 2.00000 | 2114.79404 | 1250.37154 | 864.42252 | -.00028 | .00011 | .00016 | -.00009 | -.00013 |
| 10.000 | 10.000 | 2.00000 | 2119.07846 | 1252.94572 | 866.12875 | .00067 | .00055 | .00025 | .00045 | .00045 |
| 12.000 | 12.000 | 2.00000 | 2115.97958 | 1251.07672 | 864.90286 | .00041 | .00002 | .00066 | .00001 | .00055 |
| 14.000 | 14.000 | 2.00000 | 2114.68259 | 1250.28664 | 864.39597 | .00080 | .00003 | .00064 | .00003 | .00054 |
| 16.000 | 16.000 | 2.00000 | 2115.92549 | 1251.61702 | 865.28849 | -.00067 | -.00004 | -.00165 | -.00004 | -.00143 |
| 18.000 | 18.000 | 2.00000 | 2117.59959 | 1251.88719 | 865.51141 | -.00355 | -.00179 | -.00371 | -.00328 | -.00470 |
| 20.000 | 20.000 | 2.00000 | 2115.91051 | 1251.01956 | 864.89105 | -.00784 | -.00521 | -.00815 | -.00470 | -.00735 |
| 22.000 | 22.000 | 2.00000 | 2110.44638 | 1247.78032 | 852.66608 | -.01244 | -.00635 | -.01432 | -.00765 | -.01311 |
| 24.000 | 24.000 | 2.00000 | 2109.08910 | 1246.91112 | 862.17700 | -.02360 | -.01688 | -.03024 | -.00754 | -.02818 |
| GRADIENT | | .00000 | 1.66635 | -.92936 | -.66797 | .00035 | .00012 | .00050 | .00009 | .00039 |

TABULATED DATA - CA161 (ARC 11-97-87-09*)

ARC 11-97-87-09* CA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 ALPHA = .000 EDFLAP = -7.170

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPTQ11 | DPTQ21 | DPTQ31 | DPTQ13 | DPTQ23 | DPTQ33 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.200 | .000 | 2.00000 | 2009.55424 | 828.76637 | 1166.48930 | -.01550 | -.01687 | -.01739 | -.01238 | -.01347 | -.01389 |
| 2.000 | 4.000 | 2.00000 | 2008.90266 | 828.44971 | 1166.04420 | -.01502 | -.01660 | -.01700 | -.01265 | -.01354 | -.01459 |
| 4.000 | 6.000 | 2.00000 | 2009.08081 | 828.45160 | 1166.04684 | -.01476 | -.01537 | -.01601 | -.01219 | -.01299 | -.01352 |
| 6.000 | 8.000 | 2.00000 | 2012.49275 | 829.60759 | 1167.67390 | -.01548 | -.01625 | -.01741 | -.01291 | -.01355 | -.01452 |
| 8.000 | 10.000 | 2.00000 | 2012.15788 | 829.57092 | 1167.62230 | -.01678 | -.01603 | -.01657 | -.01328 | -.01329 | -.01518 |
| 10.000 | 12.000 | 2.00000 | 2011.92180 | 829.36008 | 1167.32553 | -.01508 | -.01623 | -.01656 | -.01273 | -.01274 | -.01373 |
| 14.000 | 16.000 | 2.00000 | 2013.54626 | 829.94049 | 1168.14247 | -.01471 | -.01533 | -.01606 | -.01170 | -.01224 | -.01277 |
| 16.000 | 18.000 | 2.00000 | 2015.19850 | 830.40101 | 1168.79065 | -.01630 | -.01619 | -.01706 | -.01288 | -.01279 | -.01318 |
| 18.000 | 20.000 | 2.00000 | 2013.69295 | 829.94411 | 1166.14755 | -.01812 | -.01773 | -.01842 | -.01465 | -.01432 | -.01471 |
| 20.000 | 22.000 | 2.00000 | 2013.23676 | 829.85232 | 1168.03244 | -.02028 | -.01868 | -.01944 | -.01651 | -.01621 | -.01684 |
| 22.000 | 24.000 | 2.00000 | 2017.18069 | 830.97342 | 1169.59531 | -.02295 | -.02193 | -.02355 | -.01965 | -.01807 | -.01935 |
| GRADIENT | | 2.00000 | 2019.10837 | 831.89306 | 1170.99317 | -.02818 | -.02554 | -.02640 | -.02131 | -.02131 | -.02350 |
| | | .00000 | 2020.01411 | 832.02087 | 1171.07062 | -.03593 | -.03188 | -.03581 | -.03052 | -.02651 | -.03059 |
| | | | -.11837 | -.07869 | -.11077 | .00018 | .00037 | .00034 | .00005 | .00020 | .00017 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPTQ11 | DPTQ21 | DPTQ31 | DPTQ13 | DPTQ23 | DPTQ33 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.400 | .000 | 2.00000 | 2044.20187 | 642.54803 | 1316.73216 | -.09216 | -.10413 | -.10345 | -.06951 | -.07826 | -.07783 |
| 2.000 | 4.000 | 2.00000 | 2045.49904 | 643.12830 | 1317.92126 | -.08582 | -.09785 | -.09308 | -.06599 | -.07516 | -.07146 |
| 4.000 | 6.000 | 2.00000 | 2041.44493 | 641.78355 | 1315.16575 | -.08540 | -.09602 | -.09277 | -.06513 | -.07419 | -.07173 |
| 6.000 | 8.000 | 2.00000 | 2044.57449 | 642.62668 | 1316.89333 | -.08144 | -.09223 | -.09435 | -.06364 | -.07240 | -.07400 |
| 8.000 | 10.000 | 2.00000 | 2040.73653 | 641.70628 | 1315.00722 | -.08248 | -.09133 | -.09518 | -.06447 | -.07130 | -.07467 |
| 10.000 | 12.000 | 2.00000 | 2035.77562 | 640.44118 | 1312.41475 | -.08201 | -.09213 | -.09854 | -.06429 | -.07228 | -.06936 |
| 14.000 | 16.000 | 2.00000 | 2036.94429 | 640.72521 | 1312.99580 | -.08204 | -.09105 | -.09622 | -.06499 | -.07156 | -.06767 |
| 16.000 | 18.000 | 2.00000 | 2039.66587 | 641.42471 | 1314.43022 | -.08467 | -.09401 | -.09859 | -.06628 | -.07345 | -.06930 |
| 20.000 | 22.000 | 2.00000 | 2039.82769 | 641.40276 | 1314.39522 | -.08664 | -.09601 | -.09913 | -.06820 | -.07550 | -.07338 |
| GRADIENT | | 2.00000 | 2039.32977 | 641.26414 | 1314.10118 | -.09060 | -.09933 | -.10589 | -.07321 | -.08087 | -.07875 |
| | | 2.00000 | 2033.81595 | 639.92600 | 1311.35902 | -.09828 | -.10673 | -.10926 | -.07842 | -.08506 | -.08295 |
| | | 2.00000 | 2023.58153 | 637.19749 | 1305.76765 | -.10453 | -.11693 | -.11121 | -.08408 | -.08907 | -.08693 |
| | | 2.00000 | 2021.60355 | 636.67337 | 1304.70592 | -.11039 | -.11745 | -.11952 | -.08993 | -.09522 | -.09394 |
| | | .00000 | -.11939 | -.39150 | .00169 | .00204 | .00257 | .00257 | .00054 | .00154 | .00153 |

RESEARCH CENTER
OF POLYMER MATERIALS

(EE7005) (02 AUG 75)

TABULATED DATA - OA161 (ARC 11-97-87-09*)

ARC 11-97-87-09* OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BCLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

MACH = 1.550 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT0:1 | DPT02 | DPT013 | DPT023 | DPT033 |
|----------|--------|------------|-----------|------------|-------|---------|---------|---------|---------|---------|
| 2.0000 | 1.550 | 1559.49995 | 397.95534 | 1036.97801 | | -1.7598 | -1.9243 | -1.3553 | -1.4781 | -1.6397 |
| 2.0000 | 2.000 | 1570.75030 | 398.53508 | 1038.46596 | | -1.7475 | -1.9572 | -1.3571 | -1.5143 | -1.6309 |
| 2.0000 | 4.000 | 1572.20035 | 398.65519 | 1039.35613 | | -1.7135 | -1.894 | -1.2571 | -1.4730 | -1.6312 |
| 2.0000 | 5.000 | 1572.37077 | 398.90957 | 1039.43916 | | -1.6314 | -1.7729 | -1.2321 | -1.3997 | -1.5410 |
| 2.0000 | 8.000 | 1573.70795 | 399.25253 | 1040.33282 | | -1.6914 | -1.6914 | -1.2321 | -1.3227 | -1.5051 |
| 2.0000 | 10.000 | 1573.65640 | 399.25252 | 1040.31351 | | -1.5875 | -1.6761 | -1.1579 | -1.2280 | -1.5014 |
| 2.0000 | 12.000 | 1572.64693 | 399.48661 | 1039.63991 | | -1.5504 | -1.6467 | -1.1579 | -1.2186 | -1.4785 |
| 2.0000 | 14.000 | 1572.63720 | 399.60075 | 1039.67572 | | -1.5942 | -1.6933 | -1.1579 | -1.2519 | -1.5411 |
| 2.0000 | 16.000 | 1572.12741 | 399.64843 | 1039.27285 | | -1.5635 | -1.6334 | -1.1579 | -1.4565 | -1.6041 |
| 2.0000 | 18.000 | 1571.7599 | 399.81422 | 1039.19070 | | -1.7437 | -1.8755 | -1.1579 | -1.5147 | -1.6592 |
| 2.0000 | 20.000 | 1574.13762 | 399.35440 | 1042.62433 | | -1.8525 | -1.9365 | -1.1579 | -1.5510 | -1.6936 |
| 2.0000 | 22.000 | 1576.2464 | 399.93516 | 1042.11156 | | -1.9326 | -2.0144 | -1.1579 | -1.6360 | -1.8074 |
| 2.0000 | 24.000 | 1576.55555 | 400.08383 | 1042.49895 | | -1.9778 | -2.0953 | -1.1579 | -1.7150 | -1.9305 |
| GRADIENT | | .92511 | .22529 | .58703 | | .00116 | .00075 | .00048 | .00013 | .00095 |

MACH = 1.750 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT0:1 | DPT02 | DPT013 | DPT023 | DPT033 |
|----------|--------|------------|-----------|------------|-------|---------|---------|---------|---------|---------|
| 2.0000 | 1.750 | 1655.77100 | 311.15917 | 1071.52611 | | -3.3558 | -3.6947 | -2.5889 | -2.8339 | -3.2457 |
| 2.0000 | 2.000 | 1655.71691 | 310.91837 | 1070.59709 | | -3.2937 | -3.5544 | -2.5162 | -2.7544 | -3.1614 |
| 2.0000 | 4.000 | 1655.46957 | 310.94656 | 1070.69418 | | -3.2578 | -3.5377 | -2.5162 | -2.7264 | -3.1214 |
| 2.0000 | 5.000 | 1655.59286 | 310.97910 | 1070.77524 | | -3.1507 | -3.4304 | -2.3459 | -2.6355 | -3.0338 |
| 2.0000 | 8.000 | 1656.17559 | 311.07182 | 1071.14615 | | -3.1176 | -3.3304 | -2.3459 | -2.5497 | -2.9558 |
| 2.0000 | 10.000 | 1656.23152 | 311.08552 | 1071.18301 | | -3.1176 | -3.3308 | -2.3459 | -2.5339 | -2.9454 |
| 2.0000 | 12.000 | 1656.22716 | 311.09345 | 1071.20061 | | -3.1312 | -3.3805 | -2.3459 | -2.5393 | -2.9685 |
| 2.0000 | 14.000 | 1656.22781 | 311.11329 | 1071.18301 | | -3.1576 | -3.3905 | -2.3459 | -2.5319 | -2.9521 |
| 2.0000 | 16.000 | 1656.54930 | 311.15355 | 1070.81123 | | -3.1805 | -3.4143 | -2.3459 | -2.5148 | -2.9371 |
| 2.0000 | 18.000 | 1656.12875 | 311.05519 | 1071.11641 | | -3.2460 | -3.5141 | -2.3459 | -2.5174 | -2.9478 |
| 2.0000 | 20.000 | 1655.59503 | 311.11927 | 1071.28969 | | -3.2278 | -3.4781 | -2.3459 | -2.4982 | -2.9349 |
| 2.0000 | 22.000 | 1655.95510 | 311.04332 | 1071.02734 | | -3.3392 | -3.5323 | -2.3459 | -2.5099 | -2.9452 |
| 2.0000 | 24.000 | 1655.65131 | 310.98100 | 1070.81276 | | -3.5547 | -3.6847 | -2.3459 | -2.5382 | -2.9541 |
| GRADIENT | | .32950 | -.06340 | -.28799 | | .00245 | .00392 | .00115 | .00064 | .00311 |

TABULATED DATA - CA161 (ARC 11-97-87-094)

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ARC 11-97-87-094 CA161 ORBITER + RAKES

11-02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 ALPHA = 2.000 EDFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | QCOMP | DPT011 | DPT02 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 2.000 | 2.00000 | 1845.98239 | 235.71697 | 1093.83054 | -61634 | -70006 | -62412 | -45550 | -54545 | -63193 |
| 2.000 | 2.00000 | 1845.69019 | 235.68356 | 1093.67549 | -61139 | -68998 | -61553 | -48370 | -53639 | -62857 |
| 4.000 | 2.00000 | 1844.79526 | 235.55110 | 1093.10722 | -60631 | -67444 | -59674 | -47913 | -53826 | -61435 |
| 6.000 | 2.00000 | 1844.06950 | 235.46566 | 1092.66437 | -59563 | -65979 | -57732 | -47145 | -51790 | -59403 |
| 8.000 | 2.00000 | 1845.05612 | 235.59471 | 1093.26320 | -59219 | -63769 | -57424 | -46396 | -54721 | -58313 |
| 10.000 | 2.00000 | 1845.94762 | 235.71722 | 1093.83081 | -57481 | -62860 | -57193 | -45823 | -52897 | -56414 |
| 12.000 | 2.00000 | 1845.38353 | 235.63626 | 1093.45602 | -57557 | -62451 | -57577 | -45376 | -52221 | -55668 |
| 14.000 | 2.00000 | 1845.05315 | 235.72144 | 1093.85130 | -57514 | -62124 | -57522 | -44730 | -52011 | -55956 |
| 16.000 | 2.00000 | 1846.19922 | 235.73932 | 1093.93427 | -57654 | -61861 | -57536 | -44153 | -50355 | -55719 |
| 18.000 | 2.00000 | 1846.65709 | 235.79776 | 1094.20544 | -58325 | -62540 | -57575 | -43553 | -51429 | -56657 |
| 20.000 | 2.00000 | 1847.25053 | 235.88823 | 1094.62527 | -59358 | -63934 | -57571 | -42906 | -52411 | -57679 |
| 22.000 | 2.00000 | 1847.20595 | 235.88139 | 1094.59354 | -60227 | -64528 | -57683 | -42393 | -53210 | -58473 |
| 24.000 | 2.00000 | 1846.34912 | 235.77158 | 1094.08394 | -61787 | -65278 | -57861 | -41859 | -53591 | -58794 |
| GRADIENT | .00000 | -29551 | -03897 | -18083 | .00251 | .05641 | .05694 | .00159 | .00430 | .00439 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | QCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|---------|------------|-----------|------------|--------|---------|---------|--------|--------|---------|
| 2.250 | 2.00000 | 2059.21463 | 178.10005 | 1068.92479 | -95330 | -109195 | -135357 | -75681 | -86269 | -102865 |
| 4.000 | 2.00000 | 2059.05692 | 178.08647 | 1068.84325 | -94199 | -107596 | -131923 | -74653 | -84305 | -100809 |
| 6.000 | 2.00000 | 2059.36257 | 178.11435 | 1069.01056 | -92933 | -106454 | -126537 | -73331 | -82657 | -99059 |
| 8.000 | 2.00000 | 2058.13321 | 178.09820 | 1068.91354 | -91352 | -104931 | -123115 | -72482 | -80820 | -96358 |
| 10.000 | 2.00000 | 2059.07935 | 178.08938 | 1068.85469 | -90180 | -99905 | -119303 | -71925 | -78693 | -93597 |
| 12.000 | 2.00000 | 2059.48004 | 178.12256 | 1069.05989 | -89091 | -97644 | -115910 | -71395 | -76663 | -91258 |
| 14.000 | 2.00000 | 2058.62603 | 178.04962 | 1068.62146 | -88002 | -96425 | -111619 | -70835 | -74569 | -89059 |
| 16.000 | 2.00000 | 2059.07443 | 178.08793 | 1069.85205 | -87802 | -94851 | -108760 | -70205 | -72504 | -87573 |
| 18.000 | 2.00000 | 2058.61588 | 178.04855 | 1068.61556 | -86302 | -93203 | -106170 | -69583 | -70428 | -85028 |
| 20.000 | 2.00000 | 2058.53250 | 178.04136 | 1068.57248 | -85446 | -91672 | -103729 | -68936 | -68267 | -82169 |
| 22.000 | 2.00000 | 2058.52411 | 178.04059 | 1068.55753 | -84546 | -90174 | -101562 | -68281 | -66227 | -80169 |
| 24.000 | 2.00000 | 2058.69705 | 178.04656 | 1068.60429 | -83938 | -88409 | -99441 | -67695 | -64271 | -78204 |
| GRADIENT | .00000 | 2058.37755 | 178.02781 | 1068.49115 | -82941 | -86546 | -97493 | -67162 | -62604 | -75428 |
| | .00000 | .04199 | .00357 | .02144 | .00634 | .01175 | .01654 | .00357 | .00593 | .00942 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA
 SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 938.6800 IN. ZMRP = 379.0000 IN. Z0
 SCALE = .0360

PARAMETRIC DATA
 BETA = 2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

MACH = 2.500 RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT023 | DPT033 | DPT023 | DPT033 |
|----------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|
| .000 | 1487.32057 | 86.97802 | 654.60834 | -1.32911 | -1.52129 | -1.93966 | -1.07166 | -1.07166 | -1.20731 | -1.48936 |
| 2.000 | 1487.98101 | 87.01936 | 654.91260 | -1.31996 | -1.50150 | -1.90831 | -1.06678 | -1.06678 | -1.19654 | -1.47073 |
| 4.000 | 1487.96725 | 87.01707 | 654.90228 | -1.30074 | -1.46032 | -1.84428 | -1.05510 | -1.05510 | -1.18902 | -1.43210 |
| 6.000 | 1487.96211 | 87.01669 | 654.89940 | -1.28284 | -1.43252 | -1.78141 | -1.04578 | -1.04578 | -1.15389 | -1.39689 |
| 8.000 | 1487.95708 | 87.01653 | 654.89824 | -1.27114 | -1.41037 | -1.74005 | -1.04021 | -1.04021 | -1.14135 | -1.37215 |
| 10.000 | 1487.91705 | 87.01443 | 654.88243 | -1.25110 | -1.38636 | -1.68724 | -1.02695 | -1.02695 | -1.12630 | -1.33860 |
| 12.000 | 1487.93314 | 87.01538 | 654.88956 | -1.24738 | -1.36678 | -1.62055 | -1.02739 | -1.02739 | -1.11529 | -1.29678 |
| 14.000 | 1487.92639 | 87.01483 | 654.88538 | -1.25283 | -1.35891 | -1.58784 | -1.03531 | -1.03531 | -1.11379 | -1.27912 |
| 16.000 | 1487.94725 | 87.01604 | 654.89454 | -1.26233 | -1.36334 | -1.56527 | -1.06388 | -1.06388 | -1.13770 | -1.27591 |
| 18.000 | 1487.92914 | 87.01502 | 654.88682 | -1.27815 | -1.37675 | -1.56784 | -1.04660 | -1.04660 | -1.12178 | -1.27057 |
| 20.000 | 1487.96275 | 87.01727 | 654.90379 | -1.30270 | -1.40341 | -1.57871 | -1.08995 | -1.08995 | -1.16544 | -1.29500 |
| 22.000 | 1487.95438 | 87.01694 | 654.90131 | -1.32657 | -1.42136 | -1.58333 | -1.11510 | -1.11510 | -1.18707 | -1.30792 |
| 24.000 | 1487.98357 | 87.01867 | 654.91432 | -1.35771 | -1.44644 | -1.61296 | -1.14533 | -1.14533 | -1.21384 | -1.33799 |
| GRADIENT | .16166 | .00976 | .07349 | .00709 | .01532 | .02385 | .00414 | .00414 | .00957 | .01406 |

MACH = 3.088 RM/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT023 | DPT033 | DPT023 | DPT033 |
|----------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|
| .000 | 1938.15904 | 51.12361 | 565.47639 | -2.54329 | -3.00018 | -4.03295 | -2.10269 | -2.10269 | -2.42621 | -3.10790 |
| 2.000 | 1940.13321 | 51.14938 | 565.76151 | -2.50173 | -2.93236 | -3.95294 | -2.07573 | -2.07573 | -2.38313 | -3.06362 |
| 4.000 | 1939.45256 | 51.13434 | 565.59567 | -2.46665 | -2.84088 | -3.81426 | -2.05338 | -2.05338 | -2.32900 | -2.98106 |
| 6.000 | 1939.50688 | 51.13526 | 565.60524 | -2.45269 | -2.79091 | -3.64311 | -2.04489 | -2.04489 | -2.28953 | -2.87262 |
| 8.000 | 1939.64354 | 51.14013 | 565.65813 | -2.42969 | -2.73843 | -3.53193 | -2.03085 | -2.03085 | -2.25667 | -2.80434 |
| 10.000 | 1937.17825 | 51.07750 | 564.96639 | -2.40454 | -2.70758 | -3.40097 | -2.01614 | -2.01614 | -2.23805 | -2.72289 |
| 12.000 | 1938.09195 | 51.10284 | 565.24663 | -2.38662 | -2.65186 | -3.25022 | -2.00820 | -2.00820 | -2.20488 | -2.62976 |
| 14.000 | 1937.60146 | 51.08700 | 565.07146 | -2.39908 | -2.63751 | -3.17970 | -2.02397 | -2.02397 | -2.19805 | -2.58866 |
| 16.000 | 1939.26842 | 51.13221 | 565.57153 | -2.43052 | -2.65327 | -3.13577 | -2.02579 | -2.02579 | -2.22910 | -2.57228 |
| 18.000 | 1938.53479 | 51.11276 | 565.53637 | -2.46317 | -2.68446 | -3.11534 | -2.08809 | -2.08809 | -2.25376 | -2.56733 |
| 20.000 | 1938.72614 | 51.12192 | 565.45771 | -2.49672 | -2.71834 | -3.10978 | -2.12377 | -2.12377 | -2.29097 | -2.57774 |
| 22.000 | 1938.94917 | 51.12888 | 565.53468 | -2.55643 | -2.77711 | -3.15254 | -2.17923 | -2.17923 | -2.34586 | -2.62922 |
| 24.000 | 1938.90468 | 51.12836 | 565.52894 | -2.63281 | -2.85454 | -3.21105 | -2.24779 | -2.24779 | -2.41553 | -2.67911 |
| GRADIENT | .07349 | .00268 | .02967 | .01916 | .03922 | .05466 | .01232 | .01232 | .02983 | .03171 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 373.0000 IN. Z0
 SCALE = .0300

RMXL = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.178

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT011 | DPT021 | DPT031 | DPT043 | DPT023 | DPT033 |
|----------|--------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.500 | .000 | 2.00000 | 2667.86812 | 34.95021 | 532.71109 | -4.27664 | -5.18998 | -7.39013 | -3.57300 | -4.21562 | -5.62786 |
| 2.000 | 2.000 | 2.00000 | 2667.98584 | 34.95149 | 532.73895 | -4.18273 | -5.00869 | -7.13656 | -3.50793 | -4.08980 | -5.48124 |
| 4.000 | 4.000 | 2.00000 | 2667.56579 | 34.94680 | 532.64699 | -4.13234 | -4.83714 | -6.86849 | -3.47568 | -3.98159 | -5.32585 |
| 6.000 | 6.000 | 2.00000 | 2668.66705 | 34.96039 | 532.86630 | -4.10680 | -4.77287 | -6.54577 | -3.45802 | -3.93176 | -5.12500 |
| 8.000 | 8.000 | 2.00000 | 2668.83286 | 34.96268 | 532.89992 | -4.05873 | -4.65686 | -6.26549 | -3.42407 | -3.86468 | -4.95974 |
| 10.000 | 10.000 | 2.00000 | 2667.49628 | 34.94465 | 532.62630 | -4.03253 | -4.61498 | -5.97908 | -3.41699 | -3.84201 | -4.78598 |
| 12.000 | 12.000 | 2.00000 | 2669.68775 | 34.97392 | 533.07244 | -4.02382 | -4.51678 | -5.69581 | -3.42185 | -3.78533 | -4.61199 |
| 14.000 | 14.000 | 2.00000 | 2668.85681 | 34.96312 | 532.90790 | -4.06161 | -4.49899 | -5.58216 | -3.45942 | -3.78282 | -4.56179 |
| 16.000 | 16.000 | 2.00000 | 2668.65961 | 34.97344 | 533.06512 | -4.09538 | -4.42666 | -5.48460 | -3.49963 | -3.82075 | -4.49480 |
| 18.000 | 18.000 | 2.00000 | 2668.67300 | 34.96078 | 532.87287 | -4.17782 | -4.60537 | -5.42670 | -3.57230 | -3.89146 | -4.48344 |
| 20.000 | 20.000 | 2.00000 | 2670.18805 | 34.98034 | 533.17038 | -4.28075 | -4.70354 | -5.48138 | -3.65714 | -3.98360 | -4.54746 |
| 22.000 | 22.000 | 2.00000 | 2668.19308 | 34.95368 | 532.78417 | -4.38478 | -4.81188 | -5.56172 | -3.78458 | -4.08198 | -4.62708 |
| 24.000 | 24.000 | 2.00000 | 2670.01163 | 34.97792 | 533.13458 | -4.50366 | -4.96561 | -5.71775 | -3.86590 | -4.21289 | -4.76005 |
| GRADIENT | | .00000 | -.08307 | -.00105 | -.04683 | .03607 | .08796 | .13041 | .02433 | .05843 | .07550 |

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TABULATED DATA - CA161 (ARC 11-97-87-084)

ARC 11-97-87-084 CA161 ORBITER + RAKES

(EE7C07) (02 AUG 78)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RMXL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|---------|------------|------------|-----------|--------|--------|--------|--------|--------|--------|
| .500 | 5.00000 | 2624.00095 | 2057.68289 | 566.31805 | .00125 | .08178 | .00107 | .00108 | .00153 | .00092 |
| .000 | 5.00000 | 2623.93231 | 2057.61972 | 566.31259 | .00135 | .00057 | .00179 | .00116 | .00049 | .00054 |
| 2.000 | 5.00000 | 2624.85639 | 2058.36877 | 566.48758 | .00182 | .00219 | .00206 | .00158 | .00190 | .00178 |
| 4.000 | 5.00000 | 2627.65573 | 2060.37475 | 567.28088 | .00068 | .00058 | .00217 | .00058 | .00050 | .00188 |
| 6.000 | 5.00000 | 2625.01135 | 2059.40183 | 565.60647 | .00155 | .00142 | .00126 | .00135 | .00167 | .00110 |
| 8.000 | 5.00000 | 2625.66368 | 2059.00568 | 566.85800 | .00034 | .00273 | .00209 | .00030 | .00241 | .00185 |
| 10.000 | 5.00000 | 2624.17407 | 2057.86670 | 566.30737 | .00331 | .00240 | .00072 | .00294 | .00213 | .00064 |
| 12.000 | 5.00000 | 2624.35069 | 2058.02087 | 566.33984 | .00314 | .00190 | .00032 | .00170 | .00007 | .00029 |
| 14.000 | 5.00000 | 2624.72836 | 2058.21182 | 566.51654 | .00107 | .00061 | .00159 | .00281 | .00170 | .00144 |
| 16.000 | 5.00000 | 2627.48154 | 2059.98523 | 567.26209 | .00480 | .00236 | .00422 | .00370 | .00001 | .00390 |
| 18.000 | 5.00000 | 2627.18732 | 2059.22818 | 567.25336 | .00764 | .04685 | .00970 | .00721 | .00571 | .00915 |
| 20.000 | 5.00000 | 2627.48154 | 2059.51157 | 566.53898 | .01580 | .01214 | .02362 | .01508 | .01159 | .02254 |
| 22.000 | 5.00000 | 2625.04254 | 2058.51157 | 566.53898 | .03245 | .02379 | .04553 | .03138 | .02302 | .04401 |
| 24.000 | 5.00000 | 2625.90552 | 2059.18518 | 566.77034 | .00614 | .00010 | .00025 | .00042 | .00008 | .00022 |
| GRADIENT | .00000 | .21387 | .17145 | .C-1238 | | | | | | |

RMXL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|---------|------------|------------|-----------|--------|--------|--------|--------|--------|--------|
| .900 | 5.00000 | 2711.48715 | 1248.59783 | 862.97934 | .00021 | .00054 | .00103 | .00017 | .00044 | .00084 |
| .000 | 5.00000 | 2715.43283 | 1250.78174 | 864.65109 | .00036 | .00138 | .00088 | .00029 | .00113 | .00073 |
| 2.000 | 5.00000 | 2717.10138 | 1251.73029 | 865.37109 | .00081 | .00031 | .00008 | .00068 | .00026 | .00067 |
| 4.000 | 5.00000 | 2714.79214 | 1250.37328 | 864.41868 | .00124 | .00040 | .00060 | .00104 | .00034 | .00051 |
| 6.000 | 5.00000 | 2709.96957 | 1247.40634 | 862.56323 | .00028 | .00154 | .00175 | .00204 | .00140 | .00158 |
| 8.000 | 5.00000 | 2716.56833 | 1251.47731 | 865.09103 | .00100 | .00071 | .00011 | .00087 | .00052 | .00074 |
| 10.000 | 5.00000 | 2716.71035 | 1251.56195 | 865.14841 | .00080 | .00056 | .00085 | .00070 | .00059 | .00074 |
| 12.000 | 5.00000 | 2712.28323 | 1248.98517 | 863.37888 | .00040 | .00138 | .00103 | .00035 | .00124 | .00091 |
| 14.000 | 5.00000 | 2714.90735 | 1250.43449 | 864.47287 | .00061 | .00038 | .00087 | .00055 | .00008 | .00079 |
| 16.000 | 5.00000 | 2715.76746 | 1250.94667 | 864.82080 | .00415 | .00334 | .00463 | .00353 | .00254 | .00426 |
| 18.000 | 5.00000 | 2708.11169 | 1246.37884 | 861.73262 | .00640 | .00435 | .00720 | .00425 | .00425 | .00673 |
| 20.000 | 5.00000 | 2704.97089 | 1247.37915 | 862.59174 | .02452 | .01740 | .01455 | .01187 | .00777 | .01379 |
| 22.000 | 5.00000 | 2716.70166 | 1251.42284 | 865.27884 | .00015 | .00021 | .00013 | .00013 | .00013 | .00013 |
| 24.000 | 5.00000 | 2716.70166 | 1251.42284 | 865.27884 | | | | | | |
| GRADIENT | .00000 | 1.40354 | .80562 | .59794 | | | | | | |

TABULATED DATA - 0A161 (ARC 11-97-87-084)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
A1LRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RNAL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PF | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.200 | .000 | 5.00000 | 2011.53369 | 829.44221 | 1167.44115 | -.01642 | -.01702 | -.01856 | -.01371 | -.01427 | -.01549 |
| 2.000 | .000 | 5.00000 | 2009.60754 | 828.83753 | 1166.59583 | -.01616 | -.01591 | -.01750 | -.01386 | -.01364 | -.01500 |
| 4.000 | .000 | 5.00000 | 2010.79175 | 829.08212 | 1166.93431 | -.01483 | -.01633 | -.01724 | -.01284 | -.01413 | -.01482 |
| 6.000 | .000 | 5.00000 | 2013.56270 | 830.00262 | 1168.22982 | -.01535 | -.01598 | -.01725 | -.01338 | -.01366 | -.01503 |
| 8.000 | .000 | 5.00000 | 2013.08412 | 829.84943 | 1168.01431 | -.01544 | -.01578 | -.01722 | -.01345 | -.01357 | -.01498 |
| 10.000 | .000 | 5.00000 | 2013.08351 | 829.88634 | 1168.06627 | -.01607 | -.01616 | -.01721 | -.01363 | -.01370 | -.01460 |
| 12.000 | .000 | 5.00000 | 2013.92958 | 830.14828 | 1168.43494 | -.01698 | -.01690 | -.01707 | -.01385 | -.01379 | -.01392 |
| 14.000 | .000 | 5.00000 | 2014.49097 | 830.35471 | 1168.72548 | -.01943 | -.01945 | -.01765 | -.01610 | -.01588 | -.01441 |
| 16.000 | .000 | 5.00000 | 2014.72244 | 830.37983 | 1168.76085 | -.02233 | -.02136 | -.01941 | -.01862 | -.01781 | -.01619 |
| 18.000 | .000 | 5.00000 | 2016.25015 | 830.79647 | 1169.34586 | -.02442 | -.02263 | -.02148 | -.02055 | -.01960 | -.01809 |
| 20.000 | .000 | 5.00000 | 2018.08566 | 831.44070 | 1170.25401 | -.02778 | -.02595 | -.02469 | -.02397 | -.02196 | -.02095 |
| 22.000 | .000 | 5.00000 | 2016.50361 | 830.88952 | 1168.47824 | -.03381 | -.03137 | -.02916 | -.02800 | -.02575 | -.02573 |
| 24.000 | .000 | 5.00000 | 2018.10297 | 831.41154 | 1170.21298 | -.04764 | -.04215 | -.04041 | -.04036 | -.03573 | -.03427 |
| GRADIENT | | | -.18349 | -.09002 | -.12671 | .00040 | .00017 | .00033 | .00022 | .00002 | .00014 |

| MACH | ALPHA | BETA | PF | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.400 | .000 | 5.00000 | 2051.64871 | 644.49467 | 1320.72128 | -.09758 | -.10996 | -.10487 | -.07610 | -.08564 | -.08157 |
| 2.000 | .000 | 5.00000 | 2052.58506 | 644.77777 | 1321.30142 | -.09218 | -.10634 | -.09888 | -.07591 | -.08425 | -.07906 |
| 4.000 | .000 | 5.00000 | 2045.37286 | 642.84837 | 1317.34763 | -.09248 | -.10295 | -.09635 | -.07377 | -.08152 | -.07608 |
| 6.000 | .000 | 5.00000 | 2043.72665 | 642.43147 | 1316.49332 | -.09855 | -.09895 | -.09248 | -.07255 | -.07917 | -.08089 |
| 8.000 | .000 | 5.00000 | 2038.74538 | 641.18606 | 1313.84118 | -.09186 | -.10138 | -.10230 | -.07364 | -.08112 | -.08185 |
| 10.000 | .000 | 5.00000 | 2037.38092 | 640.82353 | 1313.19847 | -.09179 | -.10109 | -.10012 | -.07384 | -.08130 | -.08095 |
| 12.000 | .000 | 5.00000 | 2038.57906 | 641.10638 | 1313.77788 | -.09358 | -.10393 | -.09732 | -.07482 | -.08311 | -.07792 |
| 14.000 | .000 | 5.00000 | 2044.59829 | 642.68528 | 1317.01324 | -.09675 | -.10637 | -.10307 | -.07492 | -.08464 | -.08229 |
| 16.000 | .000 | 5.00000 | 2042.24944 | 642.08585 | 1315.78711 | -.10034 | -.10770 | -.10926 | -.08147 | -.08734 | -.08658 |
| 18.000 | .000 | 5.00000 | 2029.50903 | 638.78869 | 1308.01199 | -.10728 | -.11572 | -.11441 | -.08774 | -.09452 | -.09347 |
| 20.000 | .000 | 5.00000 | 2032.02077 | 638.50005 | 1310.48613 | -.11448 | -.12219 | -.12278 | -.09336 | -.09976 | -.10000 |
| 22.000 | .000 | 5.00000 | 2035.48625 | 640.41441 | 1312.35988 | -.12048 | -.12638 | -.12702 | -.09895 | -.10426 | -.10758 |
| 24.000 | .000 | 5.00000 | 2020.62016 | 636.51413 | 1304.36728 | -.13194 | -.13838 | -.14823 | -.10937 | -.11476 | -.12257 |
| GRADIENT | | | -1.56897 | -.41158 | -.84741 | .00127 | .00175 | .00213 | .00058 | .00098 | .00122 |

(EE7C07) (02 AUG 76)

TABULATED DATA - OAL161 (ARC 11-97-87-094)
ARC 11-97-87-094 OAL161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2600.0000 SQ.FT. XMRP = 1076.6000 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 986.6000 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RM/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.500 | .000 | 5.00000 | 1561.82259 | 396.34618 | 1032.75972 | -.19932 | -.21206 | -.23342 | -.15603 | -.16562 | -.18169 |
| 2.000 | .000 | 5.00000 | 1563.04628 | 396.65676 | 1033.56905 | -.19262 | -.20693 | -.23128 | -.15162 | -.16248 | -.18075 |
| 4.000 | .000 | 5.00000 | 1563.16922 | 396.66547 | 1033.58172 | -.18425 | -.20856 | -.21889 | -.14657 | -.15910 | -.17309 |
| 6.000 | .000 | 5.00000 | 1563.46626 | 396.74025 | 1033.76656 | -.18412 | -.19684 | -.21308 | -.14731 | -.15723 | -.16958 |
| 8.000 | .000 | 5.00000 | 1567.39949 | 397.71354 | 1036.32269 | -.17756 | -.18670 | -.20541 | -.14279 | -.14961 | -.16443 |
| 10.000 | .000 | 5.00000 | 1572.23986 | 398.95424 | 1038.56558 | -.18034 | -.18758 | -.20547 | -.14589 | -.15105 | -.16470 |
| 12.000 | .000 | 5.00000 | 1572.17735 | 398.42982 | 1038.18809 | -.18586 | -.19623 | -.20783 | -.15034 | -.15895 | -.17522 |
| 14.000 | .000 | 5.00000 | 1568.15364 | 397.92425 | 1036.82173 | -.18586 | -.21215 | -.23478 | -.15921 | -.17216 | -.18933 |
| 16.000 | .000 | 5.00000 | 1568.63318 | 398.03831 | 1037.16893 | -.20575 | -.21917 | -.23495 | -.16709 | -.17785 | -.19795 |
| 18.000 | .000 | 5.00000 | 1568.80666 | 398.07167 | 1037.25986 | -.20686 | -.22127 | -.24236 | -.16959 | -.18093 | -.19935 |
| 20.000 | .000 | 5.00000 | 1568.97487 | 398.12084 | 1037.38345 | -.22321 | -.22888 | -.24448 | -.17616 | -.18444 | -.20321 |
| 22.000 | .000 | 5.00000 | 1571.11673 | 398.66989 | 1038.81490 | -.23279 | -.23622 | -.26405 | -.19407 | -.19684 | -.21921 |
| 24.000 | .000 | 5.00000 | 1571.43868 | 398.73846 | 1038.99330 | -.25456 | -.25842 | -.28308 | -.21083 | -.21391 | -.23354 |
| GRADIENT | | .00000 | .33665 | .07983 | .20880 | .00377 | .09287 | .08363 | .00236 | .00163 | .00213 |

RM/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | .000 | 5.00000 | 1655.65865 | 310.98268 | 1078.81854 | -.38902 | -.42330 | -.47274 | -.38372 | -.32871 | -.36427 |
| 2.000 | .000 | 5.00000 | 1655.87311 | 311.02239 | 1079.95529 | -.38721 | -.41559 | -.46723 | -.36338 | -.32418 | -.36156 |
| 4.000 | .000 | 5.00000 | 1655.81648 | 311.01186 | 1079.91904 | -.37306 | -.40492 | -.45143 | -.29546 | -.31913 | -.35330 |
| 6.000 | .000 | 5.00000 | 1655.53950 | 311.14683 | 1077.38103 | -.36978 | -.39319 | -.43566 | -.29453 | -.31210 | -.34365 |
| 8.000 | .000 | 5.00000 | 1655.73843 | 310.99725 | 1078.86871 | -.36345 | -.38682 | -.43413 | -.29105 | -.30871 | -.34410 |
| 10.000 | .000 | 5.00000 | 1655.74200 | 310.99868 | 1078.87334 | -.36617 | -.38865 | -.42542 | -.29357 | -.31058 | -.33816 |
| 12.000 | .000 | 5.00000 | 1654.84193 | 310.82005 | 1078.25894 | -.36301 | -.38915 | -.41734 | -.29317 | -.31305 | -.33448 |
| 14.000 | .000 | 5.00000 | 1656.26360 | 311.09286 | 1071.19794 | -.37003 | -.40137 | -.45199 | -.30014 | -.32414 | -.36250 |
| 16.000 | .000 | 5.00000 | 1656.03867 | 311.05466 | 1071.06638 | -.37919 | -.40616 | -.46194 | -.30882 | -.32872 | -.37105 |
| 18.000 | .000 | 5.00000 | 1655.02122 | 310.85534 | 1070.38805 | -.37543 | -.40415 | -.45417 | -.30728 | -.32547 | -.36783 |
| 20.000 | .000 | 5.00000 | 1654.73904 | 310.79940 | 1070.18747 | -.37996 | -.40811 | -.46291 | -.30728 | -.32618 | -.37782 |
| 22.000 | .000 | 5.00000 | 1655.71509 | 310.96660 | 1070.82997 | -.39555 | -.42682 | -.48226 | -.32849 | -.35249 | -.39634 |
| 24.000 | .000 | 5.00000 | 1656.66173 | 311.15761 | 1071.45531 | -.42213 | -.45351 | -.50697 | -.35093 | -.37562 | -.41726 |
| GRADIENT | | .00000 | .03946 | .00730 | .02512 | .00388 | .00459 | .00533 | .00207 | .00239 | .00274 |

TABULATED DATA - OA161 (ARC 11-97-87-0-4)
ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA
SREF = 2698.0000 SQ.FT. XMRP = 1075.6800 IN. X0
LREF = 474.8000 IN. YMRP = 0900 IN. Y0
BREF = 956.6800 IN. ZMRP = 375.0800 IN. Z0
SCALE = .0300

RVAL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|---------|------------|-----------|------------|---------|--------|--------|--------|--------|--------|
| 2.000 | .000 | 5.00000 | 1834.93884 | 234.25348 | 1087.03931 | -708746 | -78382 | -69275 | -58463 | -61902 | -69803 |
| 2.000 | 2.000 | 5.00000 | 1830.93913 | 233.75630 | 1084.73218 | -69212 | -76054 | -67407 | -55373 | -60359 | -68458 |
| 4.000 | 4.000 | 5.00000 | 1831.46227 | 233.83033 | 1085.07568 | -68274 | -73847 | -65161 | -55021 | -59133 | -67319 |
| 6.000 | 6.000 | 5.00000 | 1831.73577 | 233.86808 | 1085.25089 | -66187 | -72435 | -63662 | -53761 | -58423 | -66640 |
| 8.000 | 8.000 | 5.00000 | 1834.07381 | 234.17492 | 1086.67477 | -65068 | -70755 | -61223 | -53092 | -57394 | -65100 |
| 10.000 | 10.000 | 5.00000 | 1836.11595 | 234.42052 | 1087.61444 | -65392 | -70348 | -60842 | -53096 | -57367 | -64428 |
| 12.000 | 12.000 | 5.00000 | 1836.10439 | 234.41893 | 1087.60734 | -63751 | -70001 | -79250 | -52563 | -57321 | -63275 |
| 14.000 | 14.000 | 5.00000 | 1841.36962 | 235.10691 | 1090.99960 | -63870 | -69378 | -79250 | -52933 | -57169 | -64641 |
| 16.000 | 16.000 | 5.00000 | 1849.86311 | 236.19734 | 1096.05960 | -64354 | -69678 | -81710 | -53322 | -57415 | -66600 |
| 18.000 | 18.000 | 5.00000 | 1849.98558 | 236.21837 | 1096.15729 | -66587 | -70642 | -82488 | -54572 | -58478 | -67478 |
| 20.000 | 20.000 | 5.00000 | 1845.65546 | 235.66004 | 1093.56639 | -66289 | -71092 | -81705 | -55675 | -59434 | -68619 |
| 22.000 | 22.000 | 5.00000 | 1847.52986 | 236.89368 | 1094.65019 | -67522 | -72593 | -83027 | -56883 | -60864 | -68940 |
| 24.000 | 24.000 | 5.00000 | 1848.52892 | 236.04575 | 1095.35625 | -70142 | -75981 | -86013 | -58033 | -63601 | -71328 |
| GRADIENT | | .00000 | -86814 | -10579 | -49081 | .08649 | .01136 | .01028 | .00360 | .00692 | .00571 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|---------|------------|-----------|------------|----------|----------|----------|--------|--------|----------|
| 2.250 | .000 | 5.00000 | 2058.36677 | 178.11419 | 1069.00858 | -1.05235 | -1.20114 | -1.42047 | -85426 | -96192 | -1.11543 |
| 2.000 | 2.000 | 5.00000 | 2058.48529 | 178.03863 | 1068.55612 | -1.02588 | -1.16478 | -1.38736 | -83829 | -94001 | -1.09785 |
| 4.000 | 4.000 | 5.00000 | 2058.33249 | 178.11115 | 1068.98139 | -1.00660 | -1.13828 | -1.36902 | -82300 | -92326 | -1.08122 |
| 6.000 | 6.000 | 5.00000 | 2058.43581 | 178.12163 | 1069.05426 | -1.00130 | -1.11543 | -1.33168 | -82330 | -90630 | -1.06373 |
| 8.000 | 8.000 | 5.00000 | 2058.44626 | 178.03483 | 1068.53333 | -98197 | -1.09322 | -1.29189 | -81121 | -89446 | -1.03699 |
| 10.000 | 10.000 | 5.00000 | 2059.21468 | 178.10055 | 1068.93778 | -96630 | -1.06411 | -1.23644 | -80084 | -87487 | -1.00113 |
| 12.000 | 12.000 | 5.00000 | 2058.72852 | 178.05887 | 1068.67758 | -95806 | -1.05119 | -1.21889 | -79524 | -86586 | -98300 |
| 14.000 | 14.000 | 5.00000 | 2058.33539 | 178.02506 | 1068.47466 | -95452 | -1.05722 | -1.21586 | -79244 | -86594 | -98780 |
| 16.000 | 16.000 | 5.00000 | 2059.73508 | 178.14466 | 1069.19247 | -96599 | -1.05912 | -1.25939 | -80651 | -86994 | -1.02524 |
| 18.000 | 18.000 | 5.00000 | 2058.78250 | 178.06276 | 1068.70993 | -96357 | -1.06528 | -1.26549 | -82237 | -88479 | -1.03400 |
| 20.000 | 20.000 | 5.00000 | 2058.53272 | 178.13587 | 1069.13972 | -1.01861 | -1.10361 | -1.20893 | -84642 | -91061 | -1.04826 |
| 22.000 | 22.000 | 5.00000 | 2058.95165 | 178.07758 | 1068.78992 | -1.02889 | -1.11891 | -1.13080 | -86144 | -93010 | -1.07174 |
| 24.000 | 24.000 | 5.00000 | 2058.71259 | 178.05685 | 1068.66547 | -1.08933 | -1.17618 | -1.35765 | -86144 | -92930 | -1.11428 |
| GRADIENT | | .00000 | -00907 | -00076 | -00458 | .01144 | .01512 | .01536 | .00705 | .00967 | .00855 |

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OF POOR QUALITY.

TABLATED DATA - 0A161 (ARC 11-97-87-084)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(EE7607) (02 AUG 76)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BRP = 936.8000 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 5.000 ELEVON = .000
 ALLRON = .000 BOFLAP = -7.170

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | GCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 2.500 | .080 | 5.00000 | 1487.41808 | 86.98371 | 654.65117 | -1.54923 | -1.77133 | -2.18128 | -1.26060 | -1.41831 | -1.68333 |
| 2.000 | 2.000 | 5.00000 | 1487.53204 | 86.98042 | 654.70170 | -1.51474 | -1.73079 | -2.10985 | -1.23742 | -1.39202 | -1.65201 |
| 4.000 | 4.000 | 5.00000 | 1487.58736 | 86.99367 | 654.72614 | -1.49610 | -1.69102 | -2.05763 | -1.26616 | -1.36556 | -1.62060 |
| 6.000 | 6.000 | 5.00000 | 1487.58563 | 86.99354 | 654.72516 | -1.46881 | -1.65241 | -2.01266 | -1.34424 | -1.34424 | -1.59585 |
| 8.000 | 8.000 | 5.00000 | 1487.60661 | 86.99529 | 654.73832 | -1.44772 | -1.61387 | -1.95431 | -1.19917 | -1.32139 | -1.56323 |
| 10.000 | 10.000 | 5.00000 | 1487.63736 | 86.99730 | 654.75396 | -1.42661 | -1.57405 | -1.87708 | -1.18424 | -1.29328 | -1.51054 |
| 12.000 | 12.000 | 5.00000 | 1487.63515 | 86.99718 | 654.75260 | -1.41969 | -1.56402 | -1.84005 | -1.18240 | -1.26929 | -1.48868 |
| 14.000 | 14.000 | 5.00000 | 1487.64052 | 86.99771 | 654.75660 | -1.41960 | -1.54951 | -1.80948 | -1.17243 | -1.24764 | -1.47164 |
| 16.000 | 16.000 | 5.00000 | 1487.63156 | 86.99771 | 654.75660 | -1.41960 | -1.54951 | -1.80948 | -1.17243 | -1.24764 | -1.47164 |
| 18.000 | 18.000 | 5.00000 | 1487.64584 | 86.99899 | 654.76619 | -1.44796 | -1.55874 | -1.79987 | -1.24326 | -1.28277 | -1.47513 |
| 20.000 | 20.000 | 5.00000 | 1487.60817 | 86.99642 | 654.74684 | -1.47818 | -1.59321 | -1.81461 | -1.33019 | -1.33019 | -1.49398 |
| 22.000 | 22.000 | 5.00000 | 1487.61295 | 86.99681 | 654.74979 | -1.54726 | -1.62914 | -1.85042 | -1.27928 | -1.36411 | -1.52846 |
| 24.000 | 24.000 | 5.00000 | 1487.57964 | 86.99521 | 654.73773 | -1.57858 | -1.68630 | -1.88686 | -1.32890 | -1.41025 | -1.56692 |
| GRADIENT | | | .04233 | .00249 | .01874 | .01328 | .06008 | .02591 | .08861 | .01291 | .01568 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | GCOMP | DPT011 | DPT021 | DPT031 | DPT013 | DPT023 | DPT033 |
|----------|--------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.000 | .000 | 5.00000 | 1939.46461 | 51.12282 | 566.46776 | -3.06733 | -3.62533 | -4.62446 | -2.54646 | -2.94119 | -3.60482 |
| 4.000 | 2.000 | 5.00000 | 1937.72949 | 51.07815 | 564.97363 | -3.09666 | -3.53766 | -4.53798 | -2.56222 | -2.86381 | -3.58442 |
| 6.000 | 6.000 | 5.00000 | 1938.05091 | 51.08625 | 565.06321 | -2.91775 | -3.42477 | -4.38245 | -2.44192 | -2.80701 | -3.46135 |
| 8.000 | 8.000 | 5.00000 | 1938.52211 | 51.09901 | 565.20436 | -2.88190 | -3.39373 | -4.28966 | -2.41948 | -2.75463 | -3.40373 |
| 10.000 | 10.000 | 5.00000 | 1938.14912 | 51.09524 | 565.16261 | -2.83778 | -3.25223 | -4.11557 | -2.39155 | -2.68682 | -3.29586 |
| 12.000 | 12.000 | 5.00000 | 1937.11229 | 51.09673 | 565.17573 | -2.80355 | -3.18144 | -3.97952 | -2.36911 | -2.64759 | -3.20898 |
| 14.000 | 14.000 | 5.00000 | 1937.93176 | 51.09222 | 565.24744 | -2.77847 | -3.11835 | -3.83870 | -2.34486 | -2.61717 | -3.11998 |
| 16.000 | 16.000 | 5.00000 | 1938.21223 | 51.10291 | 565.12921 | -2.76109 | -3.07755 | -3.76467 | -2.34119 | -2.58347 | -3.07724 |
| 18.000 | 18.000 | 5.00000 | 1938.80711 | 51.12403 | 565.48142 | -2.78186 | -3.06874 | -3.71278 | -2.37013 | -2.58561 | -3.05207 |
| 20.000 | 20.000 | 5.00000 | 1938.64461 | 51.12433 | 565.48442 | -2.84059 | -3.09413 | -3.70965 | -2.42098 | -2.61177 | -3.08951 |
| 22.000 | 22.000 | 5.00000 | 1938.51358 | 51.11730 | 565.40564 | -2.89289 | -3.14842 | -3.70865 | -2.47284 | -2.63528 | -3.11771 |
| 24.000 | 24.000 | 5.00000 | 1938.80377 | 51.12642 | 565.50747 | -2.97771 | -3.22843 | -3.74900 | -2.54992 | -2.73528 | -3.17812 |
| GRADIENT | | | .09142 | .00914 | .03404 | .03740 | .05014 | .05883 | .02614 | .03335 | .03587 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(EE7C02) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1876.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0800 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0080 IN. Z0
 SCALE = .0300

RMSL = 1.98 GRADIENT INTERVAL = -5.004 5 00

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 ALLRON = .000 BOFLAP = -7.170

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT011 | DPT02F | DPT031 | DPT0N3 | DPT023 | DPT033 |
|-------|----------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.500 | .000 | 5.00000 | 2683.02945 | 35.14786 | 535.72283 | -5.29246 | -6.45082 | -8.55306 | -4.40628 | -5.21810 | -6.56242 |
| | 2.000 | 5.00000 | 2682.78683 | 35.14482 | 535.67736 | -5.14385 | -6.25266 | -8.35864 | -4.30363 | -5.08152 | -6.44268 |
| | 4.000 | 5.00000 | 2680.96332 | 35.12155 | 535.32265 | -5.00869 | -6.07736 | -8.06709 | -4.21211 | -4.97024 | -6.27606 |
| | 6.000 | 5.00000 | 2682.66058 | 35.14306 | 535.66033 | -4.93483 | -5.86676 | -7.85698 | -4.16391 | -4.83173 | -6.15604 |
| | 8.000 | 5.00000 | 2680.66055 | 35.11761 | 535.26256 | -4.93483 | -5.62143 | -7.64776 | -4.10040 | -4.69991 | -5.91494 |
| | 10.000 | 5.00000 | 2682.31409 | 35.13848 | 535.58065 | -4.79432 | -5.53498 | -7.20642 | -4.06873 | -4.60786 | -5.75330 |
| | 12.000 | 5.00000 | 2680.79922 | 35.11946 | 535.29087 | -4.76894 | -5.42946 | -6.92620 | -4.06166 | -4.54781 | -5.59834 |
| | 14.000 | 5.00000 | 2681.84268 | 35.13391 | 535.51109 | -4.75142 | -5.35479 | -6.76654 | -4.05856 | -4.54246 | -5.49886 |
| | 16.000 | 5.00000 | 2680.82974 | 35.11878 | 535.28048 | -4.76587 | -5.32537 | -6.68884 | -4.05336 | -4.49653 | -5.46886 |
| | 18.000 | 5.00000 | 2680.17957 | 35.11156 | 535.17096 | -4.89790 | -5.36904 | -6.67878 | -4.18862 | -4.55489 | -5.47395 |
| | 20.000 | 5.00000 | 2682.18320 | 35.13710 | 535.55972 | -5.00375 | -5.49677 | -6.66864 | -4.28952 | -4.65060 | -5.48865 |
| | 22.000 | 5.00000 | 2680.68203 | 35.11565 | 535.23274 | -5.15349 | -5.68931 | -6.74760 | -4.41150 | -4.80987 | -5.56840 |
| | 24.000 | 5.00000 | 2680.41901 | 35.11479 | 535.21957 | -5.34023 | -5.91089 | -6.98657 | -4.56872 | -4.99144 | -5.70614 |
| | GRADIENT | .00000 | -5.51654 | -0.08656 | -1.0005 | .07094 | .09337 | .12149 | .04854 | .05996 | .06909 |

(EE70031 (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -5.0000 ELEVON = .0000
 AIRLON = .0000 BDFLAP = -7.170

RM/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA = | BETA | PT | P | OCOMP | DPO11 | DPO2 | DPO13 | DPO23 | DPO33 |
|----------|---------|---------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 1.200 | .000 | -5.0000 | 2068.91339 | 828.82202 | 1166.58822 | 76626 | 76650 | 25071 | 25077 | 25127 |
| 2.000 | .000 | -5.0000 | 2009.58676 | 828.57557 | 1166.22134 | 79936 | 76082 | 26302 | 26318 | 26379 |
| 4.000 | .000 | -5.0000 | 2012.38299 | 828.41618 | 1167.48450 | 74356 | 74398 | 27565 | 27576 | 27639 |
| 6.000 | .000 | -5.0000 | 2007.38050 | 828.01813 | 1165.43674 | 74282 | 74332 | 28758 | 28773 | 28811 |
| 8.000 | .000 | -5.0000 | 2005.18105 | 827.76498 | 1165.08044 | 73400 | 73400 | 27848 | 27849 | 27928 |
| 10.000 | .000 | -5.0000 | 1999.63934 | 826.38300 | 1163.13528 | 72507 | 72507 | 27154 | 27165 | 27228 |
| 12.000 | .000 | -5.0000 | 2001.46516 | 826.74883 | 1163.65021 | 69804 | 69804 | 25632 | 25630 | 25681 |
| 14.000 | .000 | -5.0000 | 2001.00822 | 826.64798 | 1163.50826 | 67734 | 67734 | 23363 | 23357 | 23418 |
| 16.000 | .000 | -5.0000 | 1999.43224 | 826.30900 | 1163.03114 | 64921 | 64921 | 21296 | 21305 | 21340 |
| 18.000 | .000 | -5.0000 | 2003.10529 | 826.20448 | 1164.29153 | 59904 | 59904 | 19566 | 19560 | 19589 |
| 20.000 | .000 | -5.0000 | 2000.66002 | 826.62385 | 1163.47430 | 56327 | 56327 | 18254 | 18241 | 18289 |
| 22.000 | .000 | -5.0000 | 1996.12405 | 825.65847 | 1162.11352 | 53105 | 53105 | 16713 | 16713 | 16763 |
| 24.000 | .000 | -5.0000 | 1995.54181 | 825.41649 | 1161.77493 | 48184 | 47977 | 15120 | 15070 | 15164 |
| GRADIENT | | .00000 | .66867 | .14854 | .20908 | -.08567 | -.00563 | .00623 | .00625 | .00628 |

RM/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA = | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO13 | DPO23 | DPO33 |
|----------|---------|---------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 1.200 | .000 | -5.0000 | 1578.31139 | 400.01865 | 1042.32884 | 53631 | 54399 | 12704 | 12831 | 13085 |
| 2.000 | .000 | -5.0000 | 1578.99117 | 400.18729 | 1042.76884 | 53769 | 54628 | 13194 | 13348 | 13520 |
| 4.000 | .000 | -5.0000 | 1577.34309 | 399.78389 | 1041.71767 | 53526 | 54365 | 13658 | 13820 | 13982 |
| 6.000 | .000 | -5.0000 | 1577.34309 | 399.79176 | 1041.73790 | 51765 | 54395 | 14127 | 14270 | 14479 |
| 8.000 | .000 | -5.0000 | 1578.35884 | 400.03287 | 1042.36619 | 52387 | 53339 | 14096 | 14206 | 14480 |
| 10.000 | .000 | -5.0000 | 1575.77289 | 399.39394 | 1040.70128 | 50723 | 51265 | 14157 | 14271 | 14521 |
| 12.000 | .000 | -5.0000 | 1575.95380 | 399.36881 | 1040.63841 | 49631 | 50058 | 13977 | 14069 | 14282 |
| 14.000 | .000 | -5.0000 | 1575.97449 | 399.45256 | 1040.85485 | 48285 | 48658 | 13688 | 13795 | 13983 |
| 16.000 | .000 | -5.0000 | 1576.27609 | 399.52647 | 1041.04663 | 47094 | 47396 | 13240 | 13314 | 13504 |
| 18.000 | .000 | -5.0000 | 1575.81870 | 399.41241 | 1040.74942 | 45150 | 45430 | 12889 | 12942 | 13113 |
| 20.000 | .000 | -5.0000 | 1575.80844 | 399.41526 | 1040.75885 | 43483 | 43764 | 12888 | 12933 | 13114 |
| 22.000 | .000 | -5.0000 | 1576.42549 | 399.57412 | 1041.17079 | 41796 | 42034 | 12830 | 12883 | 13064 |
| 24.000 | .000 | -5.0000 | 1576.42549 | 399.57412 | 1041.17079 | 40014 | 40276 | 12943 | 13011 | 13064 |
| GRADIENT | | .00000 | -.24779 | -.05863 | -.15279 | -.00026 | -.00007 | .00239 | .00247 | .00247 |

TABULATED DATA - 0A161 (ARC 11-97-87-894)

ARC 11-97-87-894 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1078.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = -5.000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.378

PARAMETRIC DATA

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|-------|----------|----------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 1.750 | .000 | -5.00000 | 1843.42418 | 299.79275 | 1066.72121 | .59936 | .57184 | .60167 | .14107 | .14336 | .14872 |
| | 2.000 | -5.00000 | 1850.93587 | 310.08348 | 1057.72329 | .58473 | .56999 | .60228 | .14303 | .14591 | .15185 |
| | 4.000 | -5.00000 | 1850.24094 | 308.94633 | 1057.25003 | .56995 | .56538 | .59569 | .14747 | .15031 | .15615 |
| | 6.000 | -5.00000 | 1843.94432 | 309.89394 | 1057.06963 | .54371 | .54164 | .58191 | .15121 | .15346 | .15899 |
| | 8.000 | -5.00000 | 1850.82384 | 310.06269 | 1057.65071 | .53374 | .54174 | .56471 | .14782 | .14947 | .15415 |
| | 10.000 | -5.00000 | 1850.44762 | 309.98747 | 1057.39778 | .52974 | .52976 | .55006 | .14673 | .14816 | .15259 |
| | 12.000 | -5.00000 | 1861.41377 | 310.17471 | 1058.03642 | .51136 | .51757 | .53502 | .14788 | .14919 | .15302 |
| | 14.000 | -5.00000 | 1851.02856 | 310.09678 | 1057.75807 | .50017 | .50623 | .52127 | .14699 | .14835 | .15169 |
| | 16.000 | -5.00000 | 1850.14075 | 309.92978 | 1057.19304 | .48864 | .49438 | .50734 | .14708 | .14841 | .15138 |
| | 18.000 | -5.00000 | 1850.84294 | 310.06318 | 1057.65240 | .47462 | .48057 | .49104 | .14844 | .14988 | .15241 |
| | 20.000 | -5.00000 | 1851.38724 | 310.16493 | 1058.00276 | .45684 | .46184 | .47270 | .15141 | .15292 | .15575 |
| | 22.000 | -5.00000 | 1851.57825 | 310.20011 | 1058.12389 | .44157 | .44718 | .46013 | .14894 | .14984 | .15327 |
| | 24.000 | -5.00000 | 1851.58163 | 310.20077 | 1058.12617 | .42949 | .43525 | .44925 | .15219 | .15283 | .15778 |
| | GRADIENT | .00000 | .20419 | .03840 | .13221 | -.00210 | -.00164 | -.00149 | .00160 | .00174 | .00186 |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|-------|----------|----------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 2.000 | .000 | -5.00000 | 1847.06216 | 235.97866 | 1095.04305 | .48775 | .50494 | .54749 | .12287 | .12611 | .13389 |
| | 2.000 | -5.00000 | 1848.06623 | 236.10478 | 1095.63014 | .47691 | .49446 | .54480 | .12573 | .12922 | .13682 |
| | 4.000 | -5.00000 | 1847.42177 | 236.02850 | 1095.27618 | .47818 | .49424 | .54412 | .12713 | .13036 | .14008 |
| | 6.000 | -5.00000 | 1848.95721 | 235.96262 | 1094.97044 | .47450 | .48800 | .54976 | .12838 | .13074 | .13754 |
| | 8.000 | -5.00000 | 1848.99805 | 235.95757 | 1094.99344 | .46814 | .47907 | .50958 | .12778 | .13066 | .13605 |
| | 10.000 | -5.00000 | 1848.48546 | 235.89915 | 1094.67596 | .47691 | .47691 | .50934 | .12923 | .13140 | .13670 |
| | 12.000 | -5.00000 | 1848.51515 | 236.90250 | 1094.69148 | .46661 | .46661 | .48126 | .13077 | .13281 | .13761 |
| | 14.000 | -5.00000 | 1848.62762 | 235.91658 | 1094.75698 | .44239 | .44239 | .46144 | .13479 | .13721 | .14104 |
| | 16.000 | -5.00000 | 1848.02921 | 235.83774 | 1094.39098 | .43250 | .43250 | .44885 | .13345 | .13541 | .13918 |
| | 18.000 | -5.00000 | 1848.35066 | 235.87904 | 1094.58261 | .42338 | .42338 | .4398 | .13121 | .13320 | .13629 |
| | 20.000 | -5.00000 | 1848.86618 | 235.94551 | 1094.89108 | .41497 | .41497 | .43096 | .13218 | .13429 | .13753 |
| | 22.000 | -5.00000 | 1847.20576 | 235.98882 | 1095.09203 | .39934 | .39934 | .4219 | .13961 | .14207 | .14598 |
| | 24.000 | -5.00000 | 1846.00110 | 235.83439 | 1094.37944 | .37051 | .37874 | .38567 | .13928 | .14171 | .14628 |
| | GRADIENT | .00000 | .08890 | .01256 | .05829 | -.00239 | -.00267 | -.00284 | .00107 | .00106 | .00155 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2880.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 938.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 9.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP011 | DP021 | DP051 | DP013 | DP023 | DP033 |
|----------|-------|----------|------------|-----------|------------|--------|---------|---------|-------|-------|-------|
| 2.250 | .000 | -5.00000 | 2854.52133 | 177.43511 | 1064.93391 | 411478 | 43400 | 48809 | 10081 | 10441 | 11475 |
| 2.000 | .000 | -5.00000 | 2050.73444 | 177.36786 | 1064.52908 | 414229 | 43302 | 49032 | 10081 | 10381 | 11408 |
| 4.000 | .000 | -5.00000 | 2050.90634 | 177.38244 | 1064.61781 | 41530 | 43269 | 48666 | 10331 | 10553 | 11624 |
| 6.000 | .000 | -5.00000 | 2050.79029 | 177.36738 | 1064.52737 | 41316 | 42317 | 46458 | 10688 | 10952 | 11778 |
| 8.000 | .000 | -5.00000 | 2051.17938 | 177.40587 | 1064.75892 | 39921 | 41048 | 44458 | 10739 | 11001 | 11686 |
| 10.000 | .000 | -5.00000 | 2051.78479 | 177.45775 | 1065.06881 | 38447 | 40256 | 43331 | 10926 | 11161 | 11838 |
| 12.000 | .000 | -5.00000 | 2052.43539 | 177.51383 | 1065.40637 | 38228 | 39464 | 41920 | 11028 | 11312 | 11967 |
| 14.000 | .000 | -5.00000 | 2054.13220 | 177.65454 | 1066.25092 | 38667 | 39749 | 41827 | 11150 | 11398 | 11969 |
| 16.000 | .000 | -5.00000 | 2055.24664 | 177.75452 | 1066.85034 | 37810 | 39093 | 41105 | 11244 | 11546 | 12022 |
| 18.000 | .000 | -5.00000 | 2055.90338 | 177.81194 | 1067.19537 | 36868 | 38093 | 39866 | 11325 | 11694 | 12127 |
| 20.000 | .000 | -5.00000 | 2055.49188 | 177.77633 | 1066.98186 | 35372 | 36722 | 38229 | 11275 | 11572 | 11957 |
| 22.000 | .000 | -5.00000 | 2055.36655 | 177.76571 | 1066.91809 | 35202 | 36401 | 38142 | 11818 | 11749 | 12529 |
| 24.000 | .000 | -5.00000 | 2056.58188 | 177.86968 | 1067.54214 | 31679 | 32083 | 33983 | 09919 | 09919 | 10403 |
| GRADIENT | | .00000 | -.01317 | -.07902 | | 00028 | -.00833 | -.00031 | 00062 | 00093 | 00060 |

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|----------|-------|----------|------------|----------|-----------|---------|---------|---------|-------|-------|-------|
| 2.500 | .000 | -5.00000 | 1498.56390 | 87.64465 | 659.62592 | 40159 | 41621 | 47873 | 10818 | 11127 | 12388 |
| 2.000 | .000 | -5.00000 | 1497.87276 | 87.60338 | 658.31421 | 40336 | 41578 | 47798 | 10841 | 11124 | 12366 |
| 4.000 | .000 | -5.00000 | 1497.09436 | 87.55775 | 658.97150 | 39945 | 41177 | 46600 | 11136 | 11407 | 12561 |
| 6.000 | .000 | -5.00000 | 1497.75047 | 87.59612 | 659.26024 | 39796 | 40826 | 45650 | 11079 | 11285 | 12316 |
| 8.000 | .000 | -5.00000 | 1497.84230 | 87.60144 | 659.30032 | 39301 | 40368 | 44514 | 11313 | 11543 | 12491 |
| 10.000 | .000 | -5.00000 | 1497.81511 | 87.59991 | 659.28880 | 38789 | 39941 | 43850 | 11403 | 11654 | 12567 |
| 12.000 | .000 | -5.00000 | 1497.81754 | 87.59988 | 659.28856 | 38831 | 40122 | 43311 | 12033 | 12358 | 13017 |
| 14.000 | .000 | -5.00000 | 1497.78598 | 87.59764 | 659.27169 | 37859 | 39221 | 41870 | 12004 | 12358 | 13017 |
| 16.000 | .000 | -5.00000 | 1497.77367 | 87.59656 | 659.26370 | 37190 | 38554 | 41077 | 12024 | 12385 | 13031 |
| 18.000 | .000 | -5.00000 | 1497.77548 | 87.59658 | 659.26370 | 36391 | 37873 | 40098 | 12131 | 12385 | 13031 |
| 20.000 | .000 | -5.00000 | 1497.79367 | 87.59782 | 659.27309 | 35501 | 37063 | 39205 | 11908 | 12325 | 12914 |
| 22.000 | .000 | -5.00000 | 1497.81293 | 87.59903 | 659.28188 | 34544 | 35982 | 38063 | 11948 | 12359 | 12944 |
| 24.000 | .000 | -5.00000 | 1497.82393 | 87.59926 | 659.28388 | 33727 | 35043 | 36996 | 12298 | 12694 | 13284 |
| GRADIENT | | .00000 | -.36739 | -.02172 | -.16350 | -.00054 | -.00111 | -.00318 | 00079 | 00070 | 00241 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8800 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | OCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|--------------|----------|----------|------------|----------|-----------|---------|---------|---------|--------|---------|---------|
| | .000 | -5.00000 | 1935.56339 | 51.10074 | 565.22348 | .35326 | .36582 | .45152 | .09793 | .10100 | .11896 |
| | 2.000 | -5.00000 | 1985.15036 | 51.09178 | 565.12438 | .35003 | .36274 | .44008 | .09743 | .10029 | .11687 |
| | 4.000 | -5.00000 | 1936.07675 | 51.11307 | 565.35988 | .34801 | .35977 | .42782 | .09815 | .10084 | .11528 |
| | 6.000 | -5.00000 | 1936.50783 | 51.12482 | 565.48977 | .34601 | .35747 | .41742 | .09704 | .09965 | .11276 |
| | 8.000 | -5.00000 | 1986.47981 | 51.12357 | 565.47600 | .34260 | .35175 | .40460 | .09801 | .10086 | .11206 |
| | 10.000 | -5.00000 | 1936.30977 | 51.12127 | 565.45056 | .33730 | .35175 | .39809 | .10055 | .10407 | .11590 |
| | 12.000 | -5.00000 | 1936.00462 | 51.11145 | 565.34191 | .33234 | .34966 | .39017 | .10168 | .10503 | .11740 |
| | 14.000 | -5.00000 | 1935.75789 | 51.09733 | 565.18674 | .32825 | .34741 | .38247 | .10367 | .10854 | .11801 |
| | 16.000 | -5.00000 | 1935.34929 | 51.08156 | 565.01133 | .32238 | .34313 | .37542 | .10409 | .10963 | .11740 |
| | 18.000 | -5.00000 | 1935.29300 | 51.07934 | 564.98677 | .31376 | .33947 | .36697 | .10311 | .10803 | .12013 |
| | 20.000 | -5.00000 | 1934.35158 | 51.05967 | 564.76923 | .30808 | .32945 | .36101 | .11133 | .11156 | .12057 |
| | 22.000 | -5.00000 | 1934.81860 | 51.07553 | 564.94459 | .30038 | .32054 | .35224 | .10557 | .11156 | .12017 |
| | 24.000 | -5.00000 | 1934.05580 | 51.04761 | 564.63582 | .29463 | .31342 | .34304 | .11139 | .11139 | .12017 |
| | GRADIENT | .00000 | .12834 | .00308 | .03410 | -.00131 | -.00179 | -.00512 | .00005 | -.00004 | -.00064 |

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|--------------|----------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| | .000 | -5.00000 | 2547.37308 | 33.36888 | 508.6084C | .34091 | .35756 | .46652 | .09417 | .09789 | .12068 |
| | 2.000 | -5.00000 | 2547.81790 | 33.37489 | 508.7000C | .33621 | .35236 | .44987 | .09413 | .09780 | .11868 |
| | 4.000 | -5.00000 | 2546.94196 | 33.36394 | 508.53317 | .33242 | .34852 | .43233 | .09364 | .09733 | .11556 |
| | 6.000 | -5.00000 | 2547.59006 | 33.37128 | 508.64510 | .33206 | .34923 | .42286 | .09582 | .09986 | .11638 |
| | 8.000 | -5.00000 | 2547.17203 | 33.36708 | 508.58098 | .32746 | .34607 | .40922 | .09488 | .09928 | .11350 |
| | 10.000 | -5.00000 | 2551.36157 | 33.42099 | 508.40276 | .32306 | .34505 | .40345 | .09629 | .10166 | .11534 |
| | 12.000 | -5.00000 | 2555.54724 | 33.47640 | 510.24735 | .31833 | .34197 | .39168 | .09546 | .10234 | .11426 |
| | 14.000 | -5.00000 | 2558.82321 | 33.51909 | 510.88791 | .31333 | .33825 | .38104 | .09654 | .10536 | .11614 |
| | 16.000 | -5.00000 | 2563.66443 | 33.58292 | 511.87092 | .30633 | .32915 | .37154 | .09954 | .10711 | .11809 |
| | 18.000 | -5.00000 | 2572.38071 | 33.63452 | 512.67409 | .30058 | .32915 | .36905 | .10020 | .10813 | .11950 |
| | 20.000 | -5.00000 | 2578.10111 | 33.65739 | 513.61562 | .29922 | .31683 | .35905 | .09859 | .10613 | .11782 |
| | 22.000 | -5.00000 | 2578.11011 | 33.77192 | 514.75153 | .28739 | .31311 | .35463 | .10203 | .10975 | .12180 |
| | 24.000 | -5.00000 | 2578.93777 | 33.79332 | 514.96529 | .27965 | .30356 | .34299 | .09913 | .10533 | .11782 |
| | GRADIENT | .00000 | -.10779 | -.00123 | -.01880 | -.00212 | -.00266 | -.00854 | -.00014 | -.00014 | -.00128 |

(EE7004) 1 02 AUG 75)

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA16: ORBITER + RAKES

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AIRLON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 3.00

| MACH = 1.550 | ALPHA | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPQ31 | CPQ13 | DPQ23 | DPQ33 |
|--------------|----------|----------|------------|-----------|------------|---------|---------|---------|-------|-------|-------|
| | .000 | -2.00000 | 1574.43616 | 398.83030 | 1039.23260 | 45837 | 46447 | 47320 | 09105 | 09190 | 09353 |
| | 2.000 | -2.00000 | 1573.92516 | 398.70513 | 1038.98645 | 46062 | 46894 | 47569 | 09711 | 09642 | 09960 |
| | 4.000 | -2.00000 | 1573.05887 | 398.48754 | 1038.33949 | 45593 | 46356 | 47032 | 10157 | 10265 | 10396 |
| | 6.000 | -2.00000 | 1573.57761 | 398.62070 | 1038.68646 | 44630 | 45269 | 46021 | 10369 | 10482 | 10614 |
| | 8.000 | -2.00000 | 1574.31830 | 398.81203 | 1039.18500 | 43214 | 43690 | 44713 | 10269 | 10376 | 10561 |
| | 10.000 | -2.00000 | 1574.64066 | 398.88485 | 1039.37476 | 42301 | 42719 | 43625 | 10237 | 10315 | 10483 |
| | 12.000 | -2.00000 | 1574.84332 | 398.93706 | 1039.51079 | 41367 | 41703 | 42489 | 09999 | 10063 | 10209 |
| | 14.000 | -2.00000 | 1574.99084 | 398.87534 | 1039.34998 | 40157 | 40463 | 41103 | 09664 | 09721 | 09841 |
| | 16.000 | -2.00000 | 1575.31898 | 399.06065 | 1039.83284 | 38840 | 39036 | 39655 | 09162 | 09202 | 09313 |
| | 18.000 | -2.00000 | 1575.34929 | 399.06559 | 1039.84596 | 37186 | 37443 | 38027 | 08997 | 09047 | 09157 |
| | 20.000 | -2.00000 | 1574.16409 | 398.76549 | 1039.06374 | 35647 | 35952 | 36469 | 09537 | 09603 | 09714 |
| | 22.000 | -2.00000 | 1574.15891 | 398.76766 | 1039.06938 | 34720 | 35005 | 35378 | 09226 | 09287 | 09367 |
| | 24.000 | -2.00000 | 1574.84804 | 398.94400 | 1039.52890 | 33241 | 33502 | 33847 | 08538 | 08592 | 08664 |
| | GRADIENT | .00000 | -.34433 | -.08569 | -.22328 | -.00061 | -.00013 | -.00125 | 00263 | 00274 | 00261 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | ALPHA | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPQ31 | CPQ13 | DPQ23 | DPQ33 |
|--------------|----------|----------|------------|-----------|------------|---------|---------|---------|-------|-------|-------|
| | .000 | -2.00000 | 1650.91153 | 310.07685 | 1067.69946 | 47224 | 48366 | 50880 | 10769 | 10964 | 11385 |
| | 2.000 | -2.00000 | 1652.84775 | 310.44413 | 1068.96416 | 46554 | 47864 | 50529 | 10975 | 11232 | 11713 |
| | 4.000 | -2.00000 | 1653.85585 | 310.63168 | 1069.60992 | 46159 | 47796 | 50603 | 11074 | 11295 | 11787 |
| | 6.000 | -2.00000 | 1654.30829 | 310.72412 | 1069.92824 | 45068 | 47001 | 49286 | 11282 | 11438 | 11855 |
| | 8.000 | -2.00000 | 1653.79941 | 310.62094 | 1069.57295 | 43830 | 45885 | 47833 | 11302 | 11458 | 11826 |
| | 10.000 | -2.00000 | 1654.31114 | 310.72391 | 1069.92749 | 42524 | 44495 | 46120 | 11146 | 11272 | 11592 |
| | 12.000 | -2.00000 | 1655.30827 | 310.90964 | 1070.56705 | 41516 | 43117 | 44409 | 11125 | 11245 | 11505 |
| | 14.000 | -2.00000 | 1655.65390 | 310.97398 | 1070.78859 | 40555 | 42005 | 43187 | 10900 | 11001 | 11241 |
| | 16.000 | -2.00000 | 1654.93356 | 310.83946 | 1070.32539 | 39830 | 41024 | 41949 | 10654 | 10751 | 10940 |
| | 18.000 | -2.00000 | 1655.58514 | 310.95767 | 1070.76688 | 39352 | 39830 | 40760 | 10736 | 10839 | 11039 |
| | 20.000 | -2.00000 | 1657.05319 | 311.24283 | 1071.71434 | 38410 | 39514 | 39514 | 10862 | 10993 | 11244 |
| | 22.000 | -2.00000 | 1657.68335 | 311.35872 | 1072.11337 | 36218 | 36769 | 37975 | 10769 | 10901 | 11190 |
| | 24.000 | -2.00000 | 1657.51363 | 311.32766 | 1072.00642 | 34857 | 35305 | 36528 | 10244 | 10352 | 10642 |
| | GRADIENT | .00000 | .13871 | .47761 | -.00165 | -.00165 | -.00142 | -.00069 | 00076 | 00083 | 00101 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 479.8800 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0080 IN. Z0
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 AILERON = .000 BDFLAP = -7.470

PARAMETRIC DATA

RM/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP021 | DP031 | DP013 | DP023 | DP033 |
|----------|--------|----------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 2.000 | .000 | -2.00000 | 1846.93443 | 235.90358 | 1094.69649 | .44726 | .48462 | .08912 | .09196 | .09784 |
| 2.000 | 2.000 | -2.00000 | 1846.41615 | 235.83478 | 1094.37123 | .44256 | .48366 | .09469 | .09443 | .10094 |
| 4.000 | 4.000 | -2.00000 | 1846.47842 | 235.84348 | 1094.41763 | .43543 | .47572 | .09378 | .09626 | .10291 |
| 6.000 | 6.000 | -2.00000 | 1847.01898 | 235.91540 | 1094.75133 | .42485 | .45628 | .09542 | .09797 | .10347 |
| 8.000 | 8.000 | -2.00000 | 1846.99898 | 235.91268 | 1094.73875 | .41060 | .44205 | .09473 | .09723 | .10163 |
| 10.000 | 10.000 | -2.00000 | 1846.95899 | 235.86971 | 1094.73189 | .41733 | .44298 | .09417 | .09623 | .10010 |
| 12.000 | 12.000 | -2.00000 | 1846.64996 | 235.86971 | 1094.53854 | .40161 | .42105 | .09417 | .09847 | .10217 |
| 14.000 | 14.000 | -2.00000 | 1846.59160 | 235.85966 | 1094.49669 | .38759 | .40335 | .09784 | .09970 | .10289 |
| 16.000 | 16.000 | -2.00000 | 1847.17949 | 235.94152 | 1094.67184 | .36950 | .38234 | .09784 | .09964 | .10240 |
| 18.000 | 18.000 | -2.00000 | 1846.84877 | 235.89649 | 1094.66362 | .35418 | .37545 | .09752 | .09917 | .10163 |
| 20.000 | 20.000 | -2.00000 | 1846.81461 | 235.88847 | 1094.62637 | .35021 | .36911 | .09544 | .09723 | .10070 |
| 22.000 | 22.000 | -2.00000 | 1847.35641 | 235.95847 | 1094.95123 | .34164 | .35911 | .09286 | .09479 | .09870 |
| 24.000 | 24.000 | -2.00000 | 1846.02896 | 235.78710 | 1094.15699 | .32179 | .33848 | .09032 | .09206 | .09621 |
| GRADIENT | | .00000 | -.11399 | -.01502 | -.06971 | -.00295 | -.00222 | .00114 | .00407 | .00132 |

RM/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP021 | DP031 | DP013 | DP023 | DP033 |
|----------|--------|----------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 2.250 | .000 | -2.00000 | 2060.32037 | 178.19294 | 1069.48226 | .35187 | .39697 | .06470 | .06786 | .07433 |
| 2.000 | 2.000 | -2.00000 | 2059.98480 | 178.18426 | 1069.34013 | .34663 | .38848 | .06685 | .06976 | .07628 |
| 4.000 | 4.000 | -2.00000 | 2059.56003 | 178.12785 | 1069.09164 | .34291 | .38291 | .06707 | .06977 | .07599 |
| 6.000 | 6.000 | -2.00000 | 2060.01712 | 178.16692 | 1069.32610 | .34253 | .37684 | .06855 | .07129 | .07687 |
| 8.000 | 8.000 | -2.00000 | 2060.34888 | 178.19534 | 1069.49667 | .33653 | .36742 | .06951 | .07210 | .07730 |
| 10.000 | 10.000 | -2.00000 | 2060.24548 | 178.18648 | 1069.44347 | .33053 | .35857 | .07043 | .07287 | .07776 |
| 12.000 | 12.000 | -2.00000 | 2060.24561 | 178.18653 | 1069.44377 | .32490 | .34823 | .07179 | .07393 | .07817 |
| 14.000 | 14.000 | -2.00000 | 2060.56393 | 178.24377 | 1069.56143 | .32313 | .34297 | .07398 | .07607 | .07975 |
| 16.000 | 16.000 | -2.00000 | 2060.05616 | 178.16844 | 1069.68732 | .32400 | .34240 | .07435 | .07636 | .07975 |
| 18.000 | 18.000 | -2.00000 | 2060.05616 | 178.16844 | 1069.33274 | .32132 | .32132 | .07386 | .07577 | .07884 |
| 20.000 | 20.000 | -2.00000 | 2060.44946 | 178.20315 | 1069.54353 | .31334 | .31334 | .07783 | .07984 | .08352 |
| 22.000 | 22.000 | -2.00000 | 2060.15353 | 178.17854 | 1069.39588 | .30424 | .30424 | .08311 | .08485 | .08843 |
| 24.000 | 24.000 | -2.00000 | 2060.04486 | 178.16828 | 1069.34026 | .30243 | .30243 | .12624 | .13003 | .13850 |
| GRADIENT | | .00000 | -.19008 | -.01627 | -.09767 | -.00208 | -.00351 | .00059 | .00053 | .00042 |

(EET00N) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES.

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. X0
 LREF = 474.8880 IN. YMRP = .0000 IN. Y0
 BRP = 938.6880 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0380

BETA = -2.0000 ELEVON = .000
 ALFRON = .000 EDFLAP = -7.170

RNVL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|-------|----------|----------|------------|----------|-----------|---------|---------|---------|--------|--------|--------|
| 2.500 | 0.000 | -2.00000 | 1497.77222 | 87.58769 | 659.27209 | 36163 | 38522 | 45270 | 08189 | 08687 | 09746 |
| | 2.000 | -2.00000 | 1497.76450 | 87.59732 | 659.26928 | 36084 | 38354 | 44779 | 08432 | 08649 | 09875 |
| | 4.000 | -2.00000 | 1497.76714 | 87.59741 | 659.27001 | 35699 | 37825 | 43624 | 08481 | 08880 | 09922 |
| | 6.000 | -2.00000 | 1497.74226 | 87.59619 | 659.26081 | 35268 | 37158 | 42793 | 08558 | 09027 | 09973 |
| | 8.000 | -2.00000 | 1497.75372 | 87.59682 | 659.26957 | 34876 | 36591 | 41178 | 08633 | 08972 | 09847 |
| | 10.000 | -2.00000 | 1497.67010 | 87.59167 | 659.26676 | 34375 | 35972 | 40176 | 08964 | 09298 | 10152 |
| | 12.000 | -2.00000 | 1498.01534 | 87.61195 | 659.37941 | 34272 | 35696 | 39146 | 08968 | 09257 | 09965 |
| | 14.000 | -2.00000 | 1494.68498 | 87.41497 | 657.89693 | 33776 | 35130 | 37984 | 09082 | 09377 | 09984 |
| | 16.000 | -2.00000 | 1494.60895 | 87.41100 | 657.86705 | 33281 | 34456 | 37082 | 09243 | 09582 | 10146 |
| | 18.000 | -2.00000 | 1495.08078 | 87.43912 | 658.07867 | 32445 | 3410 | 36012 | 09243 | 09634 | 10066 |
| | 20.000 | -2.00000 | 1494.25999 | 87.38984 | 657.70778 | 31582 | 34956 | 34956 | 09165 | 09459 | 09963 |
| | 22.000 | -2.00000 | 1494.70457 | 87.41660 | 657.98915 | 31036 | 32241 | 34189 | 08998 | 09287 | 09746 |
| | 24.000 | -2.00000 | 1494.94550 | 87.43092 | 658.01747 | 29911 | 31000 | 32963 | 09012 | 09285 | 09771 |
| | GRADIENT | .00000 | -.00127 | -.5007 | -.08052 | -.08117 | -.08174 | -.00411 | .00073 | .08063 | .00044 |

RNVL = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|-------|----------|----------|------------|----------|-----------|---------|---------|---------|--------|--------|--------|
| 3.000 | 0.000 | -2.00000 | 1942.79845 | 51.29698 | 567.38300 | 30659 | 33648 | 42758 | 07349 | 07686 | 09526 |
| | 2.000 | -2.00000 | 1939.95528 | 51.22303 | 566.57606 | 30488 | 33107 | 41464 | 07327 | 07657 | 09366 |
| | 4.000 | -2.00000 | 1937.29540 | 51.15163 | 566.78629 | 30625 | 33127 | 40973 | 07670 | 08179 | 09687 |
| | 6.000 | -2.00000 | 1932.01018 | 51.02706 | 564.33104 | 30233 | 32477 | 38846 | 07540 | 07996 | 09229 |
| | 8.000 | -2.00000 | 1931.75623 | 51.01216 | 564.24371 | 30255 | 32289 | 38307 | 07874 | 08307 | 09533 |
| | 10.000 | -2.00000 | 1932.19610 | 51.02143 | 564.34621 | 29836 | 31686 | 37116 | 07865 | 08253 | 09391 |
| | 12.000 | -2.00000 | 1932.51784 | 51.02796 | 564.41837 | 29385 | 31453 | 36122 | 08173 | 08522 | 09540 |
| | 14.000 | -2.00000 | 1931.30788 | 50.98664 | 563.96038 | 29468 | 31032 | 34802 | 08122 | 08478 | 09614 |
| | 16.000 | -2.00000 | 1932.10713 | 51.00635 | 564.17945 | 28797 | 30388 | 33679 | 08034 | 08346 | 09446 |
| | 18.000 | -2.00000 | 1931.43526 | 50.99056 | 564.06479 | 28115 | 29282 | 32404 | 08154 | 08552 | 09417 |
| | 20.000 | -2.00000 | 1931.86768 | 50.93784 | 564.08523 | 27633 | 28240 | 31715 | 08014 | 08415 | 09217 |
| | 22.000 | -2.00000 | 1932.01346 | 51.00587 | 564.17412 | 27304 | 26949 | 31715 | 08128 | 08541 | 09217 |
| | 24.000 | -2.00000 | 1931.72012 | 50.99929 | 564.10132 | 26918 | 26496 | 31083 | 08197 | 08682 | 09254 |
| | GRADIENT | .00000 | -1.38574 | -.03609 | -.38918 | -.00056 | -.00128 | -.00446 | .00080 | .08073 | .00040 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(EE7004) (02 AUG 78)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RNWL = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPOM3 | DPQ23 | DPQ33 |
|-------|----------|----------|------------|----------|-----------|---------|---------|---------|--------|--------|---------|
| 3.500 | .000 | -2.00000 | 2608.07135 | 34.16512 | 520.74471 | .28447 | .31744 | .43393 | .06997 | .07660 | .09033 |
| | 2.000 | -2.00000 | 2609.47937 | 34.18432 | 521.03742 | .28327 | .31285 | .42206 | .06972 | .07569 | .09605 |
| | 4.000 | -2.00000 | 2610.52889 | 34.19799 | 521.24570 | .28378 | .31001 | .40730 | .07196 | .07743 | .09636 |
| | 6.000 | -2.00000 | 2614.11072 | 34.24500 | 521.96236 | .28124 | .30521 | .38363 | .07138 | .07640 | .09189 |
| | 8.000 | -2.00000 | 2614.27728 | 34.24722 | 521.99606 | .28027 | .30109 | .37582 | .07256 | .07702 | .09204 |
| | 10.000 | -2.00000 | 2619.19557 | 34.31230 | 522.98805 | .27951 | .29623 | .36450 | .07265 | .07667 | .09020 |
| | 12.000 | -2.00000 | 2615.71823 | 34.26563 | 522.27669 | .27626 | .29275 | .34769 | .07444 | .07836 | .09000 |
| | 14.000 | -2.00000 | 2617.88397 | 34.29432 | 522.71407 | .27326 | .29155 | .33271 | .07489 | .07909 | .08917 |
| | 16.000 | -2.00000 | 2615.78174 | 34.26626 | 522.28640 | .27223 | .29198 | .33271 | .07748 | .08219 | .09158 |
| | 18.000 | -2.00000 | 2617.10403 | 34.28431 | 522.56139 | .26692 | .28767 | .32602 | .07857 | .08371 | .09291 |
| | 20.000 | -2.00000 | 2615.61575 | 34.26406 | 522.25275 | .26180 | .28298 | .31978 | .07758 | .08288 | .09179 |
| | 22.000 | -2.00000 | 2619.49899 | 34.31592 | 523.04321 | .25792 | .27873 | .31452 | .07802 | .08335 | .09225 |
| | 24.000 | -2.00000 | 2624.04566 | 34.37497 | 523.94328 | .25498 | .27585 | .30938 | .07895 | .08347 | .09193 |
| | GRADIENT | .08000 | .61442 | .00822 | .12524 | -.00017 | -.00186 | -.00666 | .00050 | .00021 | -.00044 |

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REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.5800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.8800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPQ31 | DPQ13 | DPQ23 | DPQ33 |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | .00000 | 2636.13434 | 2067.16983 | 568.96451 | .12711 | .12104 | .12123 | -.10941 | -.10936 | -.10930 |
| 2.000 | .000 | .00000 | 2636.45282 | 2057.42532 | 569.02750 | .12659 | .12659 | .12662 | -.09834 | -.09835 | -.08836 |
| 4.000 | .000 | .00000 | 2638.35844 | 2058.84036 | 569.52808 | .12534 | .12349 | .12556 | -.09590 | -.09586 | -.09590 |
| 6.000 | .000 | .00000 | 2635.83572 | 2067.04514 | 568.79059 | .13950 | .13937 | .13917 | -.08520 | -.08520 | -.08510 |
| 8.000 | .000 | .00000 | 2636.20016 | 2067.24875 | 568.95142 | .12889 | .12905 | .12888 | -.08812 | -.08821 | -.08817 |
| 10.000 | .000 | .00000 | 2635.92494 | 2067.10458 | 568.83636 | .11373 | .11355 | .11368 | -.08750 | -.08739 | -.08760 |
| 12.000 | .000 | .00000 | 2635.46613 | 2066.78952 | 568.67661 | .10157 | .10161 | .10156 | -.09187 | -.09190 | -.09185 |
| 14.000 | .000 | .00000 | 2636.11768 | 2067.19876 | 568.91891 | .06774 | .06784 | .06773 | -.10042 | -.10054 | -.10040 |
| 16.000 | .000 | .00000 | 2636.08533 | 2067.16296 | 568.92236 | .03298 | .03303 | .03301 | -.10747 | -.10761 | -.10755 |
| 18.000 | .000 | .00000 | 2638.61063 | 2068.99408 | 569.61665 | -.00916 | -.00915 | -.00916 | -.12971 | -.12987 | -.12973 |
| 20.000 | .000 | .00000 | 2634.47891 | 2056.12332 | 568.35559 | -.04543 | -.04528 | -.04547 | -.14680 | -.14648 | -.14704 |
| 22.000 | .000 | .00000 | 2630.10681 | 2062.55417 | 567.55264 | -.08183 | -.08153 | -.08234 | -.16313 | -.16480 | -.16480 |
| 24.000 | .000 | .00000 | 2629.67941 | 2061.72964 | 567.94977 | -.13083 | -.13087 | -.13256 | -.18943 | -.18827 | -.19162 |
| GRADIENT | | | .55853 | .41762 | .14889 | .00111 | .00111 | .00108 | .00238 | .00237 | .00240 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPQ31 | DPQ13 | DPQ23 | DPQ33 |
|----------|-------|--------|------------|------------|-----------|--------|--------|--------|---------|---------|---------|
| .900 | .000 | .00000 | 2113.98108 | 1249.92923 | 864.05185 | .31325 | .31282 | .31292 | -.02250 | -.02248 | -.02248 |
| 2.000 | .000 | .00000 | 2112.05286 | 1248.77386 | 863.27859 | .32934 | .32941 | .32927 | .00195 | .00195 | .00195 |
| 4.000 | .000 | .00000 | 2118.18839 | 1252.35219 | 865.83621 | .32089 | .32149 | .32149 | .00956 | .00958 | .00958 |
| 6.000 | .000 | .00000 | 2114.64374 | 1250.29912 | 864.34464 | .32660 | .32664 | .32702 | .02749 | .02750 | .02752 |
| 8.000 | .000 | .00000 | 2110.03122 | 1247.57364 | 862.45758 | .32973 | .33054 | .33065 | .03945 | .03952 | .03953 |
| 10.000 | .000 | .00000 | 2112.73351 | 1249.11789 | 863.61572 | .30907 | .30951 | .30934 | .04224 | .04228 | .04227 |
| 12.000 | .000 | .00000 | 2114.69835 | 1250.25999 | 864.43838 | .28876 | .28863 | .28844 | .04201 | .04199 | .04197 |
| 14.000 | .000 | .00000 | 2117.13947 | 1251.72624 | 863.41324 | .25359 | .25325 | .25353 | .03832 | .03830 | .03834 |
| 16.000 | .000 | .00000 | 2116.02139 | 1251.05911 | 864.96329 | .22352 | .22228 | .22345 | .03669 | .03666 | .03668 |
| 18.000 | .000 | .00000 | 2113.29510 | 1249.47339 | 863.82172 | .19148 | .19115 | .19123 | .02584 | .02581 | .02588 |
| 20.000 | .000 | .00000 | 2111.35150 | 1248.25099 | 863.10092 | .15397 | .15361 | .15394 | .00853 | .00852 | .00853 |
| 22.000 | .000 | .00000 | 2110.78241 | 1247.85742 | 862.92499 | .10918 | .10681 | .10842 | -.00884 | -.00881 | -.00886 |
| 24.000 | .000 | .00000 | 2113.14288 | 1249.38358 | 863.75931 | .05868 | .05827 | .05900 | -.03029 | -.03014 | -.03049 |
| GRADIENT | | | 1.05184 | .60574 | .44609 | .00191 | .00217 | .00214 | .00802 | .00801 | .00801 |

(EE7905) (02 AUG)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-03A)

ARC 11-97-87-03A 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP011 | DP021 | DP013 | DP023 | DP033 |
|-------|----------|--------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 1.200 | .090 | .00000 | 2003.78401 | 828.63679 | 1166.39751 | .50801 | .50812 | .16349 | .16352 | .16369 |
| | 2.080 | .00000 | 2006.95002 | 827.95351 | 1165.34581 | .50018 | .50073 | .17855 | .17870 | .17901 |
| | 4.000 | .00000 | 2008.95390 | 827.74980 | 1165.05922 | .50032 | .50101 | .19732 | .19754 | .19782 |
| | 6.000 | .00000 | 2012.21327 | 829.46896 | 1167.47879 | .48782 | .48826 | .19512 | .19526 | .19560 |
| | 8.000 | .00000 | 2011.69602 | 829.32592 | 1167.27747 | .48401 | .48372 | .19733 | .19723 | .19747 |
| | 10.000 | .00000 | 2012.05740 | 829.42208 | 1167.41281 | .46949 | .46836 | .17943 | .17927 | .17962 |
| | 12.000 | .00000 | 2012.68660 | 829.63939 | 1167.71867 | .45503 | .45507 | .14059 | .14059 | .14074 |
| | 14.000 | .00000 | 2012.78661 | 829.69245 | 1167.79337 | .44234 | .44231 | .12068 | .12068 | .12083 |
| | 16.000 | .00000 | 2011.04118 | 829.14474 | 1167.02246 | .41001 | .41022 | .11013 | .11013 | .11030 |
| | 18.000 | .00000 | 2012.20530 | 829.51370 | 1167.54176 | .36907 | .36874 | .08990 | .08984 | .08997 |
| | 20.000 | .00000 | 2018.50417 | 831.53033 | 1170.30017 | .33589 | .33535 | .07480 | .07470 | .07487 |
| | 22.000 | .00000 | 2017.54966 | 831.40863 | 1170.20888 | .30402 | .30327 | .05947 | .05935 | .05954 |
| | 24.000 | .00000 | 2014.63448 | 830.32520 | 1169.68396 | .27004 | .26893 | .03488 | .03476 | .03493 |
| | GRADIENT | .00000 | -.70766 | -.22172 | -.31207 | -.00192 | -.00178 | .00846 | .00851 | .00853 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP011 | DP021 | DP013 | DP023 | DP033 |
|-------|----------|--------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 1.400 | .080 | .00000 | 2043.25790 | 642.23148 | 1316.08347 | .51310 | .51907 | .11600 | .11669 | .11710 |
| | 2.080 | .00000 | 2048.25000 | 643.57806 | 1318.84294 | .49199 | .49630 | .12358 | .12439 | .12433 |
| | 4.080 | .00000 | 2046.36710 | 643.02779 | 1317.71530 | .49141 | .49483 | .12472 | .12538 | .12548 |
| | 6.080 | .00000 | 2036.68442 | 640.56650 | 1312.67154 | .48784 | .48268 | .12837 | .12933 | .12968 |
| | 8.080 | .00000 | 2036.48167 | 640.58681 | 1312.71315 | .47565 | .47897 | .12416 | .12482 | .12562 |
| | 10.000 | .00000 | 2037.06390 | 640.77697 | 1313.10286 | .46225 | .46549 | .11927 | .11991 | .12000 |
| | 12.000 | .00000 | 2032.87712 | 639.62427 | 1310.74869 | .44802 | .45179 | .11569 | .11643 | .11646 |
| | 14.000 | .00000 | 2034.53185 | 640.07636 | 1311.66714 | .44624 | .44953 | .10900 | .10963 | .10950 |
| | 16.000 | .00000 | 2038.71129 | 641.14881 | 1313.86484 | .42731 | .42717 | .10290 | .10345 | .10333 |
| | 18.000 | .00000 | 2034.88271 | 640.10445 | 1311.72469 | .39127 | .39437 | .09510 | .09554 | .09505 |
| | 20.000 | .00000 | 2029.02078 | 638.64844 | 1308.74098 | .37583 | .37583 | .08617 | .08564 | .08605 |
| | 22.000 | .00000 | 2029.79141 | 638.90320 | 1309.26305 | .34658 | .34658 | .07745 | .07787 | .07790 |
| | 24.000 | .00000 | 2028.09665 | 639.46732 | 1308.36984 | .32682 | .32682 | .07303 | .07338 | .07339 |
| | GRADIENT | .00000 | .77729 | .19908 | .40796 | -.00542 | -.00606 | .00818 | .00210 | .00209 |

(EE7B06) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-894)

ARC 11-97-87-894 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALFIRON = .000 EDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0398

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.550 | BETA | PT | P | QCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|--------------|------------|-----------|------------|-------|--------|--------|--------|--------|--------|--------|
| .0000 | 1580.54596 | 401.10618 | 1045.16287 | | .40933 | .40935 | .41872 | .07057 | .07124 | .07247 |
| .0000 | 1581.96228 | 401.46997 | 1046.11082 | | .41143 | .41143 | .41666 | .07525 | .07642 | .07715 |
| .0000 | 1581.60306 | 401.36976 | 1045.84969 | | .40941 | .40941 | .41523 | .07587 | .07694 | .07777 |
| .0000 | 1581.71835 | 401.39628 | 1045.91879 | | .39392 | .39391 | .40675 | .08029 | .08113 | .08230 |
| .0000 | 1582.28792 | 401.54744 | 1046.31267 | | .38140 | .38140 | .39388 | .07877 | .07943 | .08077 |
| .0000 | 1584.01578 | 401.96475 | 1047.40005 | | .37776 | .37776 | .38931 | .07876 | .07931 | .08063 |
| .0000 | 1584.74577 | 402.14309 | 1047.86478 | | .37038 | .37038 | .38053 | .07744 | .07799 | .07910 |
| .0000 | 1584.30294 | 402.03289 | 1047.57710 | | .35941 | .35941 | .36542 | .07481 | .07548 | .07698 |
| .0000 | 1584.53708 | 402.09357 | 1047.73672 | | .34362 | .34362 | .35100 | .07127 | .07168 | .07249 |
| .0000 | 1585.24020 | 402.26379 | 1048.17926 | | .32746 | .32746 | .33684 | .07155 | .07213 | .07316 |
| .0000 | 1585.26917 | 402.27295 | 1048.20312 | | .32008 | .32008 | .32682 | .07285 | .07293 | .07327 |
| .0000 | 1584.67165 | 402.12355 | 1047.81364 | | .30857 | .30857 | .31388 | .06459 | .06495 | .06549 |
| .0000 | 1584.25276 | 402.01530 | 1047.53178 | | .29119 | .29119 | .29928 | .05835 | .05876 | .05967 |
| .0000 | 1584.26428 | .06590 | .17771 | | .09002 | .09002 | .00000 | .00132 | .00142 | .00133 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | BETA | PT | P | QCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|--------------|------------|-----------|------------|-------|--------|--------|--------|--------|--------|--------|
| .0000 | 1667.74608 | 311.37225 | 1072.15997 | | .42263 | .43301 | .45455 | .08384 | .08540 | .08857 |
| .0000 | 1657.99776 | 311.41864 | 1072.31970 | | .41906 | .43139 | .45444 | .09013 | .09215 | .09582 |
| .0000 | 1657.20947 | 311.27179 | 1071.81404 | | .41972 | .43113 | .45458 | .09127 | .09316 | .09658 |
| .0000 | 1666.47336 | 311.13422 | 1071.34095 | | .41524 | .42263 | .44240 | .09113 | .09237 | .09555 |
| .0000 | 1657.27675 | 311.28436 | 1071.85733 | | .40258 | .41115 | .42748 | .09390 | .09645 | .09937 |
| .0000 | 1657.32752 | 311.29292 | 1071.86681 | | .39943 | .39943 | .41362 | .09345 | .09460 | .09719 |
| .0000 | 1656.50383 | 311.14008 | 1071.36053 | | .38912 | .38912 | .39995 | .09164 | .09344 | .09489 |
| .0000 | 1657.07622 | 311.24621 | 1071.72598 | | .37471 | .37471 | .38415 | .08239 | .08376 | .08489 |
| .0000 | 1656.60486 | 311.15669 | 1071.42461 | | .36815 | .36815 | .37062 | .08726 | .08816 | .08855 |
| .0000 | 1656.32949 | 311.10677 | 1071.24582 | | .35878 | .35878 | .37062 | .08401 | .08478 | .08553 |
| .0000 | 1655.80373 | 311.19482 | 1071.54903 | | .35347 | .35347 | .35804 | .08296 | .08401 | .08496 |
| .0000 | 1657.27647 | 311.28256 | 1071.85149 | | .34624 | .34624 | .34904 | .07876 | .07968 | .08196 |
| .0000 | 1657.16254 | 311.26139 | 1071.77823 | | .31025 | .31025 | .32448 | .07442 | .07525 | .07759 |
| .0000 | 1657.13413 | -.02512 | -.08643 | | .08073 | .08073 | .00000 | .00186 | .00194 | .00210 |

TABULATED DATA - 0A16A (ARC 11-97-87-094)

PAGE 547
(EE7005) (02 AUG 75)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YQ
BREF = 936.6880 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ATLON = .000 BOFLAP = -7.170

RNWL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|--------------|----------|--------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| | .000 | .00000 | 1847.14075 | 235.84824 | 1094.43971 | .38036 | .38856 | .43079 | .06915 | .07169 | .07597 |
| | 2.000 | .00000 | 1846.77534 | 235.80064 | 1094.21881 | .37988 | .38355 | .42568 | .06976 | .07182 | .07623 |
| | 4.000 | .00000 | 1847.06482 | 235.83535 | 1094.37987 | .37377 | .38257 | .41663 | .07239 | .07445 | .07871 |
| | 6.000 | .00000 | 1846.70287 | 235.79072 | 1094.17278 | .36768 | .38184 | .40843 | .07469 | .07689 | .08100 |
| | 8.000 | .00000 | 1846.84723 | 235.86916 | 1094.25936 | .35614 | .36952 | .39195 | .07566 | .07786 | .08157 |
| | 10.000 | .00000 | 1847.73077 | 235.93651 | 1094.64980 | .34897 | .35662 | .37688 | .07469 | .07653 | .07974 |
| | 12.000 | .00000 | 1847.06197 | 235.84271 | 1094.41403 | .34473 | .35439 | .37109 | .07474 | .07640 | .07924 |
| | 14.000 | .00000 | 1846.76268 | 235.79962 | 1094.21408 | .33814 | .34764 | .36358 | .07213 | .07364 | .07641 |
| | 16.000 | .00000 | 1846.78920 | 235.81072 | 1094.26928 | .32903 | .33789 | .34979 | .07109 | .07251 | .07486 |
| | 18.000 | .00000 | 1846.62433 | 235.78563 | 1094.14917 | .31706 | .32507 | .33902 | .07262 | .07411 | .07666 |
| | 20.000 | .00000 | 1846.86003 | 235.81953 | 1094.30648 | .30494 | .31332 | .33018 | .06965 | .07121 | .07330 |
| | 22.000 | .00000 | 1846.82697 | 235.81627 | 1094.29134 | .28887 | .29643 | .31304 | .06981 | .06723 | .07038 |
| | 24.000 | .00000 | 1845.84973 | 235.68545 | 1093.68892 | .27304 | .27989 | .29526 | .06571 | .06708 | .07813 |
| | GRADIENT | | | | | .00165 | .00275 | .00339 | .00081 | .00069 | .08869 |

RNWL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|--------------|----------|--------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| | .000 | .00000 | 2058.62274 | 178.13523 | 1068.13583 | .32543 | .34565 | .39055 | .05710 | .05990 | .06580 |
| | 2.000 | .00000 | 2058.69022 | 178.14101 | 1069.17053 | .32076 | .34013 | .38735 | .05930 | .06214 | .06796 |
| | 4.000 | .00000 | 2059.24142 | 178.10249 | 1068.95941 | .31506 | .33167 | .37001 | .06130 | .06389 | .06965 |
| | 6.000 | .00000 | 2059.67896 | 178.13995 | 1069.16425 | .31302 | .32955 | .36883 | .06282 | .06559 | .07079 |
| | 8.000 | .00000 | 2059.63947 | 178.13694 | 1069.14375 | .31024 | .32556 | .35730 | .06434 | .06683 | .07256 |
| | 10.000 | .00000 | 2059.11798 | 178.09175 | 1068.87497 | .30510 | .31932 | .34567 | .06459 | .06702 | .07143 |
| | 12.000 | .00000 | 2058.74341 | 178.05964 | 1068.68224 | .30033 | .31282 | .33663 | .06504 | .06710 | .07118 |
| | 14.000 | .00000 | 2059.55933 | 178.12881 | 1069.09737 | .29695 | .30785 | .32789 | .06656 | .06844 | .07215 |
| | 16.000 | .00000 | 2058.36752 | 178.11318 | 1069.00357 | .29159 | .30158 | .31934 | .06723 | .06912 | .07243 |
| | 18.000 | .00000 | 2058.83898 | 178.06788 | 1068.73170 | .28361 | .29371 | .31127 | .06874 | .06768 | .07098 |
| | 20.000 | .00000 | 2059.20343 | 178.09903 | 1068.91862 | .28165 | .29174 | .30977 | .06931 | .07153 | .07582 |
| | 22.000 | .00000 | 2058.94348 | 178.07676 | 1068.84662 | .25472 | .26359 | .28352 | .05611 | .05381 | .05542 |
| | 24.000 | .00000 | 2058.85312 | 178.06898 | 1068.7885 | .32599 | .33924 | .36688 | .11957 | .12661 | .13857 |
| | GRADIENT | | | | | .00259 | .00350 | .00516 | .00105 | .00109 | .08094 |

(EE7005) (02 AUG 76)

TABULATED DATA - 0A16L (ARC 11-97-87-094)

ARC 11-97-87-094 0A16L ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 986.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -.7170

RWL = 2.00 GRADIENT INTERVAL = -5.00/ =.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|-------|----------|--------|------------|----------|-----------|---------|---------|---------|--------|--------|---------|
| 2.500 | .000 | .00000 | 1493.02940 | 87.42978 | 658.00838 | .33383 | .35930 | .42746 | .07013 | .07436 | .08417 |
| | 2.000 | .00000 | 1495.07198 | 87.43218 | 658.02643 | .33072 | .35400 | .41457 | .07055 | .07450 | .08427 |
| | 4.000 | .00000 | 1494.35016 | 87.38912 | 657.70238 | .32576 | .34635 | .40010 | .07144 | .07504 | .08436 |
| | 6.000 | .00000 | 1494.54664 | 87.42504 | 657.97271 | .32178 | .34139 | .38708 | .07225 | .07578 | .08371 |
| | 8.000 | .00000 | 1495.11034 | 87.43490 | 658.04688 | .31760 | .33634 | .37319 | .07307 | .07654 | .08421 |
| | 10.000 | .00000 | 1494.33298 | 87.38847 | 657.69749 | .31433 | .33155 | .37154 | .07382 | .07704 | .08445 |
| | 12.000 | .00000 | 1494.98853 | 87.42791 | 657.99431 | .30898 | .32427 | .35842 | .07378 | .07664 | .08212 |
| | 14.000 | .00000 | 1494.32795 | 87.38815 | 657.69506 | .30227 | .31667 | .34404 | .07438 | .07716 | .08330 |
| | 16.000 | .00000 | 1494.89258 | 87.42212 | 657.95068 | .29846 | .31336 | .33847 | .07536 | .07823 | .08330 |
| | 18.000 | .00000 | 1494.35973 | 87.39025 | 657.71090 | .29541 | .30511 | .32663 | .07551 | .07857 | .08214 |
| | 20.000 | .00000 | 1494.85466 | 87.41988 | 657.93397 | .28768 | .29618 | .31594 | .07524 | .07872 | .07852 |
| | 22.000 | .00000 | 1494.36290 | 87.39047 | 657.71252 | .29085 | .29085 | .31015 | .07016 | .07259 | .07552 |
| | 24.000 | .00000 | 1494.88579 | 87.42173 | 657.94775 | .27023 | .28066 | .29852 | .06987 | .06987 | .07277 |
| | GRADIENT | .00000 | -.16982 | -.01016 | -.07650 | -.00202 | -.00324 | -.00534 | .00017 | .00017 | -.00003 |

RWL = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|-------|----------|--------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| 3.000 | .000 | .00000 | 1948.57863 | 51.17657 | 566.06326 | .28977 | .32293 | .41212 | .06196 | .06769 | .08201 |
| | 2.000 | .00000 | 1940.33086 | 51.16886 | 565.97688 | .28486 | .31418 | .39821 | .05995 | .06495 | .07844 |
| | 4.000 | .00000 | 1939.42018 | 51.14571 | 565.72091 | .28315 | .30952 | .38780 | .06117 | .06581 | .07875 |
| | 6.000 | .00000 | 1939.65381 | 51.15674 | 565.84290 | .28147 | .30634 | .37151 | .06244 | .06698 | .07844 |
| | 8.000 | .00000 | 1938.91023 | 51.13770 | 565.63232 | .28049 | .30421 | .36487 | .06463 | .06932 | .08026 |
| | 10.000 | .00000 | 1938.71480 | 51.16037 | 565.88296 | .27808 | .29972 | .35349 | .06580 | .07013 | .08017 |
| | 12.000 | .00000 | 1938.08939 | 51.14639 | 565.72841 | .27208 | .29076 | .33582 | .06515 | .06878 | .07732 |
| | 14.000 | .00000 | 1938.37943 | 51.15133 | 565.78307 | .26768 | .28450 | .32355 | .06468 | .06815 | .07366 |
| | 16.000 | .00000 | 1938.79555 | 51.17805 | 565.63618 | .26586 | .28274 | .31545 | .06548 | .06895 | .07547 |
| | 18.000 | .00000 | 1938.37152 | 51.15323 | 563.80401 | .26245 | .27848 | .30773 | .06708 | .07050 | .07550 |
| | 20.000 | .00000 | 1938.61790 | 51.16009 | 565.87995 | .25505 | .27034 | .29715 | .06755 | .07093 | .07379 |
| | 22.000 | .00000 | 1938.80849 | 51.13827 | 565.63856 | .25554 | .27212 | .29896 | .06754 | .07093 | .07579 |
| | 24.000 | .00000 | 1939.39316 | 51.15332 | 565.80302 | .24205 | .25841 | .27976 | .05868 | .06179 | .06548 |
| | GRADIENT | .00000 | -.28961 | -.00774 | -.08592 | -.00165 | -.00335 | -.00588 | -.00050 | -.00047 | -.00082 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES.

(EE7D08) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ALLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0900 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RM/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.08.

| MACH | ALPHA | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPO31 | DP013 | DP023 | DP063 |
|--------|----------|--------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| 3.500 | .000 | .00000 | 2639.31985 | 34.57549 | 526.99553 | .26729 | .30613 | .42874 | .06054 | .06773 | .09744 |
| 2.000 | 4.000 | .00000 | 2640.01666 | 34.58445 | 527.13617 | .26504 | .30029 | .41217 | .06038 | .06697 | .08615 |
| 4.000 | 6.000 | .00000 | 2640.89986 | 34.59388 | 527.31057 | .26286 | .29477 | .39553 | .05988 | .06686 | .08534 |
| 6.000 | 8.000 | .00000 | 2644.64433 | 34.64481 | 528.09621 | .26136 | .28281 | .37580 | .05428 | .06738 | .08241 |
| 8.000 | 10.000 | .00000 | 2646.62357 | 34.67127 | 528.45853 | .25969 | .27324 | .35752 | .04400 | .06837 | .07889 |
| 10.000 | 12.000 | .00000 | 2646.80231 | 34.67362 | 528.49525 | .25843 | .27143 | .34118 | .05977 | .06471 | .07664 |
| 12.000 | 14.000 | .00000 | 2647.36594 | 34.68086 | 528.60566 | .25227 | .27378 | .32773 | .06586 | .06737 | .07818 |
| 14.000 | 16.000 | .00000 | 2652.42508 | 34.74652 | 529.68644 | .24924 | .26893 | .31566 | .06180 | .05594 | .07526 |
| 16.000 | 18.000 | .00000 | 2653.07376 | 34.75490 | 529.73420 | .24579 | .26538 | .30341 | .06160 | .06574 | .07580 |
| 18.000 | 20.000 | .00000 | 2650.25250 | 34.71894 | 529.18607 | .24612 | .26493 | .30061 | .06491 | .06810 | .07529 |
| 20.000 | 22.000 | .00000 | 2651.57239 | 34.73568 | 529.43997 | .24344 | .26231 | .29615 | .06379 | .06904 | .07536 |
| 22.000 | 24.000 | .00000 | 2652.55411 | 34.74832 | 529.63383 | .24057 | .25932 | .29227 | .06478 | .06786 | .07582 |
| 24.000 | GRADIENT | .00000 | 2651.95234 | 34.74070 | 529.51771 | .23825 | .25629 | .28818 | .06385 | .06786 | .07582 |
| | | .00000 | .39504 | .00510 | .07776 | -.00111 | -.00284 | -.00680 | -.00016 | -.00847 | -.00103 |

(EE7006) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|----------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | 2.00000 | 2628.08527 | 2060.85532 | 567.28599 | .03265 | .03264 | .03268 | -.15058 | -.15053 | -.15070 |
| 2.000 | .000 | 2.00000 | 2625.49564 | 2058.85480 | 566.64094 | .07401 | .07401 | .07415 | -.11915 | -.11915 | -.11934 |
| 4.000 | .000 | 2.00000 | 2627.76624 | 2060.48869 | 567.27855 | .08083 | .08083 | .08082 | -.11202 | -.11202 | -.11209 |
| 6.000 | .000 | 2.00000 | 2627.00064 | 2059.99654 | 567.00510 | .05868 | .05812 | .05507 | -.12422 | -.12430 | -.12421 |
| 8.000 | .000 | 2.00000 | 2626.97894 | 2059.42654 | 566.97571 | .04657 | .04658 | .04657 | -.12383 | -.12385 | -.12382 |
| 10.000 | .000 | 2.00000 | 2626.30542 | 2059.42654 | 566.87888 | .02938 | .03203 | .03002 | -.12601 | -.12614 | -.12613 |
| 12.000 | .000 | 2.00000 | 2626.31223 | 2059.48074 | 566.83148 | .02010 | .02310 | .02009 | -.13002 | -.13011 | -.12996 |
| 14.000 | .000 | 2.00000 | 2628.99167 | 2061.14455 | 567.54712 | -.00408 | -.00408 | -.00408 | -.13263 | -.13250 | -.13252 |
| 16.000 | .000 | 2.00000 | 2627.44873 | 2060.24384 | 567.20490 | -.02610 | -.02309 | -.02610 | -.14242 | -.14242 | -.14244 |
| 18.000 | .000 | 2.00000 | 2626.31006 | 2059.46307 | 566.84888 | -.05846 | -.05338 | -.05850 | -.15669 | -.15650 | -.15650 |
| 20.000 | .000 | 2.00000 | 2626.65659 | 2059.71997 | 566.93661 | -.10257 | -.10236 | -.10268 | -.17659 | -.17626 | -.17675 |
| 22.000 | .000 | 2.00000 | 2624.28891 | 2057.95145 | 566.33746 | -.13441 | -.13441 | -.13441 | -.19717 | -.19659 | -.19788 |
| 24.000 | .000 | 2.00000 | 2623.73047 | 2057.53900 | 566.19147 | -.17610 | -.17475 | -.17779 | -.21978 | -.21819 | -.22178 |
| GRADIENT | | .00000 | -.07975 | -.09139 | .01165 | .01206 | .01205 | .01206 | .00964 | .00964 | .00965 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|----------|-------|---------|------------|------------|-----------|--------|--------|--------|---------|---------|---------|
| .900 | .000 | 2.00000 | 2112.48575 | 1248.91620 | 863.56595 | .23574 | .23574 | .23570 | -.04409 | -.04407 | -.04408 |
| 2.000 | .000 | 2.00000 | 2115.92145 | 1251.04158 | 864.67588 | .24203 | .24203 | .24308 | -.02448 | -.02448 | -.02448 |
| 4.000 | .000 | 2.00000 | 2117.58701 | 1251.97867 | 866.24142 | .24105 | .24110 | .24086 | -.01435 | -.01435 | -.01434 |
| 6.000 | .000 | 2.00000 | 2114.79404 | 1250.37154 | 864.42252 | .24379 | .24070 | .24347 | .00074 | .00074 | .00074 |
| 8.000 | .000 | 2.00000 | 2119.07946 | 1252.94972 | 866.12875 | .22316 | .24070 | .24068 | .01002 | .01002 | .01002 |
| 10.000 | .000 | 2.00000 | 2115.97958 | 1251.07672 | 864.90286 | .21473 | .22343 | .21450 | .01227 | .01227 | .01228 |
| 12.000 | .000 | 2.00000 | 2114.68259 | 1250.28664 | 864.39597 | .18780 | .21464 | .18777 | .01417 | .01417 | .01416 |
| 14.000 | .000 | 2.00000 | 2116.90549 | 1251.61702 | 865.28848 | .15253 | .18765 | .15248 | .01122 | .01122 | .01123 |
| 16.000 | .000 | 2.00000 | 2117.39859 | 1251.88719 | 865.51141 | .12086 | .15224 | .12088 | .00350 | .00350 | .00350 |
| 18.000 | .000 | 2.00000 | 2115.91061 | 1251.01936 | 864.89105 | .08452 | .12064 | .08452 | -.00668 | -.00668 | -.00668 |
| 20.000 | .000 | 2.00000 | 2110.44638 | 1247.78032 | 862.66608 | .05188 | .08452 | .05188 | -.02275 | -.02270 | -.02276 |
| 22.000 | .000 | 2.00000 | 2109.08810 | 1246.91112 | 862.17700 | .01069 | .05159 | .01069 | -.03564 | -.03561 | -.03571 |
| 24.000 | .000 | 2.00000 | 2109.08810 | 1246.91112 | 862.17700 | .01069 | .01069 | .01069 | -.05778 | -.05743 | -.05813 |
| GRADIENT | | .00000 | 1.66636 | .99836 | .66797 | .00133 | .00138 | .00129 | .00743 | .00743 | .00744 |

TABLATED DATA - 0A161 (ARC 11-97-87-09+)
ARC 11-97-87-09+ 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2680.0000 50.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRON = .000 BOFLAP = -7.170

RM/L = 4.27 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO43 | DPO53 | DPO63 | DPO73 | DPO83 | DPO93 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| 1.200 | .000 | 2.00000 | 2082.5824 | 828.76637 | 1166.46990 | 4.2644 | 4.2702 | 4.2723 | .13958 | .13989 | .13983 | .13983 | .13983 | .13983 |
| 2.000 | .000 | 2.00000 | 2008.90266 | 888.44971 | 1166.04420 | 4.1972 | 4.2038 | 4.2091 | .15775 | .15795 | .15788 | .15788 | .15788 | .15788 |
| 4.000 | .000 | 2.00000 | 2048.08081 | 889.45160 | 1166.04684 | 4.1428 | 4.1453 | 4.1479 | .16760 | .16768 | .16768 | .16768 | .16768 | .16768 |
| 6.000 | .000 | 2.00000 | 2012.49275 | 829.60759 | 1167.67390 | 4.1120 | 4.1151 | 4.1198 | .17739 | .17739 | .17739 | .17739 | .17739 | .17739 |
| 8.000 | .000 | 2.00000 | 2012.15788 | 829.57032 | 1167.32253 | 4.0456 | 4.0437 | 4.0537 | .17076 | .17056 | .17056 | .17056 | .17056 | .17056 |
| 10.000 | .000 | 2.00000 | 2011.92180 | 829.36008 | 1167.32253 | 3.9931 | 3.9977 | 3.9992 | .14527 | .14541 | .14541 | .14541 | .14541 | .14541 |
| 12.000 | .000 | 2.00000 | 2013.54626 | 829.54049 | 1168.14247 | 3.9444 | 3.9418 | 3.9470 | .10241 | .10248 | .10241 | .10241 | .10241 | .10241 |
| 14.000 | .000 | 2.00000 | 2015.19860 | 889.40101 | 1168.79056 | 3.8851 | 3.8851 | 3.8883 | .08174 | .08174 | .08174 | .08174 | .08174 | .08174 |
| 16.000 | .000 | 2.00000 | 2012.69295 | 829.94411 | 1168.14755 | 3.3340 | 3.3327 | 3.3327 | .07756 | .07756 | .07756 | .07756 | .07756 | .07756 |
| 18.000 | .000 | 2.00000 | 2013.23676 | 829.86232 | 1168.03244 | 3.0148 | 3.0101 | 3.0123 | .05994 | .05994 | .05994 | .05994 | .05994 | .05994 |
| 20.000 | .000 | 2.00000 | 2017.18059 | 830.97342 | 1169.23631 | 2.6808 | 2.6783 | 2.6824 | .04193 | .04193 | .04193 | .04193 | .04193 | .04193 |
| 22.000 | .000 | 2.00000 | 2019.10837 | 831.89906 | 1170.99917 | 2.3697 | 2.3638 | 2.3702 | .02764 | .02764 | .02764 | .02764 | .02764 | .02764 |
| 24.000 | .000 | 2.00000 | 2020.01411 | 832.02087 | 1171.07862 | 2.0804 | 2.0705 | 2.0804 | .00397 | .00397 | .00397 | .00397 | .00397 | .00397 |
| GRADIENT | | .00000 | -.11837 | -.07869 | -.11077 | -.00304 | -.00342 | -.00311 | .00599 | .00599 | .00596 | .00596 | .00596 | .00597 |

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO43 | DPO53 | DPO63 | DPO73 | DPO83 | DPO93 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| 1.400 | .000 | 2.00000 | 2044.20187 | 642.94883 | 1316.73218 | 4.3296 | 4.3772 | 4.3743 | .08076 | .08139 | .08139 | .08139 | .08139 | .08139 |
| 2.000 | .000 | 2.00000 | 2046.48984 | 643.12893 | 1317.92126 | 4.1811 | 4.1811 | 4.1811 | .08756 | .08756 | .08756 | .08756 | .08756 | .08756 |
| 4.000 | .000 | 2.00000 | 2041.44493 | 641.78395 | 1315.18679 | 4.1378 | 4.1783 | 4.1659 | .09475 | .09475 | .09475 | .09475 | .09475 | .09475 |
| 6.000 | .000 | 2.00000 | 2044.57449 | 642.62668 | 1315.89333 | 4.0420 | 4.0725 | 4.0725 | .09725 | .09725 | .09725 | .09725 | .09725 | .09725 |
| 8.000 | .000 | 2.00000 | 2040.79553 | 641.70668 | 1315.00722 | 3.9988 | 4.0226 | 4.0389 | .09354 | .09414 | .09414 | .09414 | .09414 | .09414 |
| 10.000 | .000 | 2.00000 | 2035.77562 | 640.44118 | 1312.41475 | 3.8610 | 3.8373 | 3.8847 | .08504 | .08504 | .08504 | .08504 | .08504 | .08504 |
| 12.000 | .000 | 2.00000 | 2036.94425 | 640.72521 | 1312.99580 | 3.7435 | 3.7416 | 3.7416 | .08207 | .08207 | .08207 | .08207 | .08207 | .08207 |
| 14.000 | .000 | 2.00000 | 2039.66687 | 641.42471 | 1314.43882 | 3.7516 | 3.7682 | 3.7682 | .07683 | .07683 | .07683 | .07683 | .07683 | .07683 |
| 16.000 | .000 | 2.00000 | 2039.32877 | 641.26414 | 1314.10118 | 3.5331 | 3.5322 | 3.5322 | .06588 | .06588 | .06588 | .06588 | .06588 | .06588 |
| 18.000 | .000 | 2.00000 | 2033.81595 | 638.92500 | 1311.39922 | 3.2460 | 3.2714 | 3.2681 | .05499 | .05499 | .05499 | .05499 | .05499 | .05499 |
| 20.000 | .000 | 2.00000 | 2023.58159 | 637.19749 | 1305.78766 | 3.1948 | 3.2187 | 3.2665 | .04432 | .04432 | .04432 | .04432 | .04432 | .04432 |
| 22.000 | .000 | 2.00000 | 2023.58159 | 635.67937 | 1304.70533 | 2.9801 | 2.9371 | 2.9881 | .03954 | .03954 | .03954 | .03954 | .03954 | .03954 |
| 24.000 | .000 | 2.00000 | 2021.60355 | 635.67937 | 1304.70533 | 2.8058 | 2.8237 | 2.8237 | .03354 | .03354 | .03354 | .03354 | .03354 | .03354 |
| GRADIENT | | .00000 | -.19109 | -.07869 | -.11077 | -.00479 | -.00497 | -.00521 | .00599 | .00599 | .00596 | .00596 | .00596 | .00597 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RMKES.

(EE7805) (02 AUG 76)

REFERENCE DATA

SREF = 2590.0000 SQ.FT. YMRP = 1076.6800 IN. X0
LREF = 474.8800 IN. YMRP = .0000 IN. Y0
BREF = 936.8800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ATLRON = .000 BOFLAP = -7.370

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 1.550 | .000 | 2.00000 | 1563.49995 | 397.96504 | 1036.97871 | .38111 | .38643 | .39354 | .08444 | .05513 | .08604 |
| 2.000 | .000 | 2.00000 | 1570.76330 | 398.53609 | 1038.46596 | .37289 | .37955 | .38453 | .08443 | .05735 | .08806 |
| 4.000 | .000 | 2.00000 | 1572.20035 | 398.85619 | 1039.35613 | .37059 | .37630 | .38172 | .08550 | .07233 | .07112 |
| 6.000 | .000 | 2.00000 | 1572.37077 | 398.99357 | 1039.43916 | .36840 | .36446 | .37473 | .07197 | .07265 | .07362 |
| 8.000 | .000 | 2.00000 | 1573.70795 | 399.22253 | 1040.32282 | .35913 | .35278 | .36714 | .07301 | .07087 | .07167 |
| 10.000 | .000 | 2.00000 | 1573.65640 | 399.24512 | 1040.31351 | .34760 | .33226 | .35714 | .06781 | .06822 | .06928 |
| 12.000 | .000 | 2.00000 | 1572.64633 | 399.98661 | 1039.63991 | .33174 | .33448 | .34033 | .06660 | .06905 | .07001 |
| 14.000 | .000 | 2.00000 | 1572.69780 | 399.00035 | 1039.67572 | .32033 | .32786 | .33174 | .06184 | .06222 | .06300 |
| 16.000 | .000 | 2.00000 | 1572.12041 | 398.84843 | 1039.27986 | .30877 | .31187 | .31678 | .05856 | .05902 | .05977 |
| 18.000 | .000 | 2.00000 | 1571.97598 | 396.81422 | 1039.19070 | .29602 | .29239 | .29709 | .05132 | .05178 | .05243 |
| 20.000 | .000 | 2.00000 | 1574.13762 | 399.55440 | 1040.62433 | .28655 | .28260 | .28728 | .04804 | .04827 | .04875 |
| 22.000 | .000 | 2.00000 | 1576.42464 | 399.95516 | 1042.11156 | .27741 | .27228 | .27628 | .03367 | .03385 | .03435 |
| 24.000 | .000 | 2.00000 | 1576.96655 | 400.08383 | 1042.49695 | .25700 | .25964 | .26540 | .03021 | .03046 | .03102 |
| GRADIENT | | .00000 | .92511 | .22529 | .58703 | -.00263 | -.00253 | -.00295 | .00127 | .00139 | .00127 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|----------|-------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 1.750 | .000 | 2.00000 | 1656.77100 | 311.18817 | 1071.52611 | .37851 | .38811 | .40451 | .06348 | .05772 | .06579 |
| 2.000 | .000 | 2.00000 | 1655.31691 | 310.91837 | 1070.59719 | .38182 | .38950 | .40544 | .06777 | .06979 | .07110 |
| 4.000 | .000 | 2.00000 | 1655.46857 | 310.94556 | 1070.69418 | .38160 | .38950 | .40541 | .07957 | .07172 | .07384 |
| 6.000 | .000 | 2.00000 | 1655.59386 | 310.97010 | 1070.77524 | .37360 | .38129 | .39633 | .07256 | .07413 | .07638 |
| 8.000 | .000 | 2.00000 | 1656.77556 | 311.07782 | 1071.14619 | .36768 | .37533 | .38862 | .07328 | .07444 | .07649 |
| 10.000 | .000 | 2.00000 | 1656.23152 | 311.08952 | 1071.14630 | .35555 | .36143 | .37323 | .07159 | .07251 | .07436 |
| 12.000 | .000 | 2.00000 | 1656.29276 | 311.09945 | 1071.22061 | .34910 | .35451 | .36386 | .07094 | .07094 | .07237 |
| 14.000 | .000 | 2.00000 | 1656.36481 | 311.11320 | 1071.26796 | .34310 | .34267 | .35318 | .06808 | .06939 | .07020 |
| 16.000 | .000 | 2.00000 | 1656.64950 | 310.96556 | 1070.81123 | .32952 | .32865 | .33830 | .05775 | .05329 | .05722 |
| 18.000 | .000 | 2.00000 | 1656.12803 | 311.06919 | 1071.11641 | .31954 | .32194 | .32991 | .05715 | .05807 | .05960 |
| 20.000 | .000 | 2.00000 | 1656.39803 | 311.11937 | 1071.26886 | .29675 | .29644 | .30366 | .05130 | .05210 | .05365 |
| 22.000 | .000 | 2.00000 | 1655.98810 | 311.04332 | 1071.02734 | .28682 | .29096 | .30192 | .04762 | .04817 | .04964 |
| 24.000 | .000 | 2.00000 | 1655.65131 | 310.98100 | 1070.81276 | .26924 | .27221 | .28288 | .04766 | .04830 | .04985 |
| GRADIENT | | .00000 | -.32560 | -.06040 | -.20799 | .00077 | .00039 | .00022 | .00177 | .00175 | .00179 |

TABLATED DATA - 0A161 (ARC 11-97-87-09H)

ARC 11-97-87-09H 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BEFLAP = -7.170

REFERENCE DATA

SREF = 2699.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RVL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPQ31 | DPQ13 | DPQ23 | DPQ33 |
|--------|--------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 2.000 | .000 | 2.00000 | 1845.98238 | 235.71697 | 1093.83054 | .33681 | .35425 | .38010 | .05317 | .05825 | .06063 |
| 2.000 | 2.000 | 2.00000 | 1845.69019 | 235.68356 | 1093.67549 | .33304 | 3.804 | .37527 | .05463 | .05656 | .05996 |
| 4.000 | 4.000 | 2.00000 | 1844.79626 | 235.56110 | 1093.10722 | .33590 | .35014 | .37572 | .05569 | .05754 | .06079 |
| 6.000 | 6.000 | 2.00000 | 1844.08850 | 235.45566 | 1092.66437 | .33370 | 3.712 | .36960 | .05741 | .06029 | .06279 |
| 8.000 | 8.000 | 2.00000 | 1845.05612 | 235.59471 | 1093.26320 | .32465 | .33608 | .35852 | .05563 | .05718 | .06016 |
| 10.000 | 10.000 | 2.00000 | 1845.94762 | 235.71702 | 1093.83081 | .31864 | 3.257 | .34764 | .05349 | .05495 | .05734 |
| 12.000 | 12.000 | 2.00000 | 1845.38353 | 235.63526 | 1093.45602 | .30564 | 3.154 | .33083 | .05200 | .05350 | .05541 |
| 14.000 | 14.000 | 2.00000 | 1846.05315 | 235.72144 | 1093.85130 | .29433 | 3.0295 | .31744 | .05155 | .05288 | .05490 |
| 16.000 | 16.000 | 2.00000 | 1846.19692 | 235.73932 | 1093.93427 | .28411 | 2.9171 | .30461 | .05003 | .05112 | .05295 |
| 18.000 | 18.000 | 2.00000 | 1846.65709 | 235.79776 | 1094.20544 | .27814 | 2.8614 | .30305 | .04974 | .05090 | .05234 |
| 20.000 | 20.000 | 2.00000 | 1847.25053 | 235.89923 | 1094.62527 | .27189 | 2.7959 | .29614 | .04793 | .04926 | .05140 |
| 22.000 | 22.000 | 2.00000 | 1847.20595 | 235.88139 | 1094.59354 | .26757 | 2.6448 | .27984 | .04178 | .04270 | .04473 |
| 24.000 | 24.000 | 2.00000 | 1846.34912 | 235.77158 | 1094.08394 | .23612 | 2.4267 | .25665 | .03748 | .03836 | .04019 |
| | | .00000 | -.29951 | -.03997 | -.18083 | -.00023 | -.00103 | -.00110 | .00057 | .00059 | .00063 |

RVL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPQ31 | DPQ13 | DPQ23 | DPQ33 |
|--------|--------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 2.250 | .000 | 2.00000 | 2059.21463 | 178.10006 | 1068.92475 | .33608 | .35957 | .40451 | .05948 | .06157 | .06752 |
| 2.000 | 4.000 | 2.00000 | 2059.05692 | 178.08647 | 1068.84325 | .33303 | .35601 | .39777 | .05927 | .06248 | .06807 |
| 4.000 | 6.000 | 2.00000 | 2059.38257 | 178.11435 | 1069.01056 | .32798 | 3.752 | .36842 | .06148 | .06438 | .07022 |
| 6.000 | 8.000 | 2.00000 | 2059.19321 | 178.09938 | 1068.91354 | .32198 | .33910 | .37407 | .06326 | .06594 | .07124 |
| 8.000 | 10.000 | 2.00000 | 2059.07936 | 178.09938 | 1068.85459 | .31793 | 3.318 | .36551 | .06431 | .06694 | .07203 |
| 10.000 | 12.000 | 2.00000 | 2059.48004 | 178.12256 | 1069.05989 | .31117 | 3.2524 | .35185 | .06527 | .06765 | .07294 |
| 12.000 | 14.000 | 2.00000 | 2059.62592 | 178.04952 | 1068.62146 | .30592 | 3.1522 | .34424 | .06593 | .06832 | .07254 |
| 14.000 | 16.000 | 2.00000 | 2059.07443 | 178.08793 | 1068.85205 | .29885 | 3.1006 | .33250 | .06516 | .06715 | .07105 |
| 16.000 | 18.000 | 2.00000 | 2059.61589 | 178.04655 | 1068.61566 | .29648 | 3.0736 | .32871 | .06568 | .06765 | .07144 |
| 18.000 | 20.000 | 2.00000 | 2058.53250 | 178.04136 | 1068.57248 | .29046 | 3.0237 | .32573 | .06553 | .06784 | .07208 |
| 20.000 | 22.000 | 2.00000 | 2058.52417 | 178.04055 | 1068.56763 | .28014 | 2.9120 | .31492 | .06128 | .06327 | .06745 |
| 22.000 | 24.000 | 2.00000 | 2059.59705 | 178.04666 | 1068.60429 | .27853 | 2.8922 | .31279 | .06401 | .06605 | .07043 |
| 24.000 | | 2.00000 | 2059.37756 | 178.02781 | 1068.49115 | .25787 | 2.6230 | .26625 | .03755 | .03878 | .04123 |
| | | .00000 | -.00123 | -.00357 | -.02144 | -.00203 | -.00301 | -.00402 | .00075 | .00056 | .00067 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(EE7006) (02 AUG 75)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 SCFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPQ31 | DPQ23 | DPQ33 |
|--------------|----------|------------|----------|-----------|---------|---------|--------|--------|--------|
| ALPHA | 2.00000 | 1487.32057 | 86.97802 | 654.60834 | .30587 | .33110 | .05291 | .05638 | .06356 |
| | 2.00000 | 1487.99101 | 87.01836 | 654.91200 | .30533 | .33033 | .05576 | .05523 | .05556 |
| | 4.00000 | 1487.96725 | 87.01707 | 654.90228 | .30263 | .32358 | .05654 | .05977 | .05703 |
| | 6.00000 | 1487.96211 | 87.01669 | 654.89947 | .29631 | .31575 | .05576 | .05976 | .05549 |
| | 8.00000 | 1487.95708 | 87.01633 | 654.89824 | .29330 | .31127 | .05512 | .06110 | .05759 |
| | 10.00000 | 1487.95170 | 87.01443 | 654.88243 | .28709 | .30335 | .05568 | .05844 | .05423 |
| | 12.00000 | 1487.93314 | 87.01538 | 654.88956 | .28251 | .29752 | .05633 | .05877 | .05391 |
| | 14.00000 | 1487.92639 | 87.01463 | 654.88538 | .27722 | .29026 | .05546 | .05760 | .05210 |
| | 16.00000 | 1487.94725 | 87.01604 | 654.89454 | .27225 | .28444 | .05402 | .05684 | .05082 |
| | 18.00000 | 1487.92914 | 87.01502 | 654.88689 | .26880 | .28044 | .05510 | .05811 | .05196 |
| | 20.00000 | 1487.96275 | 87.01727 | 654.90379 | .26155 | .27299 | .05513 | .05713 | .05055 |
| | 22.00000 | 1487.95438 | 87.01694 | 654.90131 | .25233 | .26261 | .05569 | .05449 | .05750 |
| | 24.00000 | 1487.93357 | 87.01857 | 654.91432 | .24424 | .25343 | .04863 | .05117 | .05406 |
| GRADIENT | .00000 | .16166 | .00976 | .07349 | -.00081 | -.00188 | .00093 | .00085 | .00087 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.07

| MACH = 3.000 | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPQ31 | DPQ23 | DPQ33 |
|--------------|----------|------------|----------|-----------|---------|---------|--------|--------|--------|
| ALPHA | 2.00000 | 1939.15904 | 51.12361 | 565.47639 | .26731 | .30178 | .04776 | .05274 | .06323 |
| | 2.00000 | 1940.13321 | 51.14938 | 565.76151 | .26153 | .29359 | .04571 | .05138 | .06171 |
| | 4.00000 | 1939.45256 | 51.13434 | 565.59507 | .26121 | .29541 | .04990 | .05431 | .06507 |
| | 6.00000 | 1939.50289 | 51.13526 | 565.60524 | .25963 | .29396 | .04934 | .05330 | .06275 |
| | 8.00000 | 1939.64354 | 51.14013 | 565.65913 | .25580 | .27683 | .04970 | .05338 | .06238 |
| | 10.00000 | 1937.17825 | 51.07750 | 564.96639 | .25264 | .27513 | .05030 | .05400 | .06209 |
| | 12.00000 | 1938.09195 | 51.10284 | 565.24663 | .24499 | .26425 | .04755 | .05116 | .05794 |
| | 14.00000 | 1937.60145 | 51.08720 | 565.07146 | .24113 | .25776 | .04979 | .04979 | .05569 |
| | 16.00000 | 1939.26642 | 51.13221 | 565.57153 | .23931 | .25485 | .04875 | .05140 | .05593 |
| | 18.00000 | 1938.53479 | 51.11276 | 565.35537 | .23664 | .25177 | .04853 | .05002 | .05438 |
| | 20.00000 | 1939.72614 | 51.12192 | 565.45771 | .23143 | .24613 | .04748 | .05002 | .05254 |
| | 22.00000 | 1938.94317 | 51.12888 | 565.53468 | .22760 | .24172 | .04645 | .04890 | .05142 |
| | 24.00000 | 1938.90468 | 51.12956 | 565.52891 | .22445 | .23615 | .04539 | .04773 | .05142 |
| GRADIENT | .00000 | .07340 | .00268 | .02967 | -.00153 | -.00309 | .00054 | .00039 | .00046 |

TABULATED DATA - OARIG (ARC 11-97-87-89*)
ARC 11-97-87-09* OARIG ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA =
AILRON =
ELEVON = .000
BOFLAP = -7.170

PARAMETRIC DATA

FN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | DPQ11 | DPQ21 | DPQ31 | DPQ13 | DPQ23 | DPQ33 |
|--------------|----------|---------|------------|----------|-----------|---------|---------|---------|--------|---------|---------|
| | .000 | 2.00000 | 2667.88812 | 34.95021 | 532.71109 | .25554 | .29372 | .40632 | .04896 | .05584 | .27897 |
| | 2.000 | 2.00000 | 2667.99584 | 34.95149 | 532.73055 | .24960 | .28899 | .39186 | .04800 | .05420 | .06902 |
| | 4.000 | 2.00000 | 2667.55579 | 34.94600 | 532.64699 | .24734 | .28131 | .37921 | .04913 | .05469 | .05844 |
| | 6.000 | 2.00000 | 2668.66705 | 34.96039 | 532.86630 | .24535 | .27731 | .36253 | .04861 | .05384 | .06579 |
| | 8.000 | 2.00000 | 2668.85286 | 34.96260 | 532.89992 | .24178 | .27030 | .34780 | .04967 | .05462 | .06592 |
| | 10.000 | 2.00000 | 2667.49628 | 34.94465 | 532.62630 | .23955 | .26723 | .33220 | .05034 | .05518 | .06592 |
| | 12.000 | 2.00000 | 2668.69775 | 34.97392 | 533.07244 | .23421 | .25718 | .31202 | .04956 | .05364 | .06290 |
| | 14.000 | 2.00000 | 2668.86501 | 34.96312 | 532.90798 | .23234 | .25238 | .30214 | .04953 | .05323 | .06178 |
| | 16.000 | 2.00000 | 2668.65961 | 34.97344 | 533.06512 | .22816 | .24745 | .28947 | .04959 | .05303 | .06044 |
| | 18.000 | 2.00000 | 2668.67300 | 34.96078 | 532.87227 | .22705 | .24531 | .28181 | .04921 | .05264 | .05901 |
| | 20.000 | 2.00000 | 2670.18805 | 34.98034 | 532.17039 | .22722 | .24541 | .27888 | .05131 | .05479 | .06099 |
| | 22.000 | 2.00000 | 2668.19308 | 34.95369 | 532.76417 | .22557 | .24346 | .27484 | .05132 | .05484 | .06072 |
| | 24.000 | 2.00000 | 2670.01163 | 34.97799 | 533.13459 | .22448 | .24335 | .27403 | .05122 | .05486 | .06064 |
| | GRADIENT | .06000 | -.08307 | -.00105 | -.01603 | -.00205 | -.00460 | -.00678 | .00804 | -.00029 | -.00036 |

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(EE7D07) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER - RAMES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/VL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|----------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | 5.00000 | 2624.00095 | 2057.68289 | 566.31805 | -.04201 | -.04201 | -.04204 | -.17482 | -.17474 | -.17485 |
| 2.000 | .000 | 5.00000 | 2623.93231 | 2057.61972 | 566.31259 | -.02487 | -.02489 | -.02486 | -.16103 | -.16103 | -.16086 |
| 4.000 | .000 | 5.00000 | 2624.65535 | 2059.36877 | 566.48758 | -.01915 | -.01915 | -.01915 | -.15053 | -.15048 | -.15050 |
| 6.000 | .000 | 5.00000 | 2627.65573 | 2060.37476 | 567.28098 | -.02943 | -.02943 | -.02938 | -.15647 | -.15648 | -.15626 |
| 8.000 | .000 | 5.00000 | 2625.01135 | 2059.40189 | 566.60947 | -.02734 | -.02734 | -.02734 | -.15200 | -.15200 | -.15209 |
| 10.000 | .000 | 5.00000 | 2625.86368 | 2059.09568 | 566.65670 | -.04258 | -.04248 | -.04251 | -.15350 | -.15318 | -.15327 |
| 12.000 | .000 | 5.00000 | 2624.17437 | 2057.86670 | 566.33981 | -.03129 | -.03133 | -.03142 | -.15815 | -.15815 | -.15839 |
| 14.000 | .000 | 5.00000 | 2624.36069 | 2058.02087 | 566.51654 | -.07404 | -.07413 | -.05142 | -.15902 | -.17267 | -.17302 |
| 16.000 | .000 | 5.00000 | 2624.72836 | 2058.21182 | 566.51654 | -.09847 | -.09837 | -.09852 | -.18240 | -.18240 | -.18266 |
| 18.000 | .000 | 5.00000 | 2627.19732 | 2059.99523 | 567.23209 | -.12859 | -.12838 | -.12862 | -.19458 | -.19428 | -.19462 |
| 20.000 | .000 | 5.00000 | 2627.48154 | 2050.22818 | 567.25336 | -.16838 | -.16812 | -.16873 | -.21558 | -.21526 | -.21599 |
| 22.000 | .000 | 5.00000 | 2625.04254 | 2059.51115 | 566.53098 | -.20007 | -.19935 | -.20161 | -.23641 | -.23660 | -.23815 |
| 24.000 | .000 | 5.00000 | 2625.90352 | 2059.18518 | 566.72034 | -.23245 | -.23050 | -.23539 | -.25768 | -.25558 | -.26083 |
| GRADIENT | | .00000 | .21397 | .17145 | .04238 | .00572 | .00572 | .00572 | .00607 | .00606 | .00609 |

RN/VL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|----------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .900 | .000 | 5.00000 | 2111.48715 | 1248.50783 | 862.97934 | .13534 | .13523 | .13945 | -.07259 | -.07255 | -.07264 |
| 2.000 | .000 | 5.00000 | 2115.43283 | 1250.78174 | 864.65109 | .13994 | .13979 | .13986 | -.05832 | -.05827 | -.05830 |
| 4.000 | .000 | 5.00000 | 2117.10139 | 1251.73029 | 865.37109 | .14423 | .14415 | .14412 | -.04419 | -.04417 | -.04416 |
| 6.000 | .000 | 5.00000 | 2114.79214 | 1250.37328 | 864.41888 | .14802 | .14778 | .14775 | -.03270 | -.03266 | -.03265 |
| 8.000 | .000 | 5.00000 | 2109.96957 | 1247.40634 | 862.56323 | .14225 | .14205 | .14204 | -.02308 | -.02306 | -.02306 |
| 10.000 | .000 | 5.00000 | 2116.56833 | 1251.47731 | 865.09103 | .12297 | .12311 | .12311 | -.02217 | -.02218 | -.02219 |
| 12.000 | .000 | 5.00000 | 2116.71036 | 1251.56195 | 865.14841 | .11510 | .11509 | .11511 | -.02329 | -.02329 | -.02329 |
| 14.000 | .000 | 5.00000 | 2112.28323 | 1248.90517 | 863.37808 | .09581 | .09572 | .09576 | -.02708 | -.02708 | -.02706 |
| 16.000 | .000 | 5.00000 | 2114.90735 | 1250.43449 | 864.47287 | .07763 | .06758 | .06765 | -.03319 | -.03317 | -.03320 |
| 18.000 | .000 | 5.00000 | 2115.76745 | 1250.94557 | 864.82080 | .03975 | .03974 | .03977 | -.04354 | -.04353 | -.04356 |
| 20.000 | .000 | 5.00000 | 2108.11169 | 1246.37889 | 861.73282 | .03731 | .00729 | .00731 | -.05882 | -.05872 | -.05887 |
| 22.000 | .000 | 5.00000 | 2109.97089 | 1247.37915 | 862.59174 | -.03004 | -.02991 | -.03010 | -.08059 | -.08025 | -.08073 |
| 24.000 | .000 | 5.00000 | 2116.70166 | 1251.42284 | 865.27884 | -.05952 | -.05904 | -.06988 | -.10615 | -.10544 | -.10657 |
| GRADIENT | | .00000 | 1.40354 | .80562 | .59794 | .03222 | .03223 | .00217 | .00710 | .00709 | .00712 |

(EE70077) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

TABLATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2699.0000' SQ.FT. XMRP = 1076.6800 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RNVL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DF011 | DF021 | DF031 | DF013 | DF023 | DF033 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.288 | .000 | 5.00000 | 2011.53369 | 829.44221 | 1167.44115 | .32776 | .32795 | .32845 | .10869 | .10873 | .10887 |
| 2.000 | 2.000 | 5.00000 | 2009.60754 | 828.89453 | 1166.58583 | .31618 | .31610 | .31660 | .12841 | .12839 | .12856 |
| 4.000 | 4.000 | 5.00000 | 2010.79175 | 829.08212 | 1166.82431 | .31054 | .31100 | .31128 | .13447 | .13447 | .13457 |
| 6.000 | 6.000 | 5.00000 | 2013.55270 | 830.00262 | 1168.22992 | .30760 | .30770 | .30817 | .13952 | .13955 | .13965 |
| 8.000 | 8.000 | 5.00000 | 2013.06412 | 829.84943 | 1168.01431 | .30089 | .30096 | .30141 | .13320 | .13323 | .13341 |
| 10.000 | 10.000 | 5.00000 | 2013.08351 | 829.88634 | 1168.06627 | .28461 | .28464 | .28493 | .09937 | .09937 | .09945 |
| 12.000 | 12.000 | 5.00000 | 2013.92958 | 830.14228 | 1168.43494 | .28699 | .28697 | .28702 | .04994 | .04994 | .04995 |
| 14.000 | 14.000 | 5.00000 | 2014.49097 | 830.35471 | 1168.72548 | .27477 | .27470 | .27421 | .04070 | .04069 | .04063 |
| 16.000 | 16.000 | 5.00000 | 2014.72244 | 830.37983 | 1168.76085 | .23821 | .23799 | .23753 | .03260 | .03260 | .03254 |
| 18.000 | 18.000 | 5.00000 | 2016.26015 | 830.79517 | 1168.34586 | .20824 | .20789 | .20764 | .01679 | .01676 | .01675 |
| 20.000 | 20.000 | 5.00000 | 2018.08556 | 831.44070 | 1170.25401 | .17993 | .17949 | .17929 | .00069 | .00069 | .00069 |
| 22.000 | 22.000 | 5.00000 | 2018.50551 | 830.83852 | 1169.47824 | .15408 | .15370 | .15352 | -.01622 | -.01618 | -.01617 |
| 24.000 | 24.000 | 5.00000 | 2018.10597 | 831.41154 | 1170.21298 | .12695 | .12629 | .12608 | -.04537 | -.04516 | -.04510 |
| GRADIENT | | .00000 | | -.09002 | -.12671 | -.00430 | -.00424 | -.00429 | .00643 | .00643 | .00643 |

| MACH | ALPHA | BETA | PT | P | OCOMP | DF011 | DF021 | DF031 | DF013 | DF023 | DF033 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.400 | .000 | 5.00000 | 2051.64871 | 644.49467 | 1320.72128 | .34158 | .34543 | .34385 | .04628 | .04689 | .04662 |
| 2.000 | 2.000 | 5.00000 | 2052.59506 | 644.77777 | 1321.38142 | .33240 | .33584 | .33382 | .05564 | .05609 | .05583 |
| 4.000 | 4.000 | 5.00000 | 2045.37886 | 642.84837 | 1317.34763 | .32608 | .32920 | .32723 | .05777 | .05821 | .05793 |
| 6.000 | 6.000 | 5.00000 | 2043.72665 | 642.43147 | 1316.43332 | .32077 | .32324 | .32359 | .05834 | .05870 | .05873 |
| 8.000 | 8.000 | 5.00000 | 2038.74538 | 641.18506 | 1313.94118 | .31501 | .31775 | .31802 | .05412 | .05450 | .05453 |
| 10.000 | 10.000 | 5.00000 | 2037.38092 | 640.82363 | 1313.19847 | .30349 | .30608 | .30592 | .05000 | .05034 | .05030 |
| 12.000 | 12.000 | 5.00000 | 2038.57976 | 641.10539 | 1313.77782 | .30284 | .30576 | .30393 | .04387 | .04421 | .04389 |
| 14.000 | 14.000 | 5.00000 | 2044.59329 | 642.68520 | 1317.01324 | .29543 | .29543 | .29463 | .03351 | .03373 | .03356 |
| 16.000 | 16.000 | 5.00000 | 2042.24944 | 642.08585 | 1315.78711 | .26324 | .26324 | .26361 | .02426 | .02439 | .02442 |
| 18.000 | 18.000 | 5.00000 | 2029.50903 | 638.78269 | 1309.01199 | .24094 | .24278 | .24099 | .01508 | .01508 | .01507 |
| 20.000 | 20.000 | 5.00000 | 2032.02077 | 639.50005 | 1310.48613 | .23005 | .23170 | .23176 | .00319 | .00316 | .00316 |
| 22.000 | 22.000 | 5.00000 | 2035.48625 | 640.41441 | 1312.35988 | .20908 | .21031 | .21106 | -.00638 | -.00638 | -.00632 |
| 24.000 | 24.000 | 5.00000 | 2020.62016 | 636.51413 | 1304.36728 | .19366 | .19480 | .19645 | -.01054 | -.01059 | -.01065 |
| GRADIENT | | .00000 | | -.41158 | -.84341 | -.00388 | -.00406 | -.00415 | .00287 | .00288 | .00285 |

(EE7D07) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES.

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
A1LRON = .000 EQFLAP = -7.170

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | CCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | 5.00000 | 1561.82259 | 396.34618 | 1032.75932 | .31872 | .32211 | .32778 | .03252 | .03258 | .03303 |
| 2.000 | .000 | 5.00000 | 1563.04628 | 396.65676 | 1033.56805 | .32108 | .32493 | .33146 | .03993 | .04060 | .04094 |
| 4.000 | .000 | 5.00000 | 1563.16922 | 396.66547 | 1033.59172 | .31360 | .31751 | .32336 | .04467 | .04516 | .04570 |
| 6.000 | .000 | 5.00000 | 1563.46620 | 396.74025 | 1033.78656 | .30718 | .31051 | .31467 | .04584 | .04623 | .04673 |
| 8.000 | .000 | 5.00000 | 1567.33949 | 397.71354 | 1036.32269 | .29921 | .30143 | .30629 | .04485 | .04512 | .04570 |
| 10.000 | .000 | 5.00000 | 1572.23866 | 398.95424 | 1039.55556 | .28922 | .29109 | .29540 | .03723 | .03743 | .03787 |
| 12.000 | .000 | 5.00000 | 1570.17735 | 398.42982 | 1038.18909 | .27696 | .27963 | .28209 | .03294 | .03319 | .03344 |
| 14.000 | .000 | 5.00000 | 1568.15354 | 397.92425 | 1036.87173 | .25799 | .26169 | .2652 | .02878 | .02910 | .02953 |
| 16.000 | .000 | 5.00000 | 1568.63318 | 398.03831 | 1037.16833 | .25474 | .25764 | .26091 | .01899 | .01916 | .01936 |
| 18.000 | .000 | 5.00000 | 1568.80666 | 398.07167 | 1037.25596 | .23369 | .23646 | .24054 | .01092 | .01103 | .01119 |
| 20.000 | .000 | 5.00000 | 1568.97487 | 398.12059 | 1037.38345 | .21446 | .21629 | .22181 | .00498 | .00501 | .00512 |
| 22.000 | .000 | 5.00000 | 1571.11673 | 398.66939 | 1038.91490 | .20126 | .20184 | .20638 | .00146 | .00146 | .00149 |
| 24.000 | .000 | 5.00000 | 1571.43859 | 398.73846 | 1038.99330 | .19306 | .19366 | .19745 | -.01190 | -.01193 | -.01213 |
| GRADIENT | | .00000 | .33565 | .07983 | .20800 | -.00136 | -.00115 | -.00135 | .00309 | .00314 | .00317 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | CCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 1.750 | .000 | 5.00000 | 1655.65865 | 310.98268 | 1070.81854 | .32465 | .32466 | .34421 | .03420 | .03486 | .03579 |
| 2.000 | .000 | 5.00000 | 1655.87311 | 311.02239 | 1070.95529 | .32573 | .33239 | .34452 | .03870 | .03932 | .04043 |
| 4.000 | .000 | 5.00000 | 1655.81648 | 311.01186 | 1070.91904 | .31478 | .32208 | .33274 | .04121 | .04196 | .04305 |
| 6.000 | .000 | 5.00000 | 1656.53960 | 311.14503 | 1071.38103 | .30765 | .31291 | .32244 | .04157 | .04213 | .04315 |
| 8.000 | .000 | 5.00000 | 1655.73843 | 310.99725 | 1070.86871 | .29839 | .30351 | .31386 | .03976 | .04034 | .04139 |
| 10.000 | .000 | 5.00000 | 1655.74200 | 310.99360 | 1070.87334 | .29562 | .30048 | .30844 | .03874 | .03925 | .04007 |
| 12.000 | .000 | 5.00000 | 1654.84193 | 310.82005 | 1070.25954 | .28248 | .28788 | .29374 | .03574 | .03629 | .03688 |
| 14.000 | .000 | 5.00000 | 1656.26360 | 311.09285 | 1071.19794 | .27175 | .27796 | .28800 | .03149 | .03207 | .03300 |
| 16.000 | .000 | 5.00000 | 1655.03867 | 310.85534 | 1070.96638 | .26156 | .26668 | .27725 | .02476 | .02516 | .02596 |
| 18.000 | .000 | 5.00000 | 1655.92122 | 310.79940 | 1070.38005 | .24675 | .25190 | .26088 | .02022 | .02066 | .02116 |
| 20.000 | .000 | 5.00000 | 1654.73904 | 310.79940 | 1070.18747 | .23349 | .23843 | .24753 | .01738 | .01768 | .01823 |
| 22.000 | .000 | 5.00000 | 1655.71509 | 310.98600 | 1070.82997 | .22062 | .22544 | .23433 | .01370 | .01396 | .01440 |
| 24.000 | .000 | 5.00000 | 1656.66179 | 311.16761 | 1071.45531 | .21022 | .21486 | .22276 | .00610 | .00621 | .00640 |
| GRADIENT | | .00000 | .03946 | .00730 | .02512 | -.00247 | -.00265 | -.00287 | .00175 | .00177 | .00181 |

(EE7D07) (02 AUG 75)

TABULATED DATA - OAL161 (ARC 11-97-87-89+)

ARC 11-97-87-89+ OAL161 ORBITER + RAKES

PARMETERIC DATA

BETA = 5.000 ELEVON = .000
ALIRON = .000 BDFLAP = -7.176

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 955.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|--------------|------------|-----------|------------|---------|---------|---------|---------|---------|--------|--------|--------|
| .000 | 1837.93884 | 234.25348 | 1087.03931 | .29167 | .30451 | .32309 | .30451 | .32309 | .02910 | .03071 | .03154 |
| 2.000 | 1830.93813 | 233.75630 | 1084.73218 | .28696 | .29856 | .31781 | .29856 | .31781 | .02953 | .03058 | .03133 |
| 4.000 | 1831.48227 | 233.83033 | 1085.07568 | .28151 | .29084 | .30976 | .29084 | .30976 | .03276 | .03353 | .03436 |
| 6.000 | 1831.73577 | 233.86908 | 1085.25099 | .27371 | .28327 | .30171 | .28327 | .30171 | .03401 | .03504 | .03586 |
| 8.000 | 1834.07391 | 234.17432 | 1085.67477 | .26159 | .27065 | .28719 | .27065 | .28719 | .02937 | .03020 | .03109 |
| 10.000 | 1836.11595 | 234.42052 | 1087.81444 | .25525 | .26293 | .27759 | .26293 | .27759 | .02959 | .02992 | .03032 |
| 12.000 | 1836.10439 | 234.41899 | 1087.80734 | .24827 | .25775 | .26976 | .25775 | .26976 | .02901 | .02922 | .02955 |
| 14.000 | 1841.38962 | 235.10691 | 1090.99360 | .24037 | .24845 | .26293 | .24845 | .26293 | .02798 | .02875 | .03012 |
| 16.000 | 1849.86311 | 236.19734 | 1096.05969 | .23167 | .23918 | .25410 | .23918 | .25410 | .02054 | .02108 | .02290 |
| 18.000 | 1849.98158 | 236.21837 | 1093.15729 | .22149 | .22825 | .24410 | .22825 | .24410 | .01636 | .01677 | .01772 |
| 20.000 | 1845.65546 | 235.66034 | 1093.56539 | .20821 | .21422 | .22751 | .21422 | .22751 | .01475 | .01511 | .01583 |
| 22.000 | 1847.52986 | 235.89350 | 1094.55019 | .19437 | .20025 | .21236 | .20025 | .21236 | .00618 | .00633 | .00666 |
| 24.000 | 1848.52892 | 236.04575 | 1095.35625 | .18372 | .19003 | .20086 | .19003 | .20086 | .00376 | .00387 | .00405 |
| GRADIENT | .00000 | -.86914 | -.49091 | -.00254 | -.00342 | -.00333 | -.00342 | -.00333 | .00092 | .00088 | .00095 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | ALPHA | BETA | PT | P | OCOMP | DPO11 | DPO21 | DPO31 | DPO13 | DPO23 | DPO33 |
|--------------|------------|-----------|------------|---------|---------|---------|---------|---------|--------|--------|--------|
| .000 | 2059.36877 | 178.11419 | 1069.00958 | .27000 | .26958 | .31843 | .26958 | .31843 | .03095 | .03273 | .03531 |
| 2.000 | 2058.46529 | 178.03863 | 1068.56612 | .26860 | .26702 | .31653 | .26702 | .31653 | .03663 | .03856 | .04180 |
| 4.000 | 2059.33249 | 178.11115 | 1068.99139 | .26377 | .26321 | .31245 | .26321 | .31245 | .03975 | .04081 | .04416 |
| 6.000 | 2059.45581 | 178.12163 | 1069.05426 | .26093 | .27587 | .30400 | .27587 | .30400 | .03677 | .03849 | .04162 |
| 8.000 | 2058.44626 | 179.03483 | 1068.53333 | .25456 | .26866 | .29436 | .26866 | .29436 | .03639 | .03807 | .04048 |
| 10.000 | 2059.21469 | 178.10055 | 1068.92778 | .25061 | .26316 | .28504 | .26316 | .28504 | .03643 | .03793 | .03887 |
| 12.000 | 2058.72852 | 178.05887 | 1068.67758 | .24705 | .25887 | .27995 | .25887 | .27995 | .03508 | .03646 | .03699 |
| 14.000 | 2058.34539 | 178.02505 | 1069.47466 | .24472 | .25758 | .27445 | .25758 | .27445 | .03491 | .03491 | .03491 |
| 16.000 | 2059.73508 | 178.14456 | 1069.19247 | .24069 | .25204 | .27647 | .25204 | .27647 | .03492 | .03628 | .03914 |
| 18.000 | 2058.78250 | 178.05276 | 1068.70093 | .23336 | .24257 | .26607 | .24257 | .26607 | .03089 | .03195 | .03446 |
| 20.000 | 2059.63272 | 178.13587 | 1069.13972 | .23704 | .24703 | .26890 | .24703 | .26890 | .02793 | .02890 | .03088 |
| 22.000 | 2058.95166 | 178.07759 | 1069.78992 | .22017 | .22955 | .25055 | .22955 | .25055 | .02159 | .02238 | .02403 |
| 24.000 | 2058.71259 | 178.05585 | 1069.66547 | .23248 | .24221 | .26233 | .24221 | .26233 | .03374 | .03374 | .03374 |
| GRADIENT | .00000 | -.00907 | -.00495 | -.00106 | -.00159 | -.00150 | -.00159 | -.00150 | .00195 | .00202 | .00221 |

TABLATED DATA - 0A161 (ARC 11-97-87-09H)

ARC 11-97-87-09H 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2590.0000 SO.FT. XMRP = 1076.5800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BRF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 SDFLAP = -7.170

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|----------|-------|---------|------------|----------|-----------|---------|---------|---------|--------|--------|--------|
| 2.500 | .000 | 5.00000 | 1487.41808 | 86.98371 | 654.65117 | .27332 | .29713 | .33894 | .03609 | .03861 | .04284 |
| 2.000 | .000 | 5.00000 | 1487.53204 | 86.99042 | 654.70170 | .26733 | .29030 | .33050 | .03531 | .03773 | .04186 |
| 4.000 | .000 | 5.00000 | 1487.58735 | 86.99357 | 654.72614 | .26472 | .28539 | .32427 | .03653 | .03883 | .04300 |
| 6.000 | .000 | 5.00000 | 1487.58563 | 86.99354 | 654.72516 | .26090 | .28037 | .31845 | .03920 | .04158 | .04606 |
| 8.000 | .000 | 5.00000 | 1487.63661 | 86.99529 | 654.73832 | .25433 | .27159 | .30596 | .03997 | .04114 | .04543 |
| 10.000 | .000 | 5.00000 | 1487.63736 | 86.99730 | 654.75346 | .24962 | .26479 | .29595 | .03732 | .03919 | .04290 |
| 12.000 | .000 | 5.00000 | 1487.63515 | 86.99718 | 654.75260 | .24394 | .25807 | .28565 | .03534 | .03708 | .04031 |
| 14.000 | .000 | 5.00000 | 1487.64052 | 86.99771 | 654.75657 | .23657 | .25104 | .27664 | .03365 | .03535 | .03828 |
| 16.000 | .000 | 5.00000 | 1487.63156 | 86.99771 | 654.75660 | .22923 | .24645 | .27144 | .03290 | .03433 | .03717 |
| 18.000 | .000 | 5.00000 | 1487.64584 | 86.99899 | 654.76619 | .22952 | .24645 | .26251 | .03107 | .03223 | .03473 |
| 20.000 | .000 | 5.00000 | 1487.64817 | 86.99842 | 654.74684 | .22272 | .23306 | .25236 | .02840 | .02950 | .03157 |
| 22.000 | .000 | 5.00000 | 1487.61295 | 86.99621 | 654.74979 | .21637 | .22599 | .24501 | .02559 | .02655 | .02839 |
| 24.000 | .000 | 5.00000 | 1487.57954 | 86.99521 | 654.73773 | .21459 | .22356 | .24025 | .02247 | .02326 | .02469 |
| GRADIENT | | .00000 | .04233 | .00249 | .01874 | -.00215 | -.00294 | -.00367 | .00011 | .00005 | .00004 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|----------|-------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| 3.000 | .000 | 5.00000 | 1939.46461 | 51.12282 | 565.46770 | .24199 | .27518 | .33463 | .03108 | .03454 | .04036 |
| 2.000 | .000 | 5.00000 | 1937.72949 | 51.07915 | 564.97363 | .23793 | .26973 | .32919 | .03161 | .03605 | .04110 |
| 4.000 | .000 | 5.00000 | 1938.05081 | 51.08625 | 565.06321 | .23103 | .26092 | .31779 | .03027 | .03446 | .03923 |
| 6.000 | .000 | 5.00000 | 1938.52211 | 51.09901 | 565.20436 | .22805 | .25518 | .31075 | .03100 | .03404 | .03892 |
| 8.000 | .000 | 5.00000 | 1938.14912 | 51.09524 | 565.16261 | .22321 | .24632 | .29753 | .03085 | .03351 | .03809 |
| 10.000 | .000 | 5.00000 | 1938.11229 | 51.09643 | 565.17573 | .21907 | .24083 | .28680 | .03013 | .03282 | .03764 |
| 12.000 | .000 | 5.00000 | 1937.93176 | 51.09222 | 565.12921 | .21415 | .23341 | .27424 | .02904 | .03172 | .03656 |
| 14.000 | .000 | 5.00000 | 1938.21223 | 51.10291 | 565.24744 | .20915 | .22673 | .26495 | .02789 | .03085 | .03522 |
| 16.000 | .000 | 5.00000 | 1938.80711 | 51.12403 | 565.48102 | .20517 | .22073 | .25557 | .02680 | .02910 | .03346 |
| 18.000 | .000 | 5.00000 | 1938.64461 | 51.12433 | 565.48442 | .20332 | .21675 | .24940 | .02567 | .02710 | .03008 |
| 20.000 | .000 | 5.00000 | 1938.51359 | 51.11730 | 565.40661 | .19985 | .21296 | .24177 | .02562 | .02705 | .02946 |
| 22.000 | .000 | 5.00000 | 1938.80377 | 51.12642 | 565.50747 | .19625 | .20861 | .23430 | .02400 | .02400 | .02546 |
| 24.000 | .000 | 5.00000 | 1938.09142 | 51.11131 | 565.34034 | .19771 | .21067 | .23341 | .02181 | .02302 | .02528 |
| GRADIENT | | .00000 | -.35345 | -.00914 | -.10112 | -.00274 | -.00357 | -.00421 | -.00020 | -.00027 | -.00028 |

TABLATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBLIER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
A1LRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

MACH = 3.500
ALPHA = 2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
18.000
20.000
22.000
24.000
GRADIENT = -5.00/ 5.00

RVL = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | P | OCOMP | DP011 | DP021 | DP031 | DP013 | DP023 | DP033 |
|----------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| 3.500 | 5.00000 | 2683.02945 | 35.14780 | 535.72283 | .24257 | .28723 | .36827 | .03452 | .03965 | .04562 |
| 2.000 | 5.00000 | 2682.78683 | 35.14482 | 535.67736 | .23484 | .27722 | .35772 | .03314 | .03800 | .04550 |
| 4.000 | 5.00000 | 2680.96332 | 35.12155 | 535.52269 | .22903 | .26976 | .34560 | .03356 | .03845 | .04586 |
| 6.000 | 5.00000 | 2682.65059 | 35.14306 | 535.65053 | .22599 | .26148 | .33727 | .03447 | .03893 | .04777 |
| 8.000 | 5.00000 | 2680.66055 | 35.11761 | 535.26256 | .22198 | .25137 | .32183 | .03362 | .03731 | .04558 |
| 10.000 | 5.00000 | 2682.31409 | 35.13648 | 535.58065 | .21875 | .24670 | .30981 | .03430 | .03799 | .04570 |
| 12.000 | 5.00000 | 2680.79222 | 35.11946 | 535.29087 | .21459 | .23916 | .29480 | .03446 | .03776 | .04495 |
| 14.000 | 5.00000 | 2681.94269 | 35.13391 | 535.51109 | .20895 | .23126 | .28218 | .03190 | .03630 | .04197 |
| 16.000 | 5.00000 | 2680.82374 | 35.11978 | 535.28040 | .20577 | .22496 | .27373 | .03273 | .03603 | .04083 |
| 18.000 | 5.00000 | 2690.17957 | 35.11156 | 535.17036 | .20732 | .22458 | .26992 | .02989 | .03197 | .03672 |
| 20.000 | 5.00000 | 2692.18320 | 35.13711 | 535.55972 | .20305 | .21973 | .25937 | .03011 | .03233 | .03655 |
| 22.000 | 5.00000 | 2680.60205 | 35.11565 | 535.23274 | .20337 | .22108 | .25606 | .03011 | .03233 | .03672 |
| 24.000 | 5.00000 | 2680.41901 | 35.11479 | 535.21957 | .20259 | .22079 | .25263 | .02886 | .03104 | .03473 |
| GRADIENT | .00000 | -5.1654 | -0.0956 | -1.1005 | -0.0339 | -0.0437 | -0.0567 | -0.0024 | -0.0030 | -0.0034 |

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OF POOR QUALITY

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER + RAKES.

(EE7X03) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. > = 1076.6800 IN. XO
LREF = 474.8000 IN. .4P = .0000 IN. YO
SPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

MACH = 1.200 RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|-------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.200 | .000 | -5.0000 | 2008.91339 | 828.82202 | 1166.55822 | .77992 | .77982 | .77886 | .99284 | .98275 | .99195 |
| 2.000 | .000 | -5.0000 | 2009.58676 | 829.57557 | 1166.22134 | .78256 | .78226 | .78124 | .98644 | .98616 | .98632 |
| 4.000 | .000 | -5.0000 | 2012.39209 | 829.41618 | 1167.40450 | .78745 | .78727 | .78620 | .97945 | .97928 | .97937 |
| 6.000 | .000 | -5.0000 | 2007.30358 | 829.01813 | 1165.43674 | .78750 | .78727 | .78655 | .97217 | .97217 | .97164 |
| 8.000 | .000 | -5.0000 | 2005.19105 | 827.76439 | 1165.08044 | .78971 | .78965 | .78946 | .97698 | .97693 | .97591 |
| 10.000 | .000 | -5.0000 | 1999.63934 | 826.38300 | 1163.13528 | .79207 | .79189 | .79080 | .98052 | .98037 | .97944 |
| 12.000 | .000 | -5.0000 | 2001.65516 | 826.74893 | 1163.63826 | .80036 | .80039 | .79947 | .98959 | .98961 | .98882 |
| 14.000 | .000 | -5.0000 | 2001.00822 | 825.64796 | 1163.53826 | .80581 | .80575 | .80575 | 1.00326 | 1.00339 | 1.00235 |
| 16.000 | .000 | -5.0000 | 1999.43224 | 825.30900 | 1163.03114 | .81573 | .81546 | .81456 | 1.01616 | 1.01593 | 1.01525 |
| 18.000 | .000 | -5.0000 | 2003.10523 | 827.20449 | 1164.29153 | .83281 | .83281 | .83206 | 1.02749 | 1.02762 | 1.02697 |
| 20.000 | .000 | -5.0000 | 2002.65502 | 825.60385 | 1163.47430 | .84482 | .84516 | .84390 | 1.03551 | 1.03590 | 1.03480 |
| 22.000 | .000 | -5.0000 | 1936.12405 | 825.85847 | 1162.11552 | .85617 | .85616 | .85474 | 1.04509 | 1.04529 | 1.04383 |
| 24.000 | .000 | -5.0000 | 1935.54181 | 825.41549 | 1161.77493 | .87462 | .87619 | .87323 | 1.05515 | 1.05554 | 1.05392 |
| GRADIENT | | .00000 | .86667 | .14954 | .20908 | .50168 | .60186 | .60183 | -.00335 | -.00337 | -.00340 |

| MACH | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | -5.0000 | 1578.31139 | 400.01955 | 1042.32884 | 1.00569 | 1.00022 | .98852 | 1.33843 | 1.33298 | 1.32219 |
| 2.000 | .000 | -5.0000 | 1578.99117 | 400.18729 | 1042.76854 | 1.00476 | .99835 | .99131 | 1.33122 | 1.32484 | 1.31788 |
| 4.000 | .000 | -5.0000 | 1577.32025 | 399.79339 | 1041.71757 | 1.00653 | 1.00018 | .99379 | 1.32621 | 1.31979 | 1.31347 |
| 6.000 | .000 | -5.0000 | 1577.34309 | 399.79176 | 1041.73790 | 1.01169 | 1.00623 | .99829 | 1.32088 | 1.31544 | 1.30759 |
| 8.000 | .000 | -5.0000 | 1576.35994 | 400.03287 | 1042.36615 | 1.01647 | 1.01222 | 1.00184 | 1.32193 | 1.31769 | 1.31078 |
| 10.000 | .000 | -5.0000 | 1575.77289 | 399.39394 | 1040.70128 | 1.02252 | 1.01816 | 1.00870 | 1.32224 | 1.31787 | 1.31064 |
| 12.000 | .000 | -5.0000 | 1575.64324 | 399.36281 | 1040.63941 | 1.02778 | 1.02425 | 1.01613 | 1.32355 | 1.31999 | 1.31185 |
| 14.000 | .000 | -5.0000 | 1575.95390 | 399.44687 | 1040.83922 | 1.03549 | 1.03161 | 1.02407 | 1.32718 | 1.32326 | 1.31590 |
| 16.000 | .000 | -5.0000 | 1575.97449 | 399.45256 | 1040.85405 | 1.04158 | 1.03855 | 1.03107 | 1.33276 | 1.32868 | 1.32112 |
| 18.000 | .000 | -5.0000 | 1575.57609 | 399.52647 | 1041.04653 | 1.05195 | 1.04926 | 1.04299 | 1.33653 | 1.33389 | 1.32750 |
| 20.000 | .000 | -5.0000 | 1575.61670 | 399.41241 | 1040.74942 | 1.06078 | 1.05803 | 1.05148 | 1.33467 | 1.33188 | 1.32519 |
| 22.000 | .000 | -5.0000 | 1575.60844 | 399.41516 | 1040.75695 | 1.06949 | 1.06696 | 1.06196 | 1.33267 | 1.32997 | 1.32486 |
| 24.000 | .000 | -5.0000 | 1576.42549 | 399.57412 | 1041.17079 | 1.07929 | 1.07649 | 1.07433 | 1.32867 | 1.32579 | 1.32059 |
| GRADIENT | | .00000 | -.24779 | -.05863 | -.15279 | .00024 | -.00001 | .00112 | -.00306 | -.00350 | -.00218 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(EETX03) (02 AUG 76)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -5.000
 AIRLON = .000
 ELEVON = .000
 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M1 | M2 | M3 | M3 | M3 |
|-------|----------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|
| 1.750 | .000 | -5.00000 | 1643.42418 | 309.79275 | 1066.72121 | 1.05382 | .04457 | 1.02349 | 1.44718 | 1.41538 |
| | 2.000 | -5.00000 | 1650.93597 | 310.03348 | 1067.72229 | 1.05691 | .04551 | 1.02267 | 1.44508 | 1.40922 |
| | 4.000 | -5.00000 | 1653.24094 | 309.94633 | 1067.25003 | 1.05939 | .04551 | 1.02680 | 1.43845 | 1.40435 |
| | 6.000 | -5.00000 | 1649.94432 | 309.89394 | 1067.06963 | 1.06341 | .05499 | 1.03491 | 1.43216 | 1.40232 |
| | 8.000 | -5.00000 | 1650.82304 | 310.06269 | 1067.65071 | 1.06951 | .06317 | 1.04567 | 1.43881 | 1.41369 |
| | 10.000 | -5.00000 | 1651.44762 | 309.98747 | 1067.39171 | 1.07633 | 1.07770 | 1.05454 | 1.43641 | 1.41857 |
| | 12.000 | -5.00000 | 1651.41577 | 310.17471 | 1068.03642 | 1.08273 | 1.07770 | 1.06336 | 1.43902 | 1.41861 |
| | 14.000 | -5.00000 | 1651.02856 | 310.09678 | 1067.76807 | 1.08943 | 1.08420 | 1.07161 | 1.44039 | 1.42147 |
| | 16.000 | -5.00000 | 1650.14075 | 309.92978 | 1067.19304 | 1.09635 | 1.09126 | 1.08004 | 1.43944 | 1.42250 |
| | 18.000 | -5.00000 | 1650.84254 | 310.06318 | 1067.65240 | 1.10473 | 1.09922 | 1.08980 | 1.43647 | 1.42062 |
| | 20.000 | -5.00000 | 1651.38724 | 310.16493 | 1068.00276 | 1.11652 | 1.11090 | 1.10063 | 1.43088 | 1.41339 |
| | 22.000 | -5.00000 | 1651.57825 | 310.20011 | 1068.12389 | 1.12557 | 1.11930 | 1.10721 | 1.42847 | 1.41499 |
| | 24.000 | -5.00000 | 1651.58163 | 310.20077 | 1068.12617 | 1.13274 | 1.12673 | 1.11257 | 1.42587 | 1.41045 |
| | GRADIENT | .00000 | .20419 | .03840 | .13221 | .00139 | .00098 | .00083 | -.00218 | -.00276 |

MACH = 2.000

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | P | OCOMP | M1 | M2 | M3 | M3 | M3 | M3 |
|----------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| .000 | -5.00000 | 1647.06216 | 235.97826 | 1095.04305 | 1.15881 | 1.14294 | 1.10666 | 1.63427 | 1.61591 | 1.57460 |
| 2.000 | -5.00000 | 1648.00623 | 236.10478 | 1095.63014 | 1.16724 | 1.15044 | 1.10669 | 1.62841 | 1.60915 | 1.56958 |
| 4.000 | -5.00000 | 1647.42177 | 235.02850 | 1095.27618 | 1.16647 | 1.15111 | 1.10769 | 1.62535 | 1.60776 | 1.56868 |
| 6.000 | -5.00000 | 1646.95721 | 235.95262 | 1094.97344 | 1.16937 | 1.15816 | 1.12747 | 1.62283 | 1.61002 | 1.57516 |
| 8.000 | -5.00000 | 1646.93805 | 235.95757 | 1094.99344 | 1.17442 | 1.16358 | 1.13622 | 1.62507 | 1.61255 | 1.58155 |
| 10.000 | -5.00000 | 1646.46345 | 235.69915 | 1094.67596 | 1.17545 | 1.16527 | 1.14125 | 1.62141 | 1.60976 | 1.58247 |
| 12.000 | -5.00000 | 1646.51515 | 235.90250 | 1094.69148 | 1.18234 | 1.17879 | 1.14720 | 1.61869 | 1.60730 | 1.58339 |
| 14.000 | -5.00000 | 1646.62762 | 235.91659 | 1094.75682 | 1.20274 | 1.19187 | 1.15171 | 1.60921 | 1.59965 | 1.57739 |
| 16.000 | -5.00000 | 1646.02921 | 235.83774 | 1094.39095 | 1.20884 | 1.19853 | 1.18184 | 1.61170 | 1.59939 | 1.58111 |
| 18.000 | -5.00000 | 1646.55056 | 235.87904 | 1094.58261 | 1.20860 | 1.19939 | 1.18543 | 1.61345 | 1.60299 | 1.58716 |
| 20.000 | -5.00000 | 1646.48618 | 235.94551 | 1094.89108 | 1.20510 | 1.20548 | 1.19114 | 1.60785 | 1.59695 | 1.58076 |
| 22.000 | -5.00000 | 1647.20576 | 235.93882 | 1094.99203 | 1.22833 | 1.21768 | 1.20125 | 1.59261 | 1.58064 | 1.56225 |
| 24.000 | -5.00000 | 1646.30110 | 235.83439 | 1094.37541 | 1.25356 | 1.24306 | 1.22134 | 1.59130 | 1.57945 | 1.55525 |
| GRADIENT | .00000 | .38990 | .01236 | .05829 | .00189 | .00204 | .00204 | -.00223 | -.00204 | -.00398 |

(EE7X03) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER + RAKES

REFERENCE DATA

SPEE = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -5.000 ELEVON = .000
AFLRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA .000 | -5.00000 | 2051.52133 | 177.43511 | 1064.93391 | 1.27004 | 1.24682 | 1.18897 | 1.84203 | 1.81348 | 1.74321 |
| 2.000 | -5.00000 | 2050.73444 | 177.36766 | 1064.52908 | 1.27105 | 1.24634 | 1.18713 | 1.84539 | 1.81743 | 1.74309 |
| 4.000 | -5.00000 | 2050.90634 | 177.38244 | 1064.61781 | 1.26951 | 1.24919 | 1.19097 | 1.83458 | 1.80966 | 1.73908 |
| 6.000 | -5.00000 | 2050.73329 | 177.36738 | 1064.52737 | 1.27587 | 1.25971 | 1.21286 | 1.82427 | 1.80454 | 1.74787 |
| 8.000 | -5.00000 | 2051.17939 | 177.40587 | 1064.75842 | 1.28930 | 1.27179 | 1.23176 | 1.82440 | 1.80440 | 1.75595 |
| 10.000 | -5.00000 | 2051.78479 | 177.45775 | 1065.06981 | 1.29485 | 1.27960 | 1.24228 | 1.81665 | 1.79419 | 1.75328 |
| 12.000 | -5.00000 | 2052.45539 | 177.51393 | 1065.40637 | 1.30423 | 1.28732 | 1.25597 | 1.81222 | 1.79223 | 1.75162 |
| 14.000 | -5.00000 | 2054.13220 | 177.65454 | 1065.25092 | 1.30423 | 1.28435 | 1.25792 | 1.80675 | 1.78914 | 1.75142 |
| 16.000 | -5.00000 | 2055.24664 | 177.75452 | 1065.85094 | 1.30821 | 1.29230 | 1.26420 | 1.80407 | 1.78485 | 1.75138 |
| 18.000 | -5.00000 | 2055.50338 | 177.81194 | 1067.19557 | 1.31783 | 1.30025 | 1.27624 | 1.79785 | 1.77684 | 1.74829 |
| 20.000 | -5.00000 | 2055.49169 | 177.77533 | 1066.98185 | 1.33152 | 1.31416 | 1.29262 | 1.79948 | 1.77682 | 1.75327 |
| 22.000 | -5.00000 | 2055.36655 | 177.76571 | 1065.21809 | 1.33493 | 1.31651 | 1.29159 | 1.77966 | 1.75903 | 1.72653 |
| 24.000 | -5.00000 | 2055.59188 | 177.85969 | 1067.54214 | 1.38469 | 1.36648 | 1.33429 | 1.65171 | 1.62991 | 1.59156 |
| GRADIENT | .00000 | -.15373 | -.01317 | -.107902 | -.00013 | .00059 | .00050 | -.00186 | -.00095 | -.00103 |

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA .000 | -5.00000 | 1499.56390 | 87.64465 | 659.62552 | 1.33085 | 1.31138 | 1.23850 | 1.95540 | 1.93072 | 1.83939 |
| 2.000 | -5.00000 | 1497.87276 | 87.60338 | 659.31491 | 1.32888 | 1.31107 | 1.23969 | 1.95433 | 1.93175 | 1.84222 |
| 4.000 | -5.00000 | 1497.09436 | 87.55775 | 659.37150 | 1.33355 | 1.31694 | 1.25191 | 1.94282 | 1.92189 | 1.84270 |
| 6.000 | -5.00000 | 1497.75047 | 87.59612 | 659.26024 | 1.33557 | 1.32156 | 1.26231 | 1.94719 | 1.92948 | 1.85532 |
| 8.000 | -5.00000 | 1497.64230 | 87.60144 | 659.30032 | 1.34085 | 1.32691 | 1.27393 | 1.93555 | 1.91815 | 1.85217 |
| 10.000 | -5.00000 | 1497.81511 | 87.59321 | 659.22880 | 1.34694 | 1.33128 | 1.28064 | 1.93259 | 1.91300 | 1.85011 |
| 12.000 | -5.00000 | 1497.81754 | 87.59329 | 659.22856 | 1.34647 | 1.32823 | 1.28226 | 1.90710 | 1.88453 | 1.83412 |
| 14.000 | -5.00000 | 1497.76598 | 87.59754 | 659.27169 | 1.35763 | 1.33762 | 1.30235 | 1.90770 | 1.88301 | 1.83973 |
| 16.000 | -5.00000 | 1497.77367 | 87.59656 | 659.26350 | 1.36537 | 1.34369 | 1.30339 | 1.90614 | 1.87947 | 1.83974 |
| 18.000 | -5.00000 | 1497.77548 | 87.59638 | 659.26370 | 1.37446 | 1.35185 | 1.32034 | 1.90007 | 1.87243 | 1.83404 |
| 20.000 | -5.00000 | 1497.79357 | 87.59782 | 659.27309 | 1.39528 | 1.36130 | 1.32940 | 1.90794 | 1.87650 | 1.83979 |
| 22.000 | -5.00000 | 1497.81233 | 87.59903 | 659.28218 | 1.39630 | 1.37275 | 1.34110 | 1.90276 | 1.87412 | 1.83580 |
| 24.000 | -5.00000 | 1497.82333 | 87.59925 | 659.28389 | 1.42586 | 1.38355 | 1.35270 | 1.89590 | 1.85804 | 1.82623 |
| GRADIENT | .00000 | -.36733 | -.02172 | -.16350 | .00067 | .00139 | .00335 | -.00315 | -.00221 | -.00253 |

(EET7X03) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILLON = .000 BOFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-084)
ARC 11-97-87-084 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|--------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| .000 | 0.000 | -5.00000 | 1933.56339 | 51.10074 | 565.22348 | 1.45858 | 1.43843 | 1.31665 | 2.22633 | 2.19808 | 2.03674 |
| 2.000 | 2.000 | -5.00000 | 1933.15035 | 51.09178 | 565.12438 | 1.46350 | 1.44172 | 1.33607 | 2.23032 | 2.20080 | 2.05183 |
| 4.000 | 4.000 | -5.00000 | 1935.15075 | 51.11307 | 565.35288 | 1.46702 | 1.44687 | 1.34559 | 2.22696 | 2.20043 | 2.06615 |
| 6.000 | 6.000 | -5.00000 | 1936.50783 | 51.12482 | 565.48977 | 1.46989 | 1.44978 | 1.35871 | 2.23356 | 2.20544 | 2.08475 |
| 8.000 | 8.000 | -5.00000 | 1936.47931 | 51.12357 | 565.47600 | 1.47544 | 1.44978 | 1.37357 | 2.22832 | 2.19203 | 2.10241 |
| 10.000 | 10.000 | -5.00000 | 1936.30977 | 51.12127 | 565.45056 | 1.48383 | 1.45769 | 1.38992 | 2.21255 | 2.17778 | 2.11907 |
| 12.000 | 12.000 | -5.00000 | 1936.05462 | 51.11445 | 565.34191 | 1.49810 | 1.46031 | 1.40531 | 2.18451 | 2.16451 | 2.13716 |
| 14.000 | 14.000 | -5.00000 | 1935.75789 | 51.09733 | 565.18574 | 1.49889 | 1.46333 | 1.42531 | 2.15674 | 2.14889 | 2.15353 |
| 16.000 | 16.000 | -5.00000 | 1935.34929 | 51.08156 | 565.01133 | 1.50855 | 1.46309 | 1.44448 | 2.12205 | 2.14113 | 2.16993 |
| 18.000 | 18.000 | -5.00000 | 1935.29300 | 51.07934 | 564.98677 | 1.52282 | 1.46205 | 1.46205 | 2.08211 | 2.12635 | 2.18477 |
| 20.000 | 20.000 | -5.00000 | 1934.35159 | 51.05967 | 564.76923 | 1.53220 | 1.46200 | 1.47376 | 2.02551 | 2.10697 | 2.20477 |
| 22.000 | 22.000 | -5.00000 | 1934.81850 | 51.03533 | 564.34459 | 1.54490 | 1.46242 | 1.48525 | 2.00109 | 2.11564 | 2.22735 |
| 24.000 | 24.000 | -5.00000 | 1934.05480 | 51.04761 | 564.63582 | 1.55375 | 1.51317 | 1.49278 | | | |
| GRADIENT | | .00000 | .12834 | .00308 | .03410 | .00211 | .00278 | .00748 | .00016 | .00109 | .00735 |

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|--------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| .000 | 0.000 | -5.00000 | 2547.37308 | 33.35888 | 508.50840 | 1.51818 | 1.48768 | 1.33085 | 2.40634 | 2.35957 | 2.14186 |
| 2.000 | 2.000 | -5.00000 | 2547.81790 | 33.37489 | 508.70000 | 1.52665 | 1.48842 | 1.34992 | 2.40452 | 2.36205 | 2.15886 |
| 4.000 | 4.000 | -5.00000 | 2546.94196 | 33.35374 | 508.53317 | 1.53374 | 1.48308 | 1.37669 | 2.41054 | 2.36750 | 2.18551 |
| 6.000 | 6.000 | -5.00000 | 2547.50005 | 33.37128 | 508.64510 | 1.54498 | 1.50192 | 1.39556 | 2.39367 | 2.34910 | 2.18756 |
| 8.000 | 8.000 | -5.00000 | 2547.17203 | 33.35708 | 508.58098 | 1.54277 | 1.50676 | 1.40378 | 2.40151 | 2.35132 | 2.20914 |
| 10.000 | 10.000 | -5.00000 | 2551.35157 | 33.42093 | 509.40276 | 1.55112 | 1.50804 | 1.41159 | 2.38176 | 2.3214 | 2.19289 |
| 12.000 | 12.000 | -5.00000 | 2556.54724 | 33.47840 | 510.24733 | 1.56001 | 1.51288 | 1.42038 | 2.35120 | 2.28273 | 2.17159 |
| 14.000 | 14.000 | -5.00000 | 2562.82321 | 33.51923 | 510.89791 | 1.56917 | 1.51857 | 1.42917 | 2.32539 | 2.24734 | 2.15256 |
| 16.000 | 16.000 | -5.00000 | 2563.65443 | 33.52822 | 511.87094 | 1.58269 | 1.52420 | 1.44917 | 2.30553 | 2.21750 | 2.13227 |
| 18.000 | 18.000 | -5.00000 | 2567.71115 | 33.63502 | 512.67439 | 1.59359 | 1.53258 | 1.45553 | 2.28200 | 2.18932 | 2.11175 |
| 20.000 | 20.000 | -5.00000 | 2572.39271 | 33.69739 | 513.51562 | 1.61384 | 1.54333 | 1.47317 | 2.25521 | 2.16252 | 2.09170 |
| 22.000 | 22.000 | -5.00000 | 2578.11011 | 33.77132 | 514.75153 | 1.63271 | 1.55944 | 1.48869 | 2.22539 | 2.13701 | 2.07130 |
| 24.000 | 24.000 | -5.00000 | 2578.93777 | 33.78332 | 514.92329 | 1.63271 | 1.57576 | 1.49549 | 2.19539 | 2.11201 | 2.05119 |
| GRADIENT | | .00000 | -.10779 | -.00123 | -.01860 | .00309 | .00386 | .01046 | .00205 | .00203 | .01119 |

11-97-87-094

ARC 11-97-87-094 OAI61 ORBITER + RAKES

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILLRON = .000 BDFLAP = -7.170

TABULATED DATA - OAI61 (ARC 11-97-87-094)

REFERENCE DATA

SPEF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | R | OCOMP | MPI | M21 | M31 | M13 | M23 | M33 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | 1.000 | -2.0000 | 1574.43615 | 398.93030 | 1039.23260 | 1.04437 | 1.03922 | 1.02940 | 1.39554 | 1.38032 | 1.37023 |
| 2.000 | 2.000 | -2.0000 | 1573.92516 | 399.70513 | 1038.90645 | 1.04347 | 1.03602 | 1.02997 | 1.37692 | 1.36826 | 1.35826 |
| 4.000 | 4.000 | -2.0000 | 1573.02988 | 399.48754 | 1038.32949 | 1.04683 | 1.03398 | 1.03398 | 1.37142 | 1.36429 | 1.35523 |
| 6.000 | 6.000 | -2.0000 | 1572.57761 | 399.52070 | 1038.69646 | 1.05286 | 1.04589 | 1.04589 | 1.36955 | 1.36232 | 1.35326 |
| 8.000 | 8.000 | -2.0000 | 1572.31930 | 399.81203 | 1039.18500 | 1.05232 | 1.05769 | 1.04795 | 1.37354 | 1.36627 | 1.35720 |
| 10.000 | 10.000 | -2.0000 | 1574.64356 | 398.96485 | 1039.37476 | 1.06812 | 1.06394 | 1.05507 | 1.37359 | 1.36627 | 1.35720 |
| 12.000 | 12.000 | -2.0000 | 1574.64332 | 399.93706 | 1039.51079 | 1.07314 | 1.06954 | 1.06174 | 1.37575 | 1.36841 | 1.36033 |
| 14.000 | 14.000 | -2.0000 | 1574.63332 | 399.87534 | 1039.34988 | 1.08045 | 1.07718 | 1.07044 | 1.38226 | 1.37529 | 1.36683 |
| 16.000 | 16.000 | -2.0000 | 1575.31938 | 399.96665 | 1039.82484 | 1.08625 | 1.08585 | 1.07929 | 1.38676 | 1.37952 | 1.37124 |
| 18.000 | 18.000 | -2.0000 | 1575.31938 | 399.66559 | 1039.84586 | 1.09344 | 1.09336 | 1.08659 | 1.39175 | 1.38452 | 1.37624 |
| 20.000 | 20.000 | -2.0000 | 1574.64332 | 399.93706 | 1039.51079 | 1.10444 | 1.10444 | 1.09773 | 1.39726 | 1.38999 | 1.38173 |
| 22.000 | 22.000 | -2.0000 | 1574.64332 | 399.78766 | 1039.96318 | 1.1324 | 1.10361 | 1.09492 | 1.39726 | 1.38999 | 1.38173 |
| 24.000 | 24.000 | -2.0000 | 1574.64332 | 399.94400 | 1039.52890 | 1.12229 | 1.11879 | 1.11423 | 1.39726 | 1.38999 | 1.38173 |
| GRADIENT | | | | | | .00261 | .00017 | .00115 | -.00355 | -.00401 | -.00300 |

PN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | R | OCOMP | MPI | M21 | M31 | M13 | M23 | M33 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | 1.000 | -2.0000 | 1650.91153 | 310.07685 | 1067.69946 | 1.10169 | 1.09123 | 1.05939 | 1.50059 | 1.48320 | 1.46561 |
| 2.000 | 2.000 | -2.0000 | 1652.84775 | 310.44413 | 1068.96416 | 1.10761 | 1.09444 | 1.05989 | 1.49824 | 1.48357 | 1.46734 |
| 4.000 | 4.000 | -2.0000 | 1653.65585 | 310.63159 | 1069.60992 | 1.10677 | 1.09529 | 1.07052 | 1.49654 | 1.48434 | 1.46745 |
| 6.000 | 6.000 | -2.0000 | 1654.39299 | 310.72412 | 1069.92824 | 1.11001 | 1.10202 | 1.08134 | 1.49384 | 1.48515 | 1.46880 |
| 8.000 | 8.000 | -2.0000 | 1653.73941 | 310.62094 | 1069.57295 | 1.11176 | 1.10978 | 1.09151 | 1.49465 | 1.48537 | 1.46919 |
| 10.000 | 10.000 | -2.0000 | 1654.31114 | 310.72321 | 1069.92749 | 1.11346 | 1.11346 | 1.10340 | 1.49716 | 1.48729 | 1.47100 |
| 12.000 | 12.000 | -2.0000 | 1656.32827 | 310.90964 | 1070.56705 | 1.12897 | 1.12897 | 1.11573 | 1.49734 | 1.48739 | 1.47100 |
| 14.000 | 14.000 | -2.0000 | 1656.32827 | 310.79338 | 1070.78523 | 1.13194 | 1.13194 | 1.12335 | 1.49999 | 1.49049 | 1.47319 |
| 16.000 | 16.000 | -2.0000 | 1654.31114 | 310.63346 | 1070.38539 | 1.12849 | 1.12849 | 1.13216 | 1.50005 | 1.49029 | 1.47319 |
| 18.000 | 18.000 | -2.0000 | 1654.31114 | 310.35767 | 1070.76589 | 1.13596 | 1.13596 | 1.14077 | 1.50226 | 1.49314 | 1.47538 |
| 20.000 | 20.000 | -2.0000 | 1657.69339 | 311.24283 | 1071.71434 | 1.16769 | 1.16076 | 1.14765 | 1.49786 | 1.49229 | 1.47538 |
| 22.000 | 22.000 | -2.0000 | 1657.69339 | 311.35872 | 1072.11437 | 1.17554 | 1.17541 | 1.15731 | 1.49732 | 1.49229 | 1.47538 |
| 24.000 | 24.000 | -2.0000 | 1657.51353 | 311.32706 | 1072.00642 | 1.18249 | 1.18320 | 1.16711 | 1.50468 | 1.49802 | 1.48249 |
| GRADIENT | | | | | | .13871 | .00127 | .00031 | -.00191 | -.00129 | -.00200 |

TABULATED DATA - 0A161 (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A161 ORBITER + RAKES

(EETX04) (02 AUG 75)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -2.170

REFERENCE DATA

SPEF = 2590.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | | | | | | | | | | |
| .000 | -2.00000 | 1845.93443 | 235.90358 | 1094.69649 | 1.19766 | 1.17789 | 1.14057 | 1.70979 | 1.5643 | 1.64288 |
| 2.000 | -2.00000 | 1846.41615 | 235.83478 | 1094.37723 | 1.20135 | 1.18282 | 1.14142 | 1.70496 | 1.68313 | 1.63491 |
| 4.000 | -2.00000 | 1846.47842 | 235.84348 | 1094.41763 | 1.20614 | 1.18918 | 1.14770 | 1.70012 | 1.68917 | 1.63194 |
| 6.000 | -2.00000 | 1847.01898 | 235.91540 | 1094.75133 | 1.21466 | 1.19824 | 1.16433 | 1.69529 | 1.67580 | 1.63739 |
| 8.000 | -2.00000 | 1846.99238 | 235.91268 | 1094.73975 | 1.22060 | 1.20419 | 1.17658 | 1.69748 | 1.67822 | 1.64512 |
| 10.000 | -2.00000 | 1846.95093 | 235.91120 | 1094.73189 | 1.22586 | 1.21216 | 1.18753 | 1.69857 | 1.68251 | 1.65382 |
| 12.000 | -2.00000 | 1846.64996 | 235.86971 | 1094.53934 | 1.23107 | 1.21912 | 1.19507 | 1.69284 | 1.68207 | 1.65207 |
| 14.000 | -2.00000 | 1846.59160 | 235.85956 | 1094.49269 | 1.23525 | 1.22559 | 1.20369 | 1.68937 | 1.67571 | 1.65295 |
| 16.000 | -2.00000 | 1847.17949 | 235.94132 | 1094.67161 | 1.23925 | 1.23159 | 1.21089 | 1.68612 | 1.67492 | 1.65005 |
| 18.000 | -2.00000 | 1846.84877 | 235.63649 | 1094.66362 | 1.24250 | 1.23788 | 1.21846 | 1.68506 | 1.67372 | 1.65593 |
| 20.000 | -2.00000 | 1846.81461 | 235.69847 | 1094.62637 | 1.24632 | 1.25185 | 1.23646 | 1.68255 | 1.67372 | 1.65142 |
| 22.000 | -2.00000 | 1847.35541 | 235.95847 | 1094.95123 | 1.25037 | 1.26453 | 1.24242 | 1.69396 | 1.67893 | 1.65940 |
| 24.000 | -2.00000 | 1846.02296 | 235.78710 | 1094.15599 | 1.30250 | 1.29023 | 1.26230 | 1.69735 | 1.69320 | 1.65115 |
| GRADIENT | .00000 | -1.11399 | -0.01502 | -0.06971 | .00212 | .00283 | .00178 | -.00242 | -.00157 | -.00274 |

| MACH = 2.250 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | | | | | | | | | | |
| .000 | -2.00000 | 2060.32037 | 178.19294 | 1069.48225 | 1.34957 | 1.31859 | 1.25506 | 1.96235 | 1.92323 | 1.84388 |
| 2.000 | -2.00000 | 2059.99480 | 178.16426 | 1069.31013 | 1.35597 | 1.32596 | 1.26546 | 1.95611 | 1.91698 | 1.84358 |
| 4.000 | -2.00000 | 2059.95003 | 178.12785 | 1069.09161 | 1.35809 | 1.33063 | 1.27255 | 1.95555 | 1.92204 | 1.84385 |
| 6.000 | -2.00000 | 2060.01712 | 178.16592 | 1069.32610 | 1.36017 | 1.33283 | 1.28182 | 1.95307 | 1.91877 | 1.85505 |
| 8.000 | -2.00000 | 2060.34888 | 178.19534 | 1069.43667 | 1.36636 | 1.34090 | 1.29336 | 1.95026 | 1.91842 | 1.85938 |
| 10.000 | -2.00000 | 2060.24549 | 178.18648 | 1069.44347 | 1.37236 | 1.34850 | 1.30412 | 1.94633 | 1.91571 | 1.85153 |
| 12.000 | -2.00000 | 2060.24661 | 178.18653 | 1069.44377 | 1.37622 | 1.35573 | 1.31744 | 1.93832 | 1.91257 | 1.85558 |
| 14.000 | -2.00000 | 2060.47952 | 178.20613 | 1069.56143 | 1.37710 | 1.35768 | 1.32472 | 1.92756 | 1.90355 | 1.86299 |
| 16.000 | -2.00000 | 2060.56393 | 178.21277 | 1069.60732 | 1.39516 | 1.36761 | 1.33764 | 1.92458 | 1.90164 | 1.86509 |
| 18.000 | -2.00000 | 2060.33524 | 178.16944 | 1069.33524 | 1.37794 | 1.37794 | 1.35053 | 1.92315 | 1.90110 | 1.86750 |
| 20.000 | -2.00000 | 2060.44046 | 178.20315 | 1069.54353 | 1.39597 | 1.37917 | 1.34821 | 1.93324 | 1.89159 | 1.87408 |
| 22.000 | -2.00000 | 2060.15353 | 178.17854 | 1069.39586 | 1.41172 | 1.41172 | 1.37395 | 1.96295 | 1.93204 | 1.88273 |
| 24.000 | -2.00000 | 2060.04495 | 178.16928 | 1069.34426 | 1.34782 | 1.32845 | 1.29979 | 1.92503 | 1.92574 | 1.86232 |
| GRADIENT | .00000 | -1.19209 | -0.01627 | -0.09767 | .00213 | .00301 | .00440 | -.00145 | -.00050 | -.00149 |

(EETX04) (02 AUG 78)

TABLATED DATA - 0A161 (ARC 11-97-87-054)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

CREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | ALPHA | BETA | PT | P | QCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|----------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| | .000 | -2.00000 | 1497.77222 | 87.59769 | 659.27209 | 1.36874 | .33342 | 1.24808 | 2.05123 | 2.00534 | .95699 |
| | 2.000 | -2.00000 | 1497.76450 | 87.59732 | 659.26928 | 1.37048 | 1.33627 | 1.25402 | 2.04131 | 1.99704 | 1.69202 |
| | 4.000 | -2.00000 | 1497.76714 | 87.59741 | 659.27001 | 1.37605 | 1.34341 | 1.26694 | 2.04138 | 1.99221 | 1.90159 |
| | 6.000 | -2.00000 | 1497.74226 | 87.59619 | 659.26081 | 1.39232 | 1.35236 | 1.28340 | 2.03421 | 1.99605 | 1.97827 |
| | 8.000 | -2.00000 | 1497.75372 | 87.59682 | 659.26557 | 1.39708 | 1.35963 | 1.29497 | 2.03557 | 2.00031 | 1.91788 |
| | 10.000 | -2.00000 | 1497.67010 | 87.59167 | 659.22676 | 1.39384 | 1.35771 | 1.30653 | 2.02015 | 1.98685 | 1.92963 |
| | 12.000 | -2.00000 | 1498.01534 | 87.51135 | 659.37941 | 1.39488 | 1.37141 | 1.32001 | 2.01948 | 1.99258 | 1.92453 |
| | 14.000 | -2.00000 | 1494.68498 | 87.41497 | 657.89593 | 1.40063 | 1.37784 | 1.33392 | 2.01187 | 1.98217 | 1.92693 |
| | 16.000 | -2.00000 | 1494.60895 | 87.41100 | 657.86705 | 1.40588 | 1.38407 | 1.34400 | 1.99737 | 1.96961 | 1.91845 |
| | 18.000 | -2.00000 | 1495.09078 | 87.43912 | 658.07867 | 1.41592 | 1.39372 | 1.35564 | 1.99539 | 1.96756 | 1.92005 |
| | 20.000 | -2.00000 | 1494.25939 | 87.38984 | 657.70778 | 1.42676 | 1.40411 | 1.36749 | 1.99525 | 1.96705 | 1.92154 |
| | 22.000 | -2.00000 | 1494.70457 | 87.41660 | 657.90315 | 1.43299 | 1.41027 | 1.37613 | 1.99559 | 1.97033 | 1.92791 |
| | 24.000 | -2.00000 | 1494.94550 | 87.43099 | 658.01747 | 1.44770 | 1.42608 | 1.38987 | 1.99264 | 1.96505 | 1.92139 |
| | GRADIENT | .00000 | -.00127 | -.00007 | -.00052 | .00183 | .00250 | .00471 | -.00246 | -.00153 | -.00140 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | QCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|----------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| | .000 | -2.00000 | 1942.79845 | 51.29598 | 567.38300 | 1.52349 | 1.46831 | 1.32827 | 2.37538 | 2.29885 | 1.729 |
| | 2.000 | -2.00000 | 1939.95528 | 51.22303 | 566.57606 | 1.53031 | 1.47753 | 1.34458 | 2.37925 | 2.30600 | 2.12.09 |
| | 4.000 | -2.00000 | 1937.25540 | 51.15163 | 565.78629 | 1.52825 | 1.47800 | 1.35198 | 2.35354 | 2.26437 | 2.11322 |
| | 6.000 | -2.00000 | 1932.91018 | 51.02006 | 564.33104 | 1.53534 | 1.48916 | 1.38107 | 2.36414 | 2.30050 | 2.15315 |
| | 8.000 | -2.00000 | 1931.75623 | 51.01216 | 564.24371 | 1.53500 | 1.49297 | 1.38927 | 2.33859 | 2.28118 | 2.14094 |
| | 10.000 | -2.00000 | 1932.19310 | 51.02143 | 564.34621 | 1.54132 | 1.50349 | 1.40631 | 2.33867 | 2.26709 | 2.15581 |
| | 12.000 | -2.00000 | 1932.51784 | 51.02796 | 564.41837 | 1.54086 | 1.50798 | 1.42221 | 2.31477 | 2.27032 | 2.15524 |
| | 14.000 | -2.00000 | 1931.30788 | 50.98654 | 563.96030 | 1.54779 | 1.51392 | 1.44209 | 2.31496 | 2.26929 | 2.17307 |
| | 16.000 | -2.00000 | 1932.10713 | 51.00635 | 564.17945 | 1.55891 | 1.52339 | 1.45824 | 2.31658 | 2.26836 | 2.18196 |
| | 18.000 | -2.00000 | 1931.43526 | 50.99356 | 564.00479 | 1.56584 | 1.52814 | 1.46578 | 2.30327 | 2.25302 | 2.17036 |
| | 20.000 | -2.00000 | 1931.86769 | 50.99794 | 564.08523 | 1.57845 | 1.53952 | 1.47774 | 2.30954 | 2.25593 | 2.17514 |
| | 22.000 | -2.00000 | 1932.01346 | 51.00587 | 564.17412 | 1.58298 | 1.54365 | 1.48469 | 2.28407 | 2.24216 | 2.16475 |
| | 24.000 | -2.00000 | 1931.72012 | 50.99929 | 564.10132 | 1.58809 | 1.54976 | 1.49315 | 2.28126 | 2.23099 | 2.15715 |
| | GRADIENT | .00000 | -1.38574 | -.03609 | -.39918 | .00121 | .00242 | .00593 | -.00545 | -.00362 | -.00140 |

(EE7X04) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 | GRADIENT |
|----------|--------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|----------|
| 3.500 | .000 | -2.00000 | 2602.07135 | 34.16512 | 520.74471 | 1.61787 | 1.54313 | 1.35262 | 2.59765 | 2.48952 | 2.59765 | 2.21875 |
| 2.000 | 2.000 | -2.00000 | 2609.47937 | 34.18432 | 521.03742 | 1.62079 | 1.55278 | 1.36825 | 2.60185 | 2.50339 | 2.60185 | 2.24060 |
| 4.000 | 4.000 | -2.00000 | 2610.52899 | 34.19799 | 521.24570 | 1.61999 | 1.55831 | 1.38906 | 2.57972 | 2.49247 | 2.57972 | 2.25119 |
| 6.000 | 6.000 | -2.00000 | 2614.11072 | 34.24500 | 521.96236 | 1.62520 | 1.56875 | 1.42338 | 2.58477 | 2.50360 | 2.58477 | 2.29710 |
| 8.000 | 8.000 | -2.00000 | 2614.27722 | 34.24722 | 521.99606 | 1.62717 | 1.57750 | 1.43663 | 2.57224 | 2.50116 | 2.57224 | 2.30173 |
| 10.000 | 10.000 | -2.00000 | 2619.19357 | 34.31230 | 522.96805 | 1.62789 | 1.58309 | 1.45316 | 2.56855 | 2.50452 | 2.56855 | 2.32066 |
| 12.000 | 12.000 | -2.00000 | 2615.71823 | 34.26563 | 522.27669 | 1.63516 | 1.59324 | 1.48134 | 2.55052 | 2.48972 | 2.55052 | 2.33383 |
| 14.000 | 14.000 | -2.00000 | 2617.88397 | 34.29432 | 522.71407 | 1.64059 | 1.59512 | 1.49857 | 2.54155 | 2.47749 | 2.54155 | 2.34245 |
| 16.000 | 16.000 | -2.00000 | 2615.78174 | 34.26626 | 522.28640 | 1.64147 | 1.59237 | 1.49857 | 2.54157 | 2.44313 | 2.54157 | 2.32304 |
| 18.000 | 18.000 | -2.00000 | 2617.10403 | 34.28431 | 522.56139 | 1.63442 | 1.59928 | 1.51584 | 2.49781 | 2.42484 | 2.49781 | 2.30949 |
| 20.000 | 20.000 | -2.00000 | 2615.61575 | 34.26406 | 522.25275 | 1.62734 | 1.60734 | 1.52497 | 2.50134 | 2.42524 | 2.50134 | 2.31257 |
| 22.000 | 22.000 | -2.00000 | 2619.49899 | 34.31592 | 523.04321 | 1.65261 | 1.61431 | 1.53246 | 2.49061 | 2.41477 | 2.49061 | 2.30352 |
| 24.000 | 24.000 | -2.00000 | 2624.04565 | 34.37497 | 523.94329 | 1.67401 | 1.61764 | 1.53960 | 2.48129 | 2.40457 | 2.48129 | 2.29900 |
| GRADIENT | | .00000 | .61442 | .00822 | .12524 | .00053 | .00405 | .00811 | -.00448 | .00074 | -.00811 | |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-57-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = 0.0000 IN. YO
BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILLON = .000 BDFLAP = -7.170

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .600 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|-------------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA | .0000 | 2633.13434 | 2067.16983 | 568.96451 | .56182 | .56196 | .56155 | .64303 | .64315 | .64279 |
| 2.000 | .0000 | 2636.45282 | 2067.42532 | 569.02750 | .56009 | .56008 | .56002 | .63811 | .63810 | .63804 |
| 4.000 | .0000 | 2638.36844 | 2069.84036 | 569.56208 | .56048 | .56058 | .56045 | .63887 | .63886 | .63884 |
| 6.000 | .0000 | 2635.83572 | 2067.24514 | 568.79059 | .55601 | .55624 | .55661 | .63214 | .63234 | .63267 |
| 8.000 | .0000 | 2636.20316 | 2067.24875 | 568.95142 | .55944 | .55910 | .55925 | .63352 | .63366 | .63366 |
| 10.000 | .0000 | 2635.93454 | 2067.14458 | 568.83035 | .56347 | .56388 | .56312 | .63319 | .63355 | .63287 |
| 12.000 | .0000 | 2635.46613 | 2066.78952 | 568.67661 | .56682 | .56671 | .56687 | .63474 | .63464 | .63479 |
| 14.000 | .0000 | 2635.11768 | 2067.19876 | 568.61891 | .57761 | .57722 | .57766 | .63894 | .63853 | .63894 |
| 16.000 | .0000 | 2636.09533 | 2067.16296 | 568.91891 | .58042 | .58001 | .58017 | .64145 | .64108 | .64122 |
| 18.000 | .0000 | 2638.61063 | 2068.93408 | 569.61655 | .60188 | .60221 | .60184 | .65041 | .65041 | .65006 |
| 20.000 | .0000 | 2634.47891 | 2065.12332 | 568.35559 | .61343 | .61434 | .61314 | .65599 | .65585 | .65572 |
| 22.000 | .0000 | 2640.10631 | 2062.55417 | 567.55264 | .62511 | .62615 | .62335 | .66110 | .66209 | .65942 |
| 24.000 | .0000 | 2629.67941 | 2061.72964 | 567.94977 | .64025 | .64222 | .63671 | .66779 | .66965 | .66433 |
| GRADIENT | .03000 | .55853 | .41762 | .14089 | -.00034 | -.00034 | -.00027 | -.00104 | -.00105 | -.00099 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .900 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|-------------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA | .0000 | 2113.98108 | 1249.92923 | 864.05185 | .74944 | .74990 | .74979 | .91433 | .91472 | .91463 |
| 2.000 | .0000 | 2112.05286 | 1248.77386 | 863.27899 | .74372 | .74364 | .74379 | .89849 | .89843 | .89856 |
| 4.000 | .0000 | 2118.18839 | 1252.35219 | 865.83621 | .74698 | .74637 | .74636 | .89347 | .89347 | .89347 |
| 6.000 | .0000 | 2114.64374 | 1253.29912 | 864.34464 | .74455 | .74452 | .74413 | .88253 | .88250 | .88217 |
| 8.000 | .0000 | 2110.03122 | 1247.57364 | 862.45758 | .74396 | .74315 | .74304 | .87611 | .87540 | .87531 |
| 10.000 | .0000 | 2112.73351 | 1249.11789 | 863.61572 | .75172 | .75125 | .75143 | .87485 | .87443 | .87459 |
| 12.000 | .0000 | 2114.59933 | 1250.25994 | 864.43939 | .75871 | .75887 | .75908 | .87485 | .87440 | .87459 |
| 14.000 | .0000 | 2117.13947 | 1251.72624 | 865.41324 | .77144 | .77144 | .77108 | .87592 | .87609 | .87576 |
| 16.000 | .0000 | 2116.02139 | 1251.05811 | 864.96329 | .78420 | .78457 | .78431 | .87680 | .87714 | .87690 |
| 18.000 | .0000 | 2113.29510 | 1249.47339 | 863.82172 | .79749 | .79809 | .79791 | .88269 | .88325 | .88308 |
| 20.000 | .0000 | 2111.35150 | 1248.25095 | 863.10052 | .81363 | .81446 | .81369 | .88221 | .88298 | .88225 |
| 22.000 | .0000 | 2110.78241 | 1247.85742 | 862.92499 | .83398 | .83320 | .83320 | .90147 | .90164 | .90174 |
| 24.000 | .0000 | 2113.14268 | 1249.38358 | 863.75931 | .85711 | .85917 | .85460 | .91335 | .91335 | .90899 |
| GRADIENT | .00000 | 1.05184 | .60574 | .44609 | -.00061 | -.00068 | -.00086 | -.00508 | -.00531 | -.00529 |

TABULATED DATA - 0A161 (ARC 11-97-87-85%)
ARC 11-97-87-09% 0A161 ORBITER + RAKES.

PARAMETRIC DATA

BETA = .000 ELEVON = .008
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8080 IN. YMRP = .0000 IN. Y0
SPEF = 936.6800 IN. ZMRP = 379.0000 IN. Z0
SCALE = .0300

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.200 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|--------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| ALPHA | .0000 | 2003.78401 | 828.63679 | 1166.30751 | .86763 | .86755 | .86707 | 1.05118 | 1.05111 | 1.05059 |
| 2.000 | .0000 | 2006.93002 | 827.95351 | 1165.34581 | .87108 | .87068 | .86987 | 1.04087 | 1.04051 | 1.03979 |
| 4.000 | .0000 | 2008.95340 | 827.74990 | 1165.05922 | .87098 | .87047 | .86983 | 1.02789 | 1.02744 | 1.02686 |
| 6.000 | .0000 | 2012.21327 | 829.46896 | 1167.47879 | .87618 | .87585 | .87528 | 1.02964 | 1.02925 | 1.02874 |
| 8.000 | .0000 | 2011.68602 | 823.32532 | 1167.27747 | .87747 | .87770 | .87716 | 1.02769 | 1.02790 | 1.02741 |
| 10.000 | .0000 | 2012.05740 | 823.42208 | 1167.41281 | .88341 | .88383 | .88317 | 1.04021 | 1.03984 | 1.03963 |
| 12.000 | .0000 | 2012.69560 | 829.63939 | 1167.71867 | .88989 | .88985 | .88933 | 1.06678 | 1.06674 | 1.06687 |
| 14.000 | .0000 | 2012.78661 | 822.69245 | 1167.79337 | .89528 | .89479 | .89418 | 1.08439 | 1.08395 | 1.08341 |
| 16.000 | .0000 | 2011.04118 | 829.51370 | 1167.54176 | .90940 | .90920 | .90847 | 1.09240 | 1.09240 | 1.09157 |
| 18.000 | .0000 | 2012.20630 | 829.51370 | 1167.02246 | .90940 | .90920 | .90847 | 1.10907 | 1.10937 | 1.10873 |
| 20.000 | .0000 | 2018.50417 | 831.53033 | 1170.38017 | .94437 | .94438 | .94387 | 1.12139 | 1.12196 | 1.12233 |
| 22.000 | .0000 | 2017.94966 | 831.40863 | 1170.20888 | .96029 | .96127 | .96072 | 1.13424 | 1.13421 | 1.13349 |
| 24.000 | .0000 | 2014.63448 | 830.32520 | 1168.68396 | .97779 | .97943 | .97679 | 1.15621 | 1.15777 | 1.15626 |
| GRADIENT | .00000 | .77729 | -.22172 | -.31207 | .00084 | .00073 | .00069 | -.00582 | -.00592 | -.00586 |

| MACH = 1.480 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | .0000 | 2043.25799 | 642.23148 | 1315.08347 | .95763 | .95310 | .95260 | 1.23926 | 1.23498 | 1.23452 |
| 2.000 | .0000 | 2048.25000 | 643.57806 | 1318.84294 | .96818 | .96473 | .96499 | 1.23161 | 1.22834 | 1.22856 |
| 4.000 | .0000 | 2046.36710 | 643.02779 | 1317.71530 | .96838 | .96563 | .96522 | 1.23018 | 1.22758 | 1.22719 |
| 6.000 | .0000 | 2036.68442 | 640.56650 | 1312.67154 | .97023 | .96632 | .96486 | 1.22638 | 1.22267 | 1.22128 |
| 8.000 | .0000 | 2036.48167 | 640.58681 | 1312.71315 | .97368 | .97362 | .97030 | 1.23126 | 1.22863 | 1.22547 |
| 10.000 | .0000 | 2037.85380 | 640.77697 | 1313.10286 | .97971 | .97971 | .97362 | 1.23571 | 1.23303 | 1.23266 |
| 12.000 | .0000 | 2032.87712 | 639.62427 | 1310.74069 | .98624 | .98624 | .98748 | 1.23942 | 1.23619 | 1.23538 |
| 14.000 | .0000 | 2034.53185 | 640.07636 | 1311.66714 | .99051 | .98748 | .98812 | 1.24712 | 1.24418 | 1.24480 |
| 16.000 | .0000 | 2038.71129 | 641.14881 | 1313.86484 | 1.01139 | .93851 | .99921 | 1.25334 | 1.25083 | 1.25142 |
| 18.000 | .0000 | 2034.89371 | 640.10445 | 1311.72469 | 1.01924 | 1.01633 | 1.01502 | 1.26226 | 1.25939 | 1.25811 |
| 20.000 | .0000 | 2029.02079 | 638.64844 | 1308.74098 | 1.02838 | 1.02552 | 1.02391 | 1.27171 | 1.26887 | 1.26637 |
| 22.000 | .0000 | 2029.79141 | 638.90320 | 1309.26305 | 1.04318 | 1.04036 | 1.04011 | 1.27942 | 1.27659 | 1.27634 |
| 24.000 | .0000 | 2028.09665 | 638.46732 | 1308.36984 | 1.05429 | 1.05181 | 1.05172 | 1.28293 | 1.28044 | 1.28035 |
| GRADIENT | .00000 | .77729 | .19988 | .40796 | .00269 | .00313 | .00316 | -.00227 | -.00185 | -.00183 |

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(EE7X05.) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09#)
ARC 11-97-87-09# 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1075.6880 IN. XQ
LREF = 474.8000 IN. YMRP = .0800 IN. YO
BREF = 930.6000 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RV/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | .0000 | 1847.14075 | 235.84824 | 1094.43971 | 1.23253 | 1.20947 | 1.17283 | 1.75217 | 1.72461 | 1.68128 |
| 2.000 | .00000 | 1846.77534 | 235.80084 | 1094.21881 | 1.23476 | 1.21604 | 1.17829 | 1.75307 | 1.73069 | 1.68598 |
| 4.000 | .00000 | 1847.06482 | 235.83535 | 1094.37987 | 1.24077 | 1.22866 | 1.18749 | 1.74769 | 1.72811 | 1.68455 |
| 6.000 | .00000 | 1846.70287 | 235.79072 | 1094.17278 | 1.24703 | 1.23806 | 1.19509 | 1.74202 | 1.71950 | 1.68666 |
| 8.000 | .00000 | 1846.84723 | 235.80916 | 1094.25836 | 1.25801 | 1.23955 | 1.21004 | 1.73858 | 1.71674 | 1.68206 |
| 10.000 | .00000 | 1847.73077 | 235.93651 | 1094.84930 | 1.26844 | 1.25273 | 1.22651 | 1.72822 | 1.72423 | 1.69338 |
| 12.000 | .00000 | 1847.06197 | 235.84271 | 1094.41403 | 1.26891 | 1.25470 | 1.23145 | 1.74047 | 1.72366 | 1.69531 |
| 14.000 | .00000 | 1846.76268 | 235.79362 | 1094.21408 | 1.27542 | 1.26198 | 1.23829 | 1.74826 | 1.73444 | 1.70441 |
| 16.000 | .00000 | 1846.78920 | 235.81072 | 1094.26558 | 1.28415 | 1.27121 | 1.24727 | 1.74973 | 1.73444 | 1.71236 |
| 18.000 | .00000 | 1846.62433 | 235.78563 | 1094.14917 | 1.29618 | 1.28304 | 1.26121 | 1.74300 | 1.72754 | 1.70198 |
| 20.000 | .00000 | 1846.66009 | 235.81953 | 1094.30549 | 1.30860 | 1.29411 | 1.26667 | 1.74899 | 1.73295 | 1.70096 |
| 22.000 | .00000 | 1846.62697 | 235.81627 | 1094.29134 | 1.32515 | 1.31111 | 1.28211 | 1.75789 | 1.74121 | 1.70733 |
| 24.000 | .00000 | 1845.64973 | 235.86645 | 1093.68892 | 1.34181 | 1.32815 | 1.29925 | 1.75234 | 1.73641 | 1.70286 |
| GRADIENT | .00000 | -.01898 | -.00322 | -.01495 | .00206 | .00330 | .00366 | -.00112 | .00037 | .00092 |

RV/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | .0000 | 2059.62274 | 178.13523 | 1069.13588 | 1.35020 | 1.31700 | 1.25264 | 1.97275 | 1.93068 | 1.85003 |
| 2.000 | .00000 | 2059.68022 | 178.14101 | 1069.17059 | 1.35703 | 1.32452 | 1.26382 | 1.96595 | 1.92492 | 1.84985 |
| 4.000 | .00000 | 2059.24142 | 178.10249 | 1068.93941 | 1.36437 | 1.33622 | 1.27798 | 1.95920 | 1.92310 | 1.85002 |
| 6.000 | .00000 | 2059.67896 | 178.13995 | 1069.16425 | 1.36889 | 1.33999 | 1.28799 | 1.95574 | 1.91854 | 1.83494 |
| 8.000 | .00000 | 2059.63947 | 178.13554 | 1069.14375 | 1.37309 | 1.34588 | 1.29527 | 1.95114 | 1.91716 | 1.83446 |
| 10.000 | .00000 | 2059.11798 | 178.09175 | 1068.87497 | 1.38034 | 1.35444 | 1.31080 | 1.95158 | 1.91931 | 1.85229 |
| 12.000 | .00000 | 2058.74341 | 178.05964 | 1068.68224 | 1.38636 | 1.36449 | 1.32389 | 1.94875 | 1.92158 | 1.87148 |
| 14.000 | .00000 | 2059.55393 | 178.11318 | 1069.00357 | 1.39041 | 1.37078 | 1.33434 | 1.94077 | 1.91648 | 1.87168 |
| 16.000 | .00000 | 2059.35752 | 178.11188 | 1069.00357 | 1.39737 | 1.37688 | 1.34552 | 1.93695 | 1.91292 | 1.87319 |
| 18.000 | .00000 | 2058.83990 | 178.06788 | 1068.73170 | 1.40744 | 1.38699 | 1.35590 | 1.94068 | 1.91552 | 1.87497 |
| 20.000 | .00000 | 2059.20343 | 178.09903 | 1068.91862 | 1.40847 | 1.38791 | 1.34779 | 1.92024 | 1.89516 | 1.84644 |
| 22.000 | .00000 | 2058.94348 | 178.07670 | 1068.78462 | 1.44555 | 1.42488 | 1.38208 | 1.99332 | 1.95770 | 1.94485 |
| 24.000 | .00000 | 2058.85312 | 178.06898 | 1068.73825 | 1.4576 | 1.43379 | 1.38332 | 1.73478 | 1.70941 | 1.66292 |
| GRADIENT | .00000 | -.09332 | -.00818 | -.04911 | .00369 | .00490 | .00621 | -.00339 | -.00189 | -.00000 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

(EE7X05) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .096
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.6000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|--------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA | .0000 | 1495.02940 | 87.42978 | 658.00838 | 1.39484 | 1.35280 | 1.26689 | 2.08197 | 2.02717 | 1.91671 |
| .000 | .0000 | 1495.07198 | 87.43218 | 658.02643 | 1.39982 | 1.35070 | 1.27501 | 2.08242 | 2.03149 | 1.92136 |
| 2.000 | .0000 | 1494.35016 | 87.36912 | 657.70238 | 1.40709 | 1.37154 | 1.28222 | 2.07944 | 2.03331 | 1.93153 |
| 4.000 | .0000 | 1494.94654 | 87.42504 | 657.97271 | 1.41301 | 1.37852 | 1.30869 | 2.07648 | 2.03186 | 1.94240 |
| 6.000 | .0000 | 1494.94654 | 87.43490 | 658.04689 | 1.41301 | 1.38509 | 1.31898 | 2.07486 | 2.03143 | 1.94551 |
| 8.000 | .0000 | 1495.11034 | 87.38847 | 657.69749 | 1.42502 | 1.39407 | 1.32918 | 2.07278 | 2.03294 | 1.95011 |
| 10.000 | .0000 | 1494.33298 | 87.42791 | 657.99431 | 1.43253 | 1.40475 | 1.34960 | 2.07241 | 2.03675 | 1.96642 |
| 12.000 | .0000 | 1494.98553 | 87.38815 | 657.69506 | 1.44213 | 1.41530 | 1.36607 | 2.06833 | 2.03405 | 1.97152 |
| 14.000 | .0000 | 1494.32795 | 87.42212 | 657.95069 | 1.44556 | 1.41824 | 1.37332 | 2.06105 | 2.02628 | 1.96944 |
| 16.000 | .0000 | 1494.99258 | 87.39025 | 657.71090 | 1.45484 | 1.42928 | 1.38905 | 2.05920 | 2.02678 | 1.97604 |
| 18.000 | .0000 | 1494.35973 | 87.41989 | 657.93397 | 1.46508 | 1.44101 | 1.40245 | 2.05840 | 2.03789 | 1.98922 |
| 20.000 | .0000 | 1494.85456 | 87.39047 | 657.71252 | 1.47141 | 1.44628 | 1.40794 | 2.07282 | 2.04098 | 1.99262 |
| 22.000 | .0000 | 1494.36290 | 87.42173 | 657.94775 | 1.48291 | 1.45926 | 1.42186 | 2.07282 | 2.05070 | 1.99562 |
| 24.000 | .0000 | 1494.86579 | 87.42173 | 657.94775 | 1.48291 | 1.45926 | 1.42186 | 2.08064 | 2.05070 | 2.00356 |
| GRADIENT | .00000 | -.16992 | -.01016 | -.07650 | .00306 | .00469 | .00633 | -.00063 | .00153 | -.00371 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|--------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA | .000 | 1940.57863 | 51.17667 | 566.06326 | 1.54620 | 1.47638 | 1.33316 | 2.43806 | 2.33209 | 2.13438 |
| .000 | .0000 | 1940.33086 | 51.16886 | 565.97688 | 1.55606 | 1.49225 | 1.35010 | 2.45037 | 2.36048 | 2.16326 |
| 2.000 | .0000 | 1939.42018 | 51.14571 | 565.72091 | 1.56018 | 1.50187 | 1.36597 | 2.44296 | 2.36113 | 2.17383 |
| 4.000 | .0000 | 1939.65381 | 51.15674 | 565.84290 | 1.56362 | 1.50795 | 1.38012 | 2.43271 | 2.35496 | 2.19233 |
| 6.000 | .0000 | 1938.91023 | 51.13770 | 565.67232 | 1.56624 | 1.51270 | 1.40087 | 2.41500 | 2.34076 | 2.18737 |
| 8.000 | .0000 | 1939.71480 | 51.16037 | 565.88296 | 1.57107 | 1.52137 | 1.41871 | 2.40648 | 2.33789 | 2.19755 |
| 10.000 | .0000 | 1939.09339 | 51.14639 | 565.72841 | 1.58308 | 1.53942 | 1.44858 | 2.41326 | 2.35312 | 2.22897 |
| 12.000 | .0000 | 1939.37943 | 51.15133 | 565.78307 | 1.59105 | 1.54890 | 1.46717 | 2.41393 | 2.35602 | 2.24453 |
| 14.000 | .0000 | 1939.79555 | 51.13805 | 565.63618 | 1.59326 | 1.55158 | 1.48078 | 2.40209 | 2.34511 | 2.24135 |
| 16.000 | .0000 | 1939.37152 | 51.15323 | 565.80401 | 1.59876 | 1.55843 | 1.49329 | 2.39380 | 2.32914 | 2.25890 |
| 18.000 | .0000 | 1939.61794 | 51.16009 | 565.87995 | 1.61157 | 1.57157 | 1.50917 | 2.39721 | 2.34301 | 2.25771 |
| 20.000 | .0000 | 1938.60949 | 51.13827 | 565.63856 | 1.60563 | 1.56550 | 1.53452 | 2.36220 | 2.30811 | 2.26908 |
| 22.000 | .0000 | 1939.35316 | 51.15332 | 565.80502 | 1.63383 | 1.59357 | 1.53494 | 2.42275 | 2.36817 | 2.28908 |
| 24.000 | .0000 | 1939.28961 | 51.15332 | 565.80502 | 1.63383 | 1.59357 | 1.53494 | 2.42275 | 2.36817 | 2.28908 |
| GRADIENT | .00000 | -.28961 | -.00774 | -.06559 | .00358 | .00637 | .00820 | -.00323 | .00726 | -.00966 |

(EE7X05) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A161 ORBITER + RAKES.

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RM/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | 3.500 | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------|----------|--------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|-----|
| | .000 | .00000 | 2639.31985 | 34.57549 | 526.99953 | 1.64506 | 1.55135 | 1.35385 | 2.65736 | 2.52060 | 2.23785 | |
| | 2.000 | .00000 | 2640.01666 | 34.59445 | 527.13617 | 1.65123 | 1.56433 | 1.36824 | 2.65364 | 2.53684 | 2.25575 | |
| | 4.000 | .00000 | 2640.69986 | 34.59589 | 527.31057 | 1.65694 | 1.57665 | 1.39174 | 2.67288 | 2.54499 | 2.26918 | |
| | 6.000 | .00000 | 2644.64435 | 34.64481 | 528.05621 | 1.66111 | 1.58119 | 1.42189 | 2.69886 | 2.54282 | 2.31470 | |
| | 8.000 | .00000 | 2645.62357 | 34.67127 | 528.49525 | 1.67458 | 1.61169 | 1.44937 | 2.67401 | 2.56815 | 2.34052 | |
| | 10.000 | .00000 | 2646.80231 | 34.67362 | 528.49525 | 1.68205 | 1.61428 | 1.47729 | 2.67499 | 2.57581 | 2.36046 | |
| | 12.000 | .00000 | 2647.39554 | 34.68086 | 528.60566 | 1.68227 | 1.62333 | 1.50254 | 2.63910 | 2.55471 | 2.38328 | |
| | 14.000 | .00000 | 2652.42508 | 34.74652 | 529.60644 | 1.68804 | 1.63297 | 1.52401 | 2.64468 | 2.55584 | 2.41109 | |
| | 16.000 | .00000 | 2653.27376 | 34.75490 | 529.73420 | 1.68820 | 1.63938 | 1.54725 | 2.64160 | 2.56197 | 2.43147 | |
| | 18.000 | .00000 | 2650.23250 | 34.71894 | 529.18507 | 1.69220 | 1.63863 | 1.55158 | 2.59770 | 2.52234 | 2.40266 | |
| | 20.000 | .00000 | 2651.57233 | 34.73560 | 529.43997 | 1.69561 | 1.64218 | 1.56824 | 2.60172 | 2.52517 | 2.40785 | |
| | 22.000 | .00000 | 2652.55411 | 34.74832 | 529.53383 | 1.70083 | 1.64536 | 1.56292 | 2.56034 | 2.50387 | 2.38893 | |
| | 24.000 | .00000 | 2651.96234 | 34.74070 | 529.51771 | 1.70331 | 1.64980 | 1.56812 | 2.57778 | 2.50334 | 2.39037 | |
| | GRADIENT | .00000 | .39504 | .00510 | .07776 | .00297 | .00633 | .00947 | .03573 | .00860 | .01283 | |

(EE7X06) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 ALLRON = .000 BDFLAP = -7.170

| MACH | M31 | M13 | M23 | M33 |
|----------|---------|---------|---------|---------|
| .600 | .58982 | .66150 | .66163 | .66128 |
| .800 | .57534 | .64724 | .64723 | .64677 |
| 1.000 | .57368 | .64423 | .64436 | .64409 |
| 1.200 | .58177 | .64939 | .64920 | .64942 |
| 1.400 | .58436 | .64906 | .64901 | .64907 |
| 1.600 | .58980 | .65037 | .65036 | .65010 |
| 1.800 | .59359 | .65218 | .65222 | .65233 |
| 2.000 | .60158 | .65279 | .65308 | .65304 |
| 2.200 | .60932 | .65708 | .65712 | .65702 |
| 2.400 | .62052 | .66309 | .66346 | .66290 |
| 2.600 | .63638 | .67060 | .67118 | .67032 |
| 2.800 | .64624 | .67741 | .67835 | .67628 |
| 3.000 | .65736 | .68249 | .68472 | .67972 |
| GRADIENT | -.00378 | -.00432 | -.00432 | -.00430 |

| MACH | M31 | M13 | M23 | M33 |
|----------|---------|---------|---------|---------|
| .900 | .77949 | .92917 | .92938 | .92932 |
| 1.000 | .77632 | .91572 | .91580 | .91553 |
| 1.200 | .77783 | .90933 | .90926 | .90956 |
| 1.400 | .77670 | .89931 | .89950 | .89971 |
| 1.600 | .77775 | .89361 | .89373 | .89375 |
| 1.800 | .78460 | .89247 | .89209 | .89209 |
| 2.000 | .78877 | .89099 | .89112 | .89132 |
| 2.200 | .80008 | .89271 | .89255 | .89276 |
| 2.400 | .81586 | .89751 | .89772 | .89720 |
| 2.600 | .83071 | .90435 | .90454 | .90430 |
| 2.800 | .84905 | .91211 | .91201 | .91201 |
| 3.000 | .86390 | .91974 | .92116 | .91913 |
| GRADIENT | .88221 | .93011 | .93248 | .92773 |
| GRADIENT | -.00042 | -.00496 | -.00533 | -.00491 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 4.23 GRADIENT INTERVAL = -9.00/ 5.00

| MACH | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | 2.00000 | 2629.08527 | 2060.85532 | 567.22995 | .58906 | .58920 | .58982 | .66150 | .66163 | .66128 |
| .800 | 2.00000 | 2625.49564 | 2058.85490 | 566.64084 | .57586 | .57585 | .57534 | .64724 | .64723 | .64677 |
| 1.000 | 2.00000 | 2627.76524 | 2060.48969 | 567.27655 | .57364 | .57368 | .57368 | .64423 | .64436 | .64409 |
| 1.200 | 2.00000 | 2627.00364 | 2059.99554 | 567.00510 | .58174 | .58153 | .58177 | .64939 | .64920 | .64942 |
| 1.400 | 2.00000 | 2626.97894 | 2059.00323 | 566.97571 | .58434 | .58429 | .58436 | .64906 | .64901 | .64907 |
| 1.600 | 2.00000 | 2626.30542 | 2059.42054 | 566.87888 | .59010 | .58976 | .58980 | .65037 | .65036 | .65010 |
| 1.800 | 2.00000 | 2626.31233 | 2059.48074 | 566.83148 | .59344 | .59348 | .59359 | .65218 | .65222 | .65233 |
| 2.000 | 2.00000 | 2626.93167 | 2059.44455 | 567.54712 | .60131 | .60162 | .60158 | .65279 | .65308 | .65304 |
| 2.200 | 2.00000 | 2627.44873 | 2060.24384 | 567.20490 | .60938 | .60932 | .60932 | .65708 | .65712 | .65702 |
| 2.400 | 2.00000 | 2626.31005 | 2059.46337 | 566.84988 | .62072 | .62111 | .62052 | .66309 | .66346 | .66290 |
| 2.600 | 2.00000 | 2626.65659 | 2059.71997 | 566.93667 | .63667 | .63727 | .63638 | .67060 | .67118 | .67032 |
| 2.800 | 2.00000 | 2624.28231 | 2057.95145 | 566.33746 | .64740 | .64740 | .64624 | .67741 | .67835 | .67628 |
| 3.000 | 2.00000 | 2623.73347 | 2057.53900 | 566.19147 | .66021 | .66250 | .65736 | .68249 | .68472 | .67972 |
| GRADIENT | .00000 | -.07975 | -.09139 | .01165 | -.00381 | -.00381 | -.00378 | -.00432 | -.00432 | -.00430 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .900 | 2.00000 | 2112.48575 | 1248.91620 | 863.56955 | .77944 | .77967 | .77949 | .92917 | .92938 | .92932 |
| 1.000 | 2.00000 | 2115.92145 | 1251.04158 | 864.87988 | .77653 | .77662 | .77632 | .91572 | .91580 | .91553 |
| 1.200 | 2.00000 | 2119.15109 | 1252.90967 | 866.24142 | .77757 | .77750 | .77783 | .90933 | .90926 | .90956 |
| 1.400 | 2.00000 | 2117.58701 | 1251.97867 | 865.60834 | .77626 | .77647 | .77670 | .89931 | .89950 | .89971 |
| 1.600 | 2.00000 | 2114.79404 | 1250.37154 | 864.42252 | .77760 | .77773 | .77775 | .89361 | .89373 | .89375 |
| 1.800 | 2.00000 | 2119.37845 | 1252.94972 | 865.12875 | .78509 | .78468 | .78460 | .89247 | .89209 | .89209 |
| 2.000 | 2.00000 | 2115.97358 | 1251.07672 | 864.90266 | .78840 | .78955 | .78877 | .89099 | .89112 | .89132 |
| 2.200 | 2.00000 | 2114.68233 | 1250.28584 | 864.39597 | .80003 | .80029 | .80008 | .89271 | .89255 | .89276 |
| 2.400 | 2.00000 | 2116.90549 | 1251.61702 | 865.28848 | .81630 | .81652 | .81586 | .89751 | .89772 | .89720 |
| 2.600 | 2.00000 | 2117.39959 | 1251.88719 | 865.51141 | .83071 | .83140 | .83071 | .90435 | .90454 | .90430 |
| 2.800 | 2.00000 | 2115.91061 | 1251.01956 | 865.89105 | .84815 | .84911 | .84905 | .91211 | .91201 | .91201 |
| 3.000 | 2.00000 | 2110.44538 | 1247.78032 | 862.66608 | .86498 | .86607 | .86390 | .91974 | .92116 | .91913 |
| GRADIENT | .00000 | 2109.08910 | 1246.91112 | 862.17700 | .88466 | .88711 | .88221 | .93011 | .93248 | .92773 |
| GRADIENT | .00000 | 1.66636 | .99836 | .66797 | -.00047 | -.00047 | -.00042 | -.00496 | -.00533 | -.00491 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES.

(EE7X06) (02 AUG. 76)

PARAMETRIC DATA

REFERENCE DATA

MACH = 1.200 ALPHA = 1.400
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300
 BETA = 2.0000 ELEVON = .0000
 AILRON = .0000 BDELAP = -7.170

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.0000 | 2003.55424 | 828.76637 | 1166.48980 | .90210 | .90159 | .90140 | .90159 | .90140 | 1.06899 | 1.06854 | 1.06836 |
| 2.0000 | 2008.90266 | 828.44971 | 1166.04420 | .90523 | .90465 | .90416 | .90465 | .90416 | 1.05563 | 1.05560 | 1.05456 |
| 2.0000 | 2009.08081 | 828.45160 | 1166.04684 | .90778 | .90756 | .90732 | .90756 | .90732 | 1.04823 | 1.04823 | 1.04803 |
| 2.0000 | 2012.43275 | 829.50759 | 1167.67390 | .90920 | .90891 | .90848 | .90891 | .90848 | 1.04171 | 1.04144 | 1.04105 |
| 2.0000 | 2012.15788 | 829.57032 | 1167.62230 | .91190 | .91127 | .91123 | .91127 | .91123 | 1.04578 | 1.04503 | 1.04517 |
| 2.0000 | 2011.92180 | 829.35008 | 1167.32553 | .91947 | .91902 | .91885 | .91902 | .91885 | 1.06501 | 1.06459 | 1.06447 |
| 2.0000 | 2013.54626 | 829.94349 | 1168.14247 | .92108 | .92082 | .92057 | .92082 | .92057 | 1.09961 | 1.09937 | 1.09814 |
| 2.0000 | 2015.19850 | 830.40101 | 1168.79065 | .92939 | .92944 | .92911 | .92939 | .92911 | 1.11728 | 1.11732 | 1.11701 |
| 2.0000 | 2013.62295 | 829.94411 | 1168.14755 | .94662 | .94678 | .94678 | .94678 | .94678 | 1.12023 | 1.12037 | 1.12038 |
| 2.0000 | 2013.25676 | 829.86232 | 1168.03244 | .96307 | .96369 | .96339 | .96369 | .96339 | 1.13575 | 1.13633 | 1.13605 |
| 2.0000 | 2017.18263 | 830.97342 | 1169.59531 | .98156 | .98194 | .98132 | .98194 | .98132 | 1.15291 | 1.15317 | 1.15259 |
| 2.0000 | 2019.10837 | 831.85226 | 1170.93317 | .99871 | .99971 | .99863 | .99971 | .99863 | 1.16537 | 1.16537 | 1.16528 |
| 2.0000 | 2020.01411 | 832.02087 | 1171.07362 | 1.01478 | 1.01674 | 1.01479 | 1.01674 | 1.01479 | 1.18792 | 1.18792 | 1.18792 |
| 2.0000 | 2020.11837 | .07869 | .111077 | .00142 | .00149 | .00148 | .00149 | .00148 | -.00513 | -.00507 | -.00508 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.0000 | 2044.20187 | 642.54803 | 1316.73218 | .98563 | .99122 | .99149 | .99122 | .99149 | 1.27828 | 1.27399 | 1.27424 |
| 2.0000 | 2046.48904 | 643.12830 | 1317.92126 | 1.00703 | 1.00256 | 1.00433 | 1.00256 | 1.00433 | 1.27215 | 1.26776 | 1.26949 |
| 2.0000 | 2041.44493 | 641.78355 | 1315.16579 | 1.00683 | 1.00288 | 1.00408 | 1.00288 | 1.00408 | 1.26294 | 1.25847 | 1.25968 |
| 2.0000 | 2044.57449 | 642.62668 | 1316.89333 | 1.01279 | 1.00947 | 1.00773 | 1.00947 | 1.00773 | 1.26030 | 1.25704 | 1.25834 |
| 2.0000 | 2040.79563 | 641.70628 | 1315.00722 | 1.01533 | 1.01199 | 1.01035 | 1.01199 | 1.01035 | 1.26430 | 1.26101 | 1.25939 |
| 2.0000 | 2035.77562 | 640.44118 | 1312.41475 | 1.02243 | 1.01858 | 1.01691 | 1.01858 | 1.01691 | 1.27321 | 1.26941 | 1.27072 |
| 2.0000 | 2036.94429 | 640.72521 | 1312.99680 | 1.02918 | 1.02576 | 1.02766 | 1.02576 | 1.02766 | 1.27811 | 1.27470 | 1.27659 |
| 2.0000 | 2039.65997 | 641.42471 | 1314.43022 | 1.02810 | 1.02457 | 1.02661 | 1.02457 | 1.02661 | 1.27811 | 1.27470 | 1.27659 |
| 2.0000 | 2039.80769 | 641.42276 | 1314.38522 | 1.04198 | 1.03849 | 1.03659 | 1.03849 | 1.03659 | 1.28422 | 1.28410 | 1.28421 |
| 2.0000 | 2039.32877 | 641.25414 | 1314.10118 | 1.05771 | 1.05443 | 1.05215 | 1.05443 | 1.05215 | 1.30317 | 1.30317 | 1.30387 |
| 2.0000 | 2033.81595 | 639.92650 | 1311.35902 | 1.05926 | 1.05601 | 1.05493 | 1.05601 | 1.05493 | 1.31071 | 1.30741 | 1.30637 |
| 2.0000 | 2023.58159 | 637.19749 | 1305.76765 | 1.07155 | 1.06911 | 1.06899 | 1.06911 | 1.06899 | 1.31966 | 1.31717 | 1.31703 |
| 2.0000 | 2021.60355 | 636.67937 | 1304.70592 | 1.08198 | 1.07924 | 1.07889 | 1.07924 | 1.07889 | 1.32387 | 1.32106 | 1.32070 |
| 2.0000 | 2021.68921 | .19109 | .39160 | .00280 | .00291 | .00315 | .00291 | .00315 | -.00399 | -.00382 | -.00355 |

(EE7X08) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-09*)

ARC 11-97-87-09* 0A161 ORGLTER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 ALLRDM = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | 2.00000 | 1563.49995 | 397.95504 | 1036.97801 | 1.08679 | 1.08049 | 1.07666 | 1.41912 | 1.41278 | 1.40453 |
| 2.000 | .000 | 2.00000 | 1570.76030 | 398.53608 | 1038.46596 | 1.09198 | 1.08430 | 1.07867 | 1.41572 | 1.40760 | 1.40167 |
| 4.000 | .000 | 2.00000 | 1572.20036 | 398.86619 | 1039.32613 | 1.09407 | 1.08741 | 1.08122 | 1.41153 | 1.40450 | 1.39798 |
| 6.000 | .000 | 2.00000 | 1572.37077 | 399.00957 | 1039.43916 | 1.09978 | 1.09448 | 1.08713 | 1.40975 | 1.40416 | 1.39643 |
| 8.000 | .000 | 2.00000 | 1573.70795 | 399.25253 | 1040.31351 | 1.10405 | 1.09959 | 1.09097 | 1.41482 | 1.41010 | 1.40101 |
| 10.000 | .000 | 2.00000 | 1573.65640 | 399.24512 | 1040.31351 | 1.11168 | 1.10831 | 1.09972 | 1.41789 | 1.41411 | 1.40503 |
| 12.000 | .000 | 2.00000 | 1572.64693 | 398.98661 | 1039.63991 | 1.12353 | 1.11983 | 1.11211 | 1.41696 | 1.41304 | 1.40486 |
| 14.000 | .000 | 2.00000 | 1572.69780 | 399.00335 | 1039.67572 | 1.13102 | 1.12755 | 1.12057 | 1.42682 | 1.42313 | 1.41570 |
| 16.000 | .000 | 2.00000 | 1572.12041 | 398.84943 | 1039.27986 | 1.13782 | 1.13329 | 1.12621 | 1.42891 | 1.42397 | 1.41645 |
| 18.000 | .000 | 2.00000 | 1571.97598 | 399.81422 | 1039.19070 | 1.14419 | 1.13908 | 1.13206 | 1.43950 | 1.43404 | 1.42654 |
| 20.000 | .000 | 2.00000 | 1574.13762 | 399.36440 | 1040.62433 | 1.15016 | 1.14690 | 1.14013 | 1.45511 | 1.45261 | 1.44532 |
| 22.000 | .000 | 2.00000 | 1576.42464 | 399.93516 | 1042.11156 | 1.16371 | 1.16052 | 1.15227 | 1.46435 | 1.46091 | 1.45202 |
| 24.000 | .000 | 2.00000 | 1576.99655 | 400.08363 | 1042.49686 | 1.17316 | 1.16953 | 1.15811 | 1.46863 | 1.46363 | 1.45240 |
| GRADIENT | .00000 | .00000 | .92511 | .22529 | .58703 | .00190 | .00173 | .00214 | -.00190 | -.00207 | -.00164 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | .000 | 2.00000 | 1656.77100 | 311.18817 | 1071.52611 | 1.15882 | 1.14724 | 1.12840 | 1.57583 | 1.56282 | 1.54177 |
| 2.000 | .000 | 2.00000 | 1655.31691 | 310.91837 | 1070.59709 | 1.15724 | 1.14827 | 1.12864 | 1.56806 | 1.56798 | 1.53610 |
| 4.000 | .000 | 2.00000 | 1655.46857 | 310.94656 | 1070.69418 | 1.15790 | 1.14824 | 1.13018 | 1.56271 | 1.56190 | 1.53190 |
| 6.000 | .000 | 2.00000 | 1655.59386 | 310.97010 | 1070.77524 | 1.16021 | 1.15073 | 1.13184 | 1.55977 | 1.55917 | 1.52941 |
| 8.000 | .000 | 2.00000 | 1656.17558 | 311.07782 | 1071.14615 | 1.17033 | 1.16069 | 1.14462 | 1.55977 | 1.54929 | 1.52142 |
| 10.000 | .000 | 2.00000 | 1655.23152 | 311.09952 | 1071.18300 | 1.17967 | 1.17205 | 1.15703 | 1.56005 | 1.55443 | 1.53771 |
| 12.000 | .000 | 2.00000 | 1656.23276 | 311.09945 | 1071.22061 | 1.18467 | 1.17723 | 1.16511 | 1.56295 | 1.55726 | 1.54375 |
| 14.000 | .000 | 2.00000 | 1656.36481 | 311.11320 | 1071.26796 | 1.19413 | 1.18607 | 1.17577 | 1.56559 | 1.56299 | 1.54790 |
| 16.000 | .000 | 2.00000 | 1656.64993 | 310.98056 | 1070.81123 | 1.20554 | 1.19701 | 1.18313 | 1.56830 | 1.56462 | 1.54914 |
| 18.000 | .000 | 2.00000 | 1656.12835 | 311.05919 | 1071.11641 | 1.21166 | 1.20189 | 1.18429 | 1.57817 | 1.57847 | 1.55874 |
| 20.000 | .000 | 2.00000 | 1656.28973 | 311.11927 | 1071.28888 | 1.22822 | 1.21683 | 1.19901 | 1.59957 | 1.59998 | 1.56998 |
| 22.000 | .000 | 2.00000 | 1655.39973 | 311.11927 | 1071.02734 | 1.23332 | 1.22621 | 1.20799 | 1.60363 | 1.59560 | 1.57511 |
| 24.000 | .000 | 2.00000 | 1655.65131 | 310.98100 | 1070.81276 | 1.24829 | 1.24829 | 1.22350 | 1.59771 | 1.59145 | 1.56394 |
| GRADIENT | .00000 | .00000 | -.52563 | -.06040 | -.20799 | -.00023 | .00023 | .00044 | -.00328 | -.00273 | -.00249 |

TABLATED DATA - 0A161 (ARC 11-97-87-09%)
ARC 11-97-87-09% 0A161 ORBITER → RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .030 BDFLAP = -7.170

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8800 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -.5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 2.000 | .000 | 2.00000 | 1845.98238 | 235.71697 | 1093.83054 | 1.26681 | 1.24017 | 1.20530 | 1.78347 | 1.75252 | 1.71100 |
| 2.000 | 2.000 | 2.00000 | 1845.69019 | 235.68386 | 1093.67549 | 1.27012 | 1.24752 | 1.21007 | 1.79001 | 1.75192 | 1.70739 |
| 4.000 | 4.000 | 2.00000 | 1844.79626 | 235.96110 | 1093.10722 | 1.26881 | 1.24674 | 1.21161 | 1.77747 | 1.75197 | 1.71020 |
| 6.000 | 6.000 | 2.00000 | 1844.06950 | 235.46566 | 1092.66437 | 1.27144 | 1.25117 | 1.21970 | 1.78077 | 1.75645 | 1.71887 |
| 8.000 | 8.000 | 2.00000 | 1845.05512 | 235.59471 | 1093.26320 | 1.28199 | 1.26401 | 1.23122 | 1.78395 | 1.75245 | 1.72335 |
| 10.000 | 10.000 | 2.00000 | 1845.94762 | 235.71702 | 1093.83081 | 1.27131 | 1.27131 | 1.24358 | 1.79295 | 1.76112 | 1.72873 |
| 12.000 | 12.000 | 2.00000 | 1845.39353 | 235.63526 | 1093.45602 | 1.28938 | 1.28610 | 1.26073 | 1.79601 | 1.76653 | 1.73425 |
| 14.000 | 14.000 | 2.00000 | 1846.05315 | 235.72144 | 1093.85130 | 1.31455 | 1.29905 | 1.27442 | 1.79565 | 1.77144 | 1.74784 |
| 16.000 | 16.000 | 2.00000 | 1846.19992 | 235.73932 | 1093.93427 | 1.32566 | 1.28825 | 1.28825 | 1.79928 | 1.78218 | 1.75475 |
| 18.000 | 18.000 | 2.00000 | 1846.65709 | 235.79776 | 1094.20544 | 1.31593 | 1.28625 | 1.28625 | 1.79686 | 1.78444 | 1.75212 |
| 20.000 | 20.000 | 2.00000 | 1847.25053 | 235.88823 | 1094.62527 | 1.33717 | 1.32163 | 1.29096 | 1.79873 | 1.78032 | 1.74462 |
| 22.000 | 22.000 | 2.00000 | 1847.20595 | 235.88139 | 1094.59354 | 1.35285 | 1.33810 | 1.30732 | 1.81547 | 1.79783 | 1.76137 |
| 24.000 | 24.000 | 2.00000 | 1846.34912 | 235.77158 | 1094.08394 | 1.37725 | 1.36166 | 1.33043 | 1.82166 | 1.80318 | 1.75531 |
| GRADIENT | | .00000 | -.29551 | -.03997 | -.18083 | .00052 | .00164 | .00158 | -.00150 | -.00014 | -.00021 |

| MACH | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 2.250 | .000 | 2.00000 | 2059.21453 | 178.10086 | 1068.92479 | 1.32909 | 1.29266 | 1.23207 | 1.94066 | 1.89483 | 1.81952 |
| 2.000 | 2.000 | 2.00000 | 2059.05692 | 178.08647 | 1068.84325 | 1.33368 | 1.29758 | 1.24017 | 1.94033 | 1.89482 | 1.82364 |
| 4.000 | 4.000 | 2.00000 | 2059.38257 | 178.11436 | 1069.01056 | 1.34045 | 1.30883 | 1.25061 | 1.93307 | 1.89350 | 1.82741 |
| 6.000 | 6.000 | 2.00000 | 2059.19321 | 178.09820 | 1069.91364 | 1.34883 | 1.32029 | 1.26828 | 1.92880 | 1.89321 | 1.82586 |
| 8.000 | 8.000 | 2.00000 | 2059.07935 | 178.08638 | 1068.85469 | 1.35471 | 1.32705 | 1.27752 | 1.92686 | 1.89245 | 1.83137 |
| 10.000 | 10.000 | 2.00000 | 2059.48204 | 178.12256 | 1069.05988 | 1.36379 | 1.33902 | 1.29632 | 1.92449 | 1.89379 | 1.84124 |
| 12.000 | 12.000 | 2.00000 | 2058.62692 | 178.04962 | 1068.62146 | 1.37136 | 1.34664 | 1.30588 | 1.92375 | 1.89318 | 1.84312 |
| 14.000 | 14.000 | 2.00000 | 2058.07443 | 178.08793 | 1068.85205 | 1.38918 | 1.35919 | 1.32048 | 1.92629 | 1.90039 | 1.85266 |
| 16.000 | 16.000 | 2.00000 | 2058.61598 | 178.04855 | 1068.61566 | 1.38259 | 1.36202 | 1.32469 | 1.92777 | 1.89580 | 1.85127 |
| 18.000 | 18.000 | 2.00000 | 2058.53250 | 178.04855 | 1068.57248 | 1.39306 | 1.36699 | 1.32550 | 1.92707 | 1.89545 | 1.84181 |
| 20.000 | 20.000 | 2.00000 | 2058.52417 | 178.04055 | 1068.56763 | 1.40175 | 1.37928 | 1.33517 | 1.93299 | 1.90536 | 1.85147 |
| 22.000 | 22.000 | 2.00000 | 2058.59705 | 178.04666 | 1068.60429 | 1.40944 | 1.37858 | 1.34449 | 1.93299 | 1.90555 | 1.85210 |
| 24.000 | 24.000 | 2.00000 | 2058.37756 | 178.02781 | 1068.49115 | 1.45932 | 1.43561 | 1.39184 | 2.02914 | 1.99845 | 1.94497 |
| GRADIENT | | .00000 | .04193 | .00357 | .02144 | .00284 | .00491 | .00463 | -.00190 | -.00033 | -.00047 |

(EE7X06) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-034)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RV/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M12 | M22 | M32 | M13 | M23 | M33 |
|--------------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ALPHA | 2.00000 | 1487.32057 | 86.97802 | 654.60834 | 1.42284 | 1.37840 | 1.29182 | 2.14480 | 2.08344 | 2.07301 | 2.13048 | 2.07241 | 1.95423 |
| .000 | 2.00000 | 1487.99101 | 87.01836 | 654.91200 | 1.42590 | 1.37876 | 1.29551 | 2.13048 | 2.07753 | 2.07241 | 2.12941 | 2.07753 | 1.97224 |
| 2.000 | 2.00000 | 1487.56725 | 87.01707 | 654.90228 | 1.42847 | 1.38986 | 1.30883 | 2.13173 | 2.07211 | 2.07211 | 2.12941 | 2.07211 | 1.98372 |
| 4.000 | 2.00000 | 1487.95211 | 87.01669 | 654.89940 | 1.43874 | 1.40184 | 1.32594 | 2.12502 | 2.07950 | 2.07950 | 2.12502 | 2.07950 | 1.99495 |
| 6.000 | 2.00000 | 1487.55708 | 87.01653 | 654.89824 | 1.44496 | 1.42163 | 1.33614 | 2.14395 | 2.09748 | 2.09748 | 2.14395 | 2.09748 | 2.02853 |
| 8.000 | 2.00000 | 1487.91705 | 87.01443 | 654.88243 | 1.45715 | 1.42163 | 1.35305 | 2.14015 | 2.09956 | 2.09956 | 2.14015 | 2.09956 | 2.02169 |
| 10.000 | 2.00000 | 1487.93314 | 87.01538 | 654.88936 | 1.46278 | 1.43115 | 1.37115 | 2.14243 | 2.10119 | 2.10119 | 2.14243 | 2.10119 | 2.03453 |
| 12.000 | 2.00000 | 1487.92639 | 87.01483 | 654.88956 | 1.47029 | 1.44201 | 1.38735 | 2.12954 | 2.09556 | 2.09556 | 2.12954 | 2.09556 | 2.03749 |
| 14.000 | 2.00000 | 1487.92639 | 87.01604 | 654.89454 | 1.47706 | 1.45002 | 1.40070 | 2.12651 | 2.09219 | 2.09219 | 2.12651 | 2.09219 | 2.04652 |
| 16.000 | 2.00000 | 1487.92914 | 87.01502 | 654.88682 | 1.48099 | 1.45466 | 1.40870 | 2.13181 | 2.09941 | 2.09941 | 2.13181 | 2.09941 | 2.05671 |
| 18.000 | 2.00000 | 1487.92914 | 87.01727 | 654.90379 | 1.49018 | 1.47356 | 1.42061 | 2.13916 | 2.10694 | 2.10694 | 2.13916 | 2.10694 | 2.06694 |
| 20.000 | 2.00000 | 1487.95275 | 87.01634 | 654.90131 | 1.50288 | 1.47756 | 1.42876 | 2.10425 | 2.00425 | 2.00425 | 2.10425 | 2.00425 | 2.07694 |
| 22.000 | 2.00000 | 1487.95438 | 87.01867 | 654.91432 | 1.51334 | 1.48973 | 1.44876 | 2.00339 | 2.00339 | 2.00339 | 2.00339 | 2.00339 | 2.08694 |
| 24.000 | 2.00000 | 1487.98357 | 87.01867 | 654.91432 | 1.51334 | 1.48973 | 1.44876 | 2.00339 | 2.00339 | 2.00339 | 2.00339 | 2.00339 | 2.09694 |
| GRADIENT | .00000 | .16166 | .00976 | .07349 | .00167 | .00339 | .00425 | .00365 | .00425 | .00425 | .00365 | .00425 | .00425 |

RV/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | BETA | PT | P | OCOMP | M11 | M21 | M31 | M12 | M22 | M32 | M13 | M23 | M33 |
|--------------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ALPHA | 2.00000 | 1939.15904 | 51.12361 | 555.47639 | 1.57364 | 1.49404 | 1.35666 | 2.49881 | 2.45221 | 2.45221 | 2.49881 | 2.45221 | 2.19286 |
| .000 | 2.00000 | 1940.13321 | 51.14938 | 555.76151 | 1.58677 | 1.50975 | 1.36896 | 2.51434 | 2.46922 | 2.46922 | 2.51434 | 2.46922 | 2.20883 |
| 2.000 | 2.00000 | 1939.45256 | 51.13434 | 565.59507 | 1.58817 | 1.52072 | 1.38247 | 2.49053 | 2.46922 | 2.46922 | 2.49053 | 2.46922 | 2.20174 |
| 4.000 | 2.00000 | 1939.50529 | 51.13526 | 565.60524 | 1.59495 | 1.53212 | 1.40609 | 2.49776 | 2.46922 | 2.46922 | 2.49776 | 2.46922 | 2.23336 |
| 6.000 | 2.00000 | 1939.54354 | 51.14013 | 565.65913 | 1.60178 | 1.54339 | 1.42234 | 2.49783 | 2.46922 | 2.46922 | 2.49783 | 2.46922 | 2.24795 |
| 8.000 | 2.00000 | 1937.17625 | 51.07750 | 564.96639 | 1.60947 | 1.55137 | 1.44227 | 2.49582 | 2.46922 | 2.46922 | 2.49582 | 2.46922 | 2.26275 |
| 10.000 | 2.00000 | 1939.09195 | 51.10284 | 565.24663 | 1.62637 | 1.57399 | 1.47517 | 2.51959 | 2.46922 | 2.46922 | 2.51959 | 2.46922 | 2.30127 |
| 12.000 | 2.00000 | 1937.62146 | 51.08700 | 565.07146 | 1.63384 | 1.58731 | 1.49487 | 2.52353 | 2.46922 | 2.46922 | 2.52353 | 2.46922 | 2.32422 |
| 14.000 | 2.00000 | 1939.26642 | 51.13221 | 565.57153 | 1.63596 | 1.59196 | 1.50942 | 2.50016 | 2.46922 | 2.46922 | 2.50016 | 2.46922 | 2.33321 |
| 16.000 | 2.00000 | 1939.53443 | 51.11276 | 565.35637 | 1.63988 | 1.59642 | 1.52332 | 2.49548 | 2.46922 | 2.46922 | 2.49548 | 2.46922 | 2.34241 |
| 18.000 | 2.00000 | 1938.72614 | 51.12192 | 565.45771 | 1.64938 | 1.60585 | 1.53823 | 2.49550 | 2.46922 | 2.46922 | 2.49550 | 2.46922 | 2.34435 |
| 20.000 | 2.00000 | 1939.94917 | 51.12888 | 565.53468 | 1.65442 | 1.61170 | 1.54718 | 2.49162 | 2.46922 | 2.46922 | 2.49162 | 2.46922 | 2.34435 |
| 22.000 | 2.00000 | 1938.90468 | 51.12936 | 565.52891 | 1.65686 | 1.61482 | 1.55436 | 2.48506 | 2.46922 | 2.46922 | 2.48506 | 2.46922 | 2.34435 |
| 24.000 | 2.00000 | 1938.90468 | 51.12936 | 565.52891 | 1.65686 | 1.61482 | 1.55436 | 2.48506 | 2.46922 | 2.46922 | 2.48506 | 2.46922 | 2.34435 |
| GRADIENT | .00000 | .07342 | .00268 | .02967 | .00388 | .00667 | .00645 | .00645 | .00667 | .00667 | .00645 | .00667 | .00667 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BCFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.6000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | QCOMP | M1 | M2 | M3 | M13 | M23 | M33 |
|--------------|----------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| | .000 | 2.00000 | 2667.8812 | 34.95021 | 532.71109 | 1.65684 | 1.54641 | 1.35007 | 2.72901 | 2.56490 | 2.29334 |
| | 2.000 | 2.00000 | 2667.99584 | 34.95149 | 532.73055 | 1.67307 | 1.57002 | 1.38004 | 2.75072 | 2.59747 | 2.31590 |
| | 4.000 | 2.00000 | 2667.55579 | 34.94600 | 532.64699 | 1.67984 | 1.58847 | 1.39916 | 2.74224 | 2.60696 | 2.33125 |
| | 6.000 | 2.00000 | 2658.66705 | 34.95039 | 532.86630 | 1.68531 | 1.59787 | 1.42539 | 2.75135 | 2.62175 | 2.35335 |
| | 8.000 | 2.00000 | 2669.83285 | 34.95260 | 532.89992 | 1.69558 | 1.61385 | 1.45002 | 2.74387 | 2.62347 | 2.36531 |
| | 10.000 | 2.00000 | 2667.43528 | 34.94465 | 532.62630 | 1.70159 | 1.62230 | 1.47769 | 2.73697 | 2.62070 | 2.41105 |
| | 12.000 | 2.00000 | 2669.69775 | 34.97392 | 533.07244 | 1.71511 | 1.64632 | 1.51470 | 2.74555 | 2.64490 | 2.45401 |
| | 14.000 | 2.00000 | 2669.85501 | 34.96312 | 532.90790 | 1.71855 | 1.65742 | 1.53343 | 2.73883 | 2.64965 | 2.47032 |
| | 16.000 | 2.00000 | 2669.65951 | 34.97344 | 533.06512 | 1.72811 | 1.65769 | 1.55913 | 2.73405 | 2.64640 | 2.49562 |
| | 18.000 | 2.00000 | 2658.57300 | 34.96078 | 532.87227 | 1.72819 | 1.65907 | 1.57297 | 2.72625 | 2.64058 | 2.47770 |
| | 20.000 | 2.00000 | 2670.18905 | 34.98034 | 533.17038 | 1.72428 | 1.66704 | 1.57709 | 2.68757 | 2.63563 | 2.47770 |
| | 22.000 | 2.00000 | 2668.15328 | 34.95359 | 532.76417 | 1.72504 | 1.66827 | 1.58273 | 2.67293 | 2.62508 | 2.47101 |
| | 24.000 | 2.00000 | 2670.01163 | 34.97799 | 533.13458 | 1.72394 | 1.66392 | 1.58038 | 2.66958 | 2.61463 | 2.45635 |
| | GRADIENT | .00000 | -.09307 | -.00105 | -.01603 | .00575 | .01051 | .00977 | .00331 | .01051 | .00948 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

(EE7X07) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 EDFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .600 | | | | | | | | | | |
|----------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| ALPHA | | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
| .000 | 5.00000 | 2624.0005 | 2057.68289 | 566.31805 | .61543 | .60905 | .60883 | .61538 | .67306 | .67320 | .67302 |
| 2.000 | 5.00000 | 2624.93231 | 2057.61972 | 566.31259 | .60905 | .60714 | .60718 | .60917 | .66629 | .66609 | .66540 |
| 4.000 | 5.00000 | 2624.85635 | 2058.36877 | 566.48758 | .61064 | .61006 | .61015 | .61064 | .66146 | .66156 | .66153 |
| 6.000 | 5.00000 | 2627.65573 | 2058.37475 | 567.28098 | .61006 | .61006 | .61015 | .61006 | .66405 | .66402 | .66444 |
| 8.000 | 5.00000 | 2625.01135 | 2059.40189 | 566.60947 | .61613 | .61613 | .61613 | .61613 | .66226 | .66226 | .66209 |
| 10.000 | 5.00000 | 2625.86366 | 2053.00568 | 566.85800 | .61613 | .61613 | .61613 | .61613 | .66251 | .66251 | .66297 |
| 12.000 | 5.00000 | 2624.17457 | 2057.86670 | 566.30737 | .61957 | .61957 | .61957 | .61957 | .66522 | .66522 | .66493 |
| 14.000 | 5.00000 | 2624.36059 | 2058.07087 | 566.33981 | .62853 | .62853 | .62817 | .62754 | .67220 | .67220 | .67150 |
| 16.000 | 5.00000 | 2624.72936 | 2058.21182 | 566.51654 | .63733 | .63733 | .63764 | .63718 | .67648 | .67648 | .67604 |
| 18.000 | 5.00000 | 2627.18732 | 2059.98223 | 567.20209 | .64952 | .64952 | .65001 | .64945 | .68180 | .68180 | .68127 |
| 20.000 | 5.00000 | 2627.48154 | 2060.22819 | 567.25336 | .66668 | .66668 | .66716 | .66537 | .69355 | .69355 | .69335 |
| 22.000 | 5.00000 | 2625.04254 | 2058.51157 | 566.53098 | .67912 | .67912 | .68023 | .67578 | .69864 | .69864 | .69855 |
| 24.000 | 5.00000 | 2625.90522 | 2059.18518 | 566.72034 | .69323 | .69323 | .69184 | .68535 | .70362 | .70362 | .70319 |
| GRADIENT | .00000 | .21387 | .17145 | .04238 | -.00209 | -.00210 | -.00210 | -.00206 | -.00290 | -.00291 | -.00287 |

PN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .900 | | | | | | | | | | |
|----------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| ALPHA | | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
| .000 | 5.00000 | 2111.48715 | 1249.50783 | 862.97934 | .82453 | .82480 | .82480 | .82424 | .95017 | .95041 | .94994 |
| 2.000 | 5.00000 | 2115.43283 | 1250.78174 | 864.65109 | .82250 | .82287 | .82287 | .82258 | .93985 | .94016 | .94022 |
| 4.000 | 5.00000 | 2117.10138 | 1251.73029 | 865.37109 | .82013 | .82030 | .82030 | .82038 | .92351 | .92351 | .92358 |
| 6.000 | 5.00000 | 2114.79214 | 1250.37328 | 864.41898 | .81819 | .81819 | .81819 | .81819 | .92122 | .92122 | .92181 |
| 8.000 | 5.00000 | 2109.96927 | 1247.40634 | 862.56323 | .82146 | .82146 | .82146 | .82146 | .91530 | .91574 | .91578 |
| 10.000 | 5.00000 | 2116.55933 | 1251.47731 | 865.09103 | .83101 | .83101 | .83091 | .83061 | .91460 | .91471 | .91444 |
| 12.000 | 5.00000 | 2116.71036 | 1251.55195 | 865.14841 | .83442 | .83442 | .83447 | .83441 | .91493 | .91498 | .91492 |
| 14.000 | 5.00000 | 2112.28323 | 1248.90517 | 863.37828 | .84475 | .84475 | .84511 | .84498 | .91794 | .91827 | .91915 |
| 16.000 | 5.00000 | 2114.90735 | 1250.43449 | 864.47287 | .85964 | .85964 | .85993 | .85954 | .92175 | .92200 | .92156 |
| 18.000 | 5.00000 | 2115.76746 | 1250.94667 | 864.82080 | .87441 | .87441 | .87441 | .87411 | .92759 | .92770 | .92742 |
| 20.000 | 5.00000 | 2108.11169 | 1246.37889 | 861.73282 | .89306 | .89306 | .89375 | .89376 | .93758 | .93758 | .93729 |
| 22.000 | 5.00000 | 2109.97069 | 1247.37915 | 862.59174 | .91492 | .91492 | .91492 | .91416 | .95117 | .95175 | .95175 |
| 24.000 | 5.00000 | 2116.70166 | 1251.42284 | 865.27894 | .93741 | .93741 | .94013 | .93543 | .98221 | .98221 | .98161 |
| GRADIENT | .00000 | 1.40354 | .60562 | .59794 | -.00110 | -.00112 | -.00112 | -.00095 | -.00521 | -.00523 | -.00529 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.6000 IN. YMRP = .0000 IN. Y0
BREF = 935.6900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = 5.000 ELEVOM = .000
A1LRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.200 | .000 | 5.00000 | 2011.53369 | 829.44221 | 1167.44115 | .94946 | .94946 | .94987 | 1.09336 | 1.09314 | 1.09259 |
| 2.000 | .000 | 5.00000 | 2009.60754 | 828.83453 | 1166.56583 | .95576 | .95586 | .95524 | 1.07724 | 1.07733 | 1.07675 |
| 4.000 | .000 | 5.00000 | 2010.79175 | 829.08212 | 1166.92431 | .95923 | .95865 | .95829 | 1.07314 | 1.07260 | 1.07227 |
| 6.000 | .000 | 5.00000 | 2013.56270 | 830.02262 | 1168.22992 | .96071 | .96071 | .96010 | 1.06903 | 1.06891 | 1.06834 |
| 8.000 | .000 | 5.00000 | 2013.05412 | 829.84943 | 1168.01431 | .96445 | .96435 | .96376 | 1.07393 | 1.07383 | 1.07328 |
| 10.000 | .000 | 5.00000 | 2013.29351 | 829.89634 | 1168.06627 | .97335 | .97335 | .97290 | 1.07097 | 1.07094 | 1.07055 |
| 14.000 | .000 | 5.00000 | 2013.92358 | 830.14828 | 1168.43494 | .97188 | .97188 | .97182 | 1.14645 | 1.14648 | 1.14642 |
| 16.000 | .000 | 5.00000 | 2014.72244 | 830.35471 | 1168.75448 | .99962 | .99962 | .99962 | 1.15475 | 1.15484 | 1.15552 |
| 18.000 | .000 | 5.00000 | 2016.26015 | 830.79547 | 1169.34596 | 1.01774 | 1.01774 | 1.01882 | 1.16198 | 1.16235 | 1.16310 |
| 20.000 | .000 | 5.00000 | 2018.08566 | 831.44070 | 1170.25401 | 1.03587 | 1.03587 | 1.03712 | 1.17808 | 1.17875 | 1.17922 |
| 22.000 | .000 | 5.00000 | 2018.50551 | 830.88952 | 1169.47824 | 1.05220 | 1.05220 | 1.05373 | 1.19469 | 1.19545 | 1.19591 |
| 24.000 | .000 | 5.00000 | 2018.10297 | 831.44154 | 1170.21298 | 1.06827 | 1.06827 | 1.07123 | 1.21179 | 1.21281 | 1.21281 |
| GRADIENT | | .00000 | -1.18549 | -0.09042 | -1.12671 | .00238 | .00230 | .00236 | 1.24265 | 1.24491 | 1.24562 |
| | | | | | | | | | -.00505 | -.00513 | -.00508 |

| MACH | ALPHA | BETA | PT | P | QCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.400 | .000 | 5.00000 | 2051.64871 | 644.49467 | 1320.72128 | 1.04625 | 1.04156 | 1.04348 | 1.32189 | 1.31714 | 1.31988 |
| 2.000 | .000 | 5.00000 | 2052.59505 | 644.77777 | 1321.30142 | 1.05236 | 1.04884 | 1.05058 | 1.30918 | 1.30480 | 1.30735 |
| 4.000 | .000 | 5.00000 | 2045.37286 | 642.84837 | 1317.34753 | 1.05655 | 1.05262 | 1.05516 | 1.30661 | 1.30254 | 1.30510 |
| 6.000 | .000 | 5.00000 | 2043.72665 | 642.43147 | 1316.49332 | 1.06034 | 1.05709 | 1.05664 | 1.30624 | 1.30295 | 1.30249 |
| 8.000 | .000 | 5.00000 | 2038.74538 | 641.18506 | 1313.94118 | 1.06356 | 1.05968 | 1.05953 | 1.31119 | 1.30745 | 1.30709 |
| 10.000 | .000 | 5.00000 | 2037.38092 | 640.82363 | 1313.19847 | 1.07105 | 1.06743 | 1.06775 | 1.31671 | 1.31301 | 1.31388 |
| 12.000 | .000 | 5.00000 | 2036.57905 | 641.10538 | 1313.77788 | 1.07732 | 1.07359 | 1.07359 | 1.32509 | 1.32090 | 1.32352 |
| 14.000 | .000 | 5.00000 | 2044.59329 | 642.24944 | 1317.01324 | 1.07121 | 1.06711 | 1.06967 | 1.33942 | 1.33568 | 1.33688 |
| 16.000 | .000 | 5.00000 | 2042.24944 | 642.08685 | 1315.78711 | 1.09838 | 1.09546 | 1.09485 | 1.35127 | 1.34825 | 1.34761 |
| 18.000 | .000 | 5.00000 | 2029.50303 | 639.78069 | 1309.01199 | 1.11142 | 1.10805 | 1.10857 | 1.36179 | 1.35828 | 1.35883 |
| 20.000 | .000 | 5.00000 | 2032.02077 | 639.50005 | 1310.48513 | 1.11803 | 1.11482 | 1.11472 | 1.37618 | 1.37483 | 1.37471 |
| 22.000 | .000 | 5.00000 | 2035.48525 | 640.41441 | 1312.35988 | 1.13322 | 1.13057 | 1.12959 | 1.38281 | 1.38050 | 1.38080 |
| 24.000 | .000 | 5.00000 | 2020.62016 | 636.51413 | 1304.35728 | 1.14256 | 1.13959 | 1.13574 | 1.39192 | 1.38911 | 1.38911 |
| GRADIENT | | .00000 | -1.56897 | -0.84341 | -0.02260 | .00260 | .00277 | .00292 | -.00382 | -.00365 | -.00350 |

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OF POOR QUALITY

(EE7X07) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 3690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | 5.00000 | 1561.82259 | 396.34618 | 1032.75972 | 1.12471 | 1.11996 | 1.11218 | 1.46221 | 1.45382 | 1.43988 |
| 2.000 | .000 | 5.00000 | 1563.04528 | 396.65676 | 1033.56905 | 1.12424 | 1.11890 | 1.11004 | 1.44939 | 1.43988 | 1.43493 |
| 4.000 | .000 | 5.00000 | 1563.16922 | 396.66547 | 1033.59172 | 1.13155 | 1.12538 | 1.11698 | 1.44220 | 1.43493 | 1.43469 |
| 6.000 | .000 | 5.00000 | 1563.46620 | 396.74025 | 1033.78656 | 1.13605 | 1.13116 | 1.12515 | 1.44636 | 1.43469 | 1.43469 |
| 8.000 | .000 | 5.00000 | 1567.33949 | 397.71354 | 1036.32269 | 1.14335 | 1.13997 | 1.13270 | 1.45026 | 1.43854 | 1.43854 |
| 10.000 | .000 | 5.00000 | 1572.23866 | 398.95424 | 1039.55556 | 1.15054 | 1.14757 | 1.14084 | 1.46333 | 1.45012 | 1.45297 |
| 12.000 | .000 | 5.00000 | 1570.17735 | 398.42982 | 1038.18903 | 1.15915 | 1.15487 | 1.15056 | 1.46866 | 1.46433 | 1.45976 |
| 14.000 | .000 | 5.00000 | 1568.15354 | 397.92425 | 1036.87173 | 1.16429 | 1.15790 | 1.14958 | 1.47262 | 1.46571 | 1.45673 |
| 16.000 | .000 | 5.00000 | 1568.63312 | 398.03931 | 1037.16693 | 1.17328 | 1.16796 | 1.16207 | 1.48798 | 1.48219 | 1.47379 |
| 18.000 | .000 | 5.00000 | 1568.80666 | 398.07167 | 1037.25586 | 1.19122 | 1.18556 | 1.17745 | 1.50318 | 1.49782 | 1.48815 |
| 20.000 | .000 | 5.00000 | 1568.97487 | 398.12054 | 1037.38345 | 1.20737 | 1.20324 | 1.19105 | 1.51217 | 1.50782 | 1.49335 |
| 22.000 | .000 | 5.00000 | 1571.11573 | 398.66999 | 1038.81490 | 1.21504 | 1.21367 | 1.20280 | 1.50999 | 1.50849 | 1.49554 |
| 24.000 | .000 | 5.00000 | 1571.43958 | 398.73845 | 1038.99330 | 1.21763 | 1.21613 | 1.20662 | 1.52972 | 1.52806 | 1.51763 |
| GRADIENT | | .00000 | .33555 | .07983 | .20800 | .00171 | .00135 | .00160 | -.00463 | -.00500 | -.00472 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | .000 | 5.00000 | 1655.65865 | 310.98268 | 1070.81854 | 1.19293 | 1.18128 | 1.16519 | 1.62572 | 1.61298 | 1.59407 |
| 2.000 | .000 | 5.00000 | 1655.87311 | 311.02239 | 1070.95529 | 1.19232 | 1.18264 | 1.16573 | 1.61466 | 1.60362 | 1.58445 |
| 4.000 | .000 | 5.00000 | 1655.81648 | 311.01186 | 1070.91904 | 1.20367 | 1.19259 | 1.17706 | 1.61214 | 1.59956 | 1.58198 |
| 6.000 | .000 | 5.00000 | 1656.53960 | 311.14603 | 1071.38103 | 1.21051 | 1.20205 | 1.18760 | 1.61159 | 1.60231 | 1.58595 |
| 8.000 | .000 | 5.00000 | 1655.73843 | 310.99725 | 1070.86871 | 1.21947 | 1.21112 | 1.19484 | 1.61777 | 1.60927 | 1.58982 |
| 10.000 | .000 | 5.00000 | 1655.74200 | 310.99660 | 1070.87334 | 1.22150 | 1.21346 | 1.20072 | 1.61913 | 1.60999 | 1.59555 |
| 12.000 | .000 | 5.00000 | 1654.84193 | 310.82005 | 1070.25854 | 1.23403 | 1.22460 | 1.21465 | 1.62688 | 1.61615 | 1.60465 |
| 14.000 | .000 | 5.00000 | 1655.26350 | 311.09286 | 1071.19794 | 1.24289 | 1.23154 | 1.21398 | 1.63438 | 1.62145 | 1.61473 |
| 16.000 | .000 | 5.00000 | 1656.03967 | 311.05466 | 1071.06638 | 1.25105 | 1.24125 | 1.22183 | 1.64009 | 1.63666 | 1.62830 |
| 18.000 | .000 | 5.00000 | 1656.03967 | 311.05466 | 1071.06638 | 1.25597 | 1.24125 | 1.22183 | 1.64009 | 1.64857 | 1.63698 |
| 20.000 | .000 | 5.00000 | 1654.73904 | 310.79940 | 1070.18747 | 1.27953 | 1.26659 | 1.24942 | 1.66074 | 1.65259 | 1.65098 |
| 22.000 | .000 | 5.00000 | 1654.73904 | 310.79940 | 1070.18747 | 1.29023 | 1.27889 | 1.25886 | 1.66766 | 1.65469 | 1.65197 |
| 24.000 | .000 | 5.00000 | 1655.71509 | 310.98600 | 1070.82997 | 1.29023 | 1.27889 | 1.25886 | 1.66766 | 1.65469 | 1.65197 |
| GRADIENT | | .00000 | .66179 | .16761 | .07145 | .00268 | .00263 | .00297 | -.00340 | -.00321 | -.00302 |

(EE7X07) (02 AUG 76)

TABULATED DATA - OAI61 (ARC 11-97-87-89A)

ARC 11-97-87-89A OAI61 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.178

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| .000 | .000 | 5.00000 | 1834.93884 | 234.25348 | 1087.03931 | 1.29828 | 1.27650 | 1.24696 | 1.83075 | 1.80312 | 1.76636 |
| 2.000 | .000 | 5.00000 | 1830.93913 | 233.75630 | 1084.73218 | 1.30643 | 1.28536 | 1.25298 | 1.83378 | 1.80818 | 1.76909 |
| 4.000 | .000 | 5.00000 | 1831.46227 | 233.83033 | 1085.07568 | 1.31358 | 1.29611 | 1.26312 | 1.82423 | 1.80311 | 1.76348 |
| 6.000 | .000 | 5.00000 | 1831.73577 | 233.86808 | 1085.25089 | 1.32596 | 1.30596 | 1.27264 | 1.82549 | 1.80140 | 1.76148 |
| 8.000 | .000 | 5.00000 | 1834.07391 | 234.17492 | 1086.67477 | 1.34072 | 1.32200 | 1.29016 | 1.84520 | 1.82256 | 1.78424 |
| 10.000 | .000 | 5.00000 | 1836.11595 | 234.42052 | 1087.81444 | 1.34777 | 1.33786 | 1.30200 | 1.84469 | 1.82487 | 1.78961 |
| 12.000 | .000 | 5.00000 | 1836.10439 | 234.41899 | 1087.80734 | 1.35878 | 1.33786 | 1.31296 | 1.84911 | 1.82390 | 1.79403 |
| 14.000 | .000 | 5.00000 | 1841.38962 | 235.10691 | 1090.99960 | 1.36845 | 1.34980 | 1.31857 | 1.85110 | 1.82868 | 1.79130 |
| 16.000 | .000 | 5.00000 | 1849.86311 | 236.19734 | 1096.05969 | 1.37881 | 1.36262 | 1.32662 | 1.87742 | 1.85542 | 1.80959 |
| 18.000 | .000 | 5.00000 | 1849.98158 | 236.21837 | 1096.15729 | 1.39016 | 1.37284 | 1.33516 | 1.88754 | 1.86656 | 1.82110 |
| 20.000 | .000 | 5.00000 | 1845.65546 | 235.66004 | 1093.56639 | 1.40715 | 1.39050 | 1.35610 | 1.88834 | 1.86826 | 1.82696 |
| 22.000 | .000 | 5.00000 | 1847.52986 | 235.89360 | 1094.65019 | 1.42474 | 1.40703 | 1.37297 | 1.91698 | 1.89552 | 1.85438 |
| 24.000 | .000 | 5.00000 | 1848.52832 | 235.04575 | 1095.35625 | 1.43554 | 1.41533 | 1.38290 | 1.94773 | 1.92303 | 1.88364 |
| GRADIENT | | .00000 | -.86914 | -.10579 | -.49091 | .00359 | .00490 | .00426 | -.00163 | -.00000 | -.00072 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | ALPHA | BETA | PT | P | OCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| .000 | .000 | 5.00000 | 2059.36877 | 178.11419 | 1069.00968 | 1.39773 | 1.35758 | 1.30536 | 2.02605 | 1.97488 | 1.90893 |
| 2.000 | .000 | 5.00000 | 2058.48529 | 178.03863 | 1068.55612 | 1.40259 | 1.36433 | 1.31024 | 2.00570 | 1.95741 | 1.88970 |
| 4.000 | .000 | 5.00000 | 2059.33249 | 178.11115 | 1068.99139 | 1.40858 | 1.37170 | 1.31704 | 2.00081 | 1.95441 | 1.88623 |
| 6.000 | .000 | 5.00000 | 2059.45581 | 178.12163 | 1069.05426 | 1.41576 | 1.38317 | 1.32857 | 2.01111 | 1.97003 | 1.90174 |
| 8.000 | .000 | 5.00000 | 2058.44626 | 178.03983 | 1068.53333 | 1.42693 | 1.39462 | 1.34304 | 2.01782 | 1.97714 | 1.91266 |
| 10.000 | .000 | 5.00000 | 2059.21469 | 178.10055 | 1068.92778 | 1.43446 | 1.40536 | 1.35932 | 2.02193 | 1.98532 | 1.92774 |
| 12.000 | .000 | 5.00000 | 2058.72852 | 178.05987 | 1068.67758 | 1.44065 | 1.41262 | 1.36705 | 2.03079 | 1.99548 | 1.93858 |
| 14.000 | .000 | 5.00000 | 2059.33539 | 178.02506 | 1068.47466 | 1.44887 | 1.41373 | 1.37055 | 2.04032 | 2.00147 | 1.94726 |
| 16.000 | .000 | 5.00000 | 2059.73508 | 178.14466 | 1069.19247 | 1.45887 | 1.42105 | 1.37177 | 2.04976 | 2.00190 | 1.95473 |
| 18.000 | .000 | 5.00000 | 2058.78250 | 178.06276 | 1068.70093 | 1.46835 | 1.43371 | 1.37925 | 2.05976 | 2.00879 | 1.96476 |
| 20.000 | .000 | 5.00000 | 2059.63272 | 178.13587 | 1069.13972 | 1.47666 | 1.44273 | 1.37315 | 2.04413 | 2.01263 | 1.95034 |
| 22.000 | .000 | 5.00000 | 2058.95566 | 178.07759 | 1068.78992 | 1.48533 | 1.44553 | 1.39420 | 2.06962 | 2.03576 | 1.97143 |
| 24.000 | .000 | 5.00000 | 2058.71259 | 178.05686 | 1068.66547 | 1.49437 | 1.44206 | 1.37403 | 1.99462 | 1.96395 | 1.90543 |
| GRADIENT | | .00000 | -.00907 | -.00076 | -.00455 | .00271 | .00353 | .00292 | -.00631 | -.00512 | -.00568 |

TABLULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(EE7X07) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.178

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | QCOMP | M11 | M21 | M31 | M13 | M23 | M33 |
|--------------|----------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| | .000 | 5.00000 | 2683.02945 | 35.14780 | 535.72283 | 1.65608 | 1.53943 | 1.38589 | 2.77200 | 2.59623 | 2.38890 |
| | 2.000 | 5.00000 | 2682.78683 | 35.14482 | 535.67736 | 1.67810 | 1.56159 | 1.40155 | 2.80669 | 2.63067 | 2.39295 |
| | 4.000 | 5.00000 | 2680.96332 | 35.12155 | 535.32265 | 1.69608 | 1.57955 | 1.42151 | 2.81674 | 2.64134 | 2.40722 |
| | 6.000 | 5.00000 | 2682.66758 | 35.14306 | 535.65053 | 1.70585 | 1.60079 | 1.43603 | 2.81317 | 2.65574 | 2.41248 |
| | 8.000 | 5.00000 | 2680.66055 | 35.11761 | 535.26256 | 1.71870 | 1.62784 | 1.46421 | 2.83536 | 2.69883 | 2.45619 |
| | 10.000 | 5.00000 | 2682.31409 | 35.13948 | 535.58065 | 1.72877 | 1.64015 | 1.48713 | 2.83188 | 2.69937 | 2.47330 |
| | 12.000 | 5.00000 | 2680.79922 | 35.11946 | 535.29087 | 1.74050 | 1.65968 | 1.51643 | 2.83101 | 2.71072 | 2.49973 |
| | 14.000 | 5.00000 | 2681.94269 | 35.13391 | 535.51104 | 1.75624 | 1.67969 | 1.54101 | 2.85575 | 2.74161 | 2.53578 |
| | 16.000 | 5.00000 | 2680.82974 | 35.11878 | 535.28040 | 1.76379 | 1.69590 | 1.57411 | 2.86113 | 2.75998 | 2.55552 |
| | 18.000 | 5.00000 | 2680.17957 | 35.11156 | 535.17036 | 1.75550 | 1.69478 | 1.58470 | 2.83169 | 2.74177 | 2.55057 |
| | 20.000 | 5.00000 | 2692.18320 | 35.13710 | 535.55972 | 1.70314 | 1.70314 | 1.58456 | 2.85345 | 2.76368 | 2.56888 |
| | 22.000 | 5.00000 | 2680.60205 | 35.11565 | 535.23274 | 1.75714 | 1.69375 | 1.58891 | 2.82787 | 2.73417 | 2.56028 |
| | 24.000 | 5.00000 | 2680.41901 | 35.11479 | 535.21957 | 1.75261 | 1.6875 | 1.59148 | 2.81734 | 2.72127 | 2.56049 |
| | GRADIENT | | - .51654 | - .00656 | - .10005 | .01000 | .01003 | .00891 | .01118 | .01128 | .00958 |

(FE7803) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|-------|----------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.200 | .000 | -5.00000 | 2008.91339 | 828.82202 | 1166.56822 | .81236 | .81132 | .81148 | .94471 | .94357 | .94383 |
| 2.000 | .000 | -5.00000 | 2009.59576 | 828.57557 | 1166.22134 | .81927 | .81863 | .81924 | .93617 | .93573 | .93614 |
| 4.000 | .000 | -5.00000 | 2012.59209 | 829.41618 | 1167.40450 | .82523 | .82566 | .82499 | .92894 | .92957 | .92870 |
| 6.000 | .000 | -5.00000 | 2007.30058 | 828.01813 | 1165.43574 | .82704 | .82739 | .82742 | .92433 | .92468 | .92470 |
| 8.000 | .000 | -5.00000 | 2005.18105 | 827.75428 | 1165.08044 | .83256 | .83172 | .83172 | .93535 | .93535 | .93533 |
| 10.000 | .000 | -5.00000 | 1999.63934 | 825.13528 | 1163.13528 | .83764 | .83523 | .83442 | .95649 | .95438 | .95327 |
| 12.000 | .000 | -5.00000 | 2001.46516 | 825.74883 | 1163.65021 | .85108 | .84753 | .84648 | .98533 | .98179 | .98074 |
| 14.000 | .000 | -5.00000 | 2001.00822 | 826.64798 | 1163.50826 | .86336 | .85972 | .85987 | .98156 | .98291 | .98406 |
| 16.000 | .000 | -5.00000 | 1999.43224 | 826.30900 | 1163.03114 | .87369 | .86830 | .87080 | .99338 | .98798 | .99049 |
| 18.000 | .000 | -5.00000 | 2003.10529 | 827.22448 | 1164.29153 | .89167 | .88628 | .88768 | 1.00648 | 1.00110 | 1.00250 |
| 20.000 | .000 | -5.00000 | 2003.56302 | 826.62385 | 1163.47430 | .90640 | .90104 | .90229 | 1.01144 | 1.00608 | 1.00733 |
| 22.000 | .000 | -5.00000 | 1995.12405 | 825.65847 | 1162.11552 | .91331 | .90950 | .91167 | 1.01236 | 1.00715 | 1.00932 |
| 24.000 | .000 | -5.00000 | 1995.54181 | 825.41649 | 1161.77493 | .92428 | .92253 | .92533 | .01385 | 1.01210 | 1.01430 |
| GRADIENT | | | .66567 | .44854 | .20908 | .00322 | .00359 | .00338 | -.00394 | -.00557 | -.00378 |

PN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|-------|----------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.550 | .000 | -5.00000 | 1578.31139 | 400.01855 | 1042.32884 | .77473 | .78492 | .79539 | .94965 | .95984 | .97031 |
| 2.000 | .000 | -5.00000 | 1578.99117 | 400.18729 | 1042.76854 | .78049 | .79042 | .80106 | .94752 | .95745 | .96809 |
| 4.000 | .000 | -5.00000 | 1577.34309 | 399.78399 | 1041.71767 | .78702 | .79657 | .80681 | .94898 | .95854 | .96878 |
| 6.000 | .000 | -5.00000 | 1579.35894 | 399.79176 | 1041.73790 | .79270 | .80250 | .81386 | .94851 | .95831 | .96967 |
| 8.000 | .000 | -5.00000 | 1575.77289 | 400.03267 | 1042.36615 | .78975 | .80395 | .81637 | .93905 | .95325 | .96555 |
| 10.000 | .000 | -5.00000 | 1575.77289 | 399.39394 | 1040.73128 | .79187 | .81013 | .82343 | .93472 | .95297 | .96628 |
| 12.000 | .000 | -5.00000 | 1575.64384 | 399.36381 | 1040.63841 | .81326 | .82224 | .83207 | .94929 | .95827 | .96810 |
| 14.000 | .000 | -5.00000 | 1575.95380 | 399.44687 | 1040.83922 | .81836 | .82941 | .83982 | .94524 | .95671 | .96570 |
| 16.000 | .000 | -5.00000 | 1575.97449 | 399.45256 | 1040.65405 | .81506 | .82993 | .84212 | .93864 | .95351 | .96662 |
| 18.000 | .000 | -5.00000 | 1576.27609 | 399.52647 | 1041.04663 | .81918 | .83501 | .84642 | .93938 | .95522 | .96825 |
| 20.000 | .000 | -5.00000 | 1575.81970 | 399.41241 | 1040.74942 | .82225 | .83945 | .85165 | .94105 | .95825 | .97045 |
| 22.000 | .000 | -5.00000 | 1575.80944 | 399.41526 | 1040.75685 | .81863 | .83720 | .85021 | .94058 | .95915 | .97215 |
| 24.000 | .000 | -5.00000 | 1576.42549 | 399.57412 | 1041.17078 | .81549 | .83406 | .84645 | .93570 | .95427 | .96667 |
| GRADIENT | | | -.24779 | -.05863 | -.15279 | .00307 | .00291 | .00286 | -.00016 | -.00033 | -.00038 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(FE7863) (02 AUG 78)

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.176

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|-------|----------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 1.750 | .000 | -5.00000 | 1642.42418 | 309.79275 | 1066.72121 | .72401 | .74699 | .77187 | .89559 | .91657 | .94305 |
| | 2.000 | -5.00000 | 1650.93587 | 310.08348 | 1067.72229 | .73354 | .75625 | .78333 | .89899 | .92169 | .94378 |
| | 4.000 | -5.00000 | 1650.24094 | 309.94633 | 1067.25003 | .73961 | .76192 | .78423 | .90108 | .92339 | .94569 |
| | 6.000 | -5.00000 | 1649.94432 | 309.89394 | 1067.06963 | .74759 | .76744 | .78927 | .90558 | .92543 | .94725 |
| | 8.000 | -5.00000 | 1650.82304 | 310.06269 | 1067.65071 | .74285 | .77120 | .79394 | .89534 | .92429 | .94644 |
| | 10.000 | -5.00000 | 1650.44762 | 309.98747 | 1067.39171 | .74832 | .77931 | .79947 | .89555 | .92755 | .94771 |
| | 12.000 | -5.00000 | 1651.41377 | 310.17471 | 1068.03642 | .76501 | .78799 | .80584 | .91079 | .93331 | .95062 |
| | 14.000 | -5.00000 | 1651.02856 | 310.09678 | 1067.76807 | .77391 | .79339 | .81406 | .91447 | .93395 | .95227 |
| | 16.000 | -5.00000 | 1650.14075 | 309.92978 | 1067.19304 | .76512 | .79254 | .81170 | .90689 | .92902 | .94818 |
| | 18.000 | -5.00000 | 1650.84254 | 310.06318 | 1067.65240 | .76252 | .79087 | .81028 | .89846 | .92572 | .94513 |
| | 20.000 | -5.00000 | 1651.58724 | 310.16493 | 1069.00276 | .76663 | .79353 | .81316 | .89590 | .92280 | .94273 |
| | 22.000 | -5.00000 | 1651.57825 | 310.20011 | 1068.12389 | .76678 | .79087 | .81094 | .89375 | .91765 | .93792 |
| | 24.000 | -5.00000 | 1651.58163 | 310.20077 | 1068.12617 | .76678 | .79087 | .81094 | .89375 | .91765 | .93792 |
| | GRADIENT | .00000 | .20419 | .03840 | .13221 | .00390 | .00373 | .00359 | .00137 | .00120 | .00056 |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|-------|----------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 2.000 | .000 | -5.00000 | 1847.06216 | 235.97826 | 1095.04305 | .70545 | .75003 | .78853 | .86570 | .91028 | .94879 |
| | 2.000 | -5.00000 | 1848.00623 | 236.10478 | 1095.63014 | .71538 | .75743 | .79463 | .87112 | .91317 | .95037 |
| | 4.000 | -5.00000 | 1847.42177 | 235.02850 | 1095.27618 | .72380 | .76756 | .80329 | .87470 | .91846 | .95418 |
| | 6.000 | -5.00000 | 1846.95721 | 235.96262 | 1094.97944 | .73366 | .77473 | .80827 | .88155 | .92267 | .95616 |
| | 8.000 | -5.00000 | 1846.59905 | 235.96757 | 1094.99344 | .73928 | .78301 | .81724 | .88213 | .92585 | .96008 |
| | 10.000 | -5.00000 | 1846.48545 | 235.89915 | 1094.67596 | .74291 | .79107 | .81935 | .88173 | .92989 | .96315 |
| | 12.000 | -5.00000 | 1846.51515 | 235.90250 | 1094.69146 | .75570 | .79479 | .82493 | .88732 | .93301 | .96315 |
| | 14.000 | -5.00000 | 1846.62762 | 235.83774 | 1094.75682 | .76235 | .79697 | .82627 | .88989 | .93441 | .96320 |
| | 16.000 | -5.00000 | 1846.52921 | 235.89704 | 1094.59096 | .76211 | .80136 | .82756 | .89378 | .93303 | .96323 |
| | 18.000 | -5.00000 | 1846.35065 | 235.87904 | 1094.59261 | .75612 | .79619 | .82522 | .88438 | .92644 | .95347 |
| | 20.000 | -5.00000 | 1846.86618 | 235.94551 | 1094.89108 | .75591 | .79587 | .82429 | .87080 | .91366 | .94922 |
| | 22.000 | -5.00000 | 1847.20576 | 235.93682 | 1095.09203 | .75358 | .79305 | .82122 | .87188 | .91136 | .93952 |
| | 24.000 | -5.00000 | 1846.03110 | 235.83439 | 1094.37541 | .76239 | .79887 | .82666 | .87569 | .91218 | .93937 |
| | GRADIENT | .00000 | .08990 | .01256 | .05829 | .00433 | .00433 | .00369 | .00225 | .00225 | .00135 |

(FE7803) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = +74.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

PN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|-------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 2.250 | .000 | -5.00000 | 2051.52133 | 177.43511 | 1064.93391 | .68747 | .75627 | .80984 | .83395 | .90276 | .95633 |
| 2.000 | .000 | -5.00000 | 2050.73444 | 177.36766 | 1064.52902 | .69466 | .76323 | .81697 | .83795 | .90533 | .96027 |
| 4.000 | .000 | -5.00000 | 2050.90634 | 177.38244 | 1064.61781 | .70466 | .76970 | .82162 | .84515 | .91019 | .96389 |
| 6.000 | .000 | -5.00000 | 2050.73029 | 177.36738 | 1064.52737 | .71693 | .77610 | .82986 | .85486 | .91413 | .96599 |
| 8.000 | .000 | -5.00000 | 2051.17938 | 177.40587 | 1064.75842 | .72725 | .78476 | .83122 | .85262 | .92013 | .97428 |
| 10.000 | .000 | -5.00000 | 2051.78479 | 177.45775 | 1065.06981 | .73690 | .79336 | .83950 | .87159 | .92805 | .97589 |
| 12.000 | .000 | -5.00000 | 2052.43539 | 177.51383 | 1065.40637 | .74851 | .80222 | .84513 | .87267 | .93338 | .97242 |
| 14.000 | .000 | -5.00000 | 2054.13220 | 177.65454 | 1066.25092 | .75473 | .80563 | .84829 | .88203 | .93195 | .97293 |
| 16.000 | .000 | -5.00000 | 2055.24664 | 177.75452 | 1066.85094 | .75297 | .80131 | .84230 | .87760 | .92514 | .96533 |
| 18.000 | .000 | -5.00000 | 2055.90338 | 177.81194 | 1067.19557 | .74430 | .79992 | .83343 | .86794 | .91911 | .95922 |
| 20.000 | .000 | -5.00000 | 2055.49189 | 177.77633 | 1066.99186 | .74922 | .79541 | .83434 | .86446 | .90758 | .94651 |
| 22.000 | .000 | -5.00000 | 2055.35655 | 177.76571 | 1066.91809 | .74230 | .79551 | .83434 | .86639 | .91699 | .95851 |
| 24.000 | .000 | -5.00000 | 2056.58188 | 177.86968 | 1067.54214 | .75403 | .80664 | .84615 | .86639 | .91699 | .95851 |
| GRADIENT | | .00000 | -.15373 | -.01317 | -.07902 | .00430 | .00336 | .00294 | .00280 | .00186 | .00144 |

PN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|-------|----------|------------|----------|-----------|--------|--------|--------|--------|--------|--------|
| 2.500 | .000 | -5.00000 | 1498.56390 | 87.64465 | 659.62552 | .64490 | .72757 | .79354 | .77882 | .86149 | .92745 |
| 2.000 | .000 | -5.00000 | 1497.87276 | 87.60338 | 659.31491 | .65246 | .73584 | .80542 | .78508 | .86346 | .93805 |
| 4.000 | .000 | -5.00000 | 1497.09436 | 87.55775 | 658.97150 | .66559 | .74815 | .81492 | .79644 | .87901 | .94577 |
| 6.000 | .000 | -5.00000 | 1497.75047 | 87.59612 | 659.26024 | .68024 | .75964 | .82440 | .80861 | .88801 | .95277 |
| 8.000 | .000 | -5.00000 | 1497.84230 | 87.60144 | 659.30032 | .69640 | .77234 | .83073 | .82322 | .89916 | .95755 |
| 10.000 | .000 | -5.00000 | 1497.81511 | 87.59991 | 659.28880 | .71107 | .78263 | .83955 | .83571 | .90733 | .96334 |
| 12.000 | .000 | -5.00000 | 1497.81754 | 87.59989 | 659.28856 | .71573 | .78580 | .83962 | .83976 | .90983 | .96365 |
| 14.000 | .000 | -5.00000 | 1497.78598 | 87.59764 | 659.27169 | .72193 | .79099 | .84103 | .84487 | .91392 | .96397 |
| 16.000 | .000 | -5.00000 | 1497.77367 | 87.59656 | 659.26360 | .72538 | .79001 | .84085 | .84623 | .91085 | .95769 |
| 18.000 | .000 | -5.00000 | 1497.77548 | 87.59658 | 659.26370 | .72543 | .78993 | .84026 | .84269 | .90719 | .95752 |
| 20.000 | .000 | -5.00000 | 1497.79367 | 87.59782 | 659.27309 | .72219 | .78613 | .83411 | .83684 | .90082 | .94875 |
| 22.000 | .000 | -5.00000 | 1497.81293 | 87.59903 | 659.28218 | .71595 | .77901 | .82749 | .82642 | .88948 | .93796 |
| 24.000 | .000 | -5.00000 | 1497.82393 | 87.59926 | 659.28389 | .70365 | .76414 | .81343 | .81187 | .87236 | .92166 |
| GRADIENT | | .00000 | -.36739 | -.02172 | -.16350 | .00517 | .00515 | .00533 | .00441 | .00438 | .00458 |

TABLATED DATA - OA161 (ARC 11-97-87-894)
ARC 11-97-87-094 OA161 ORBITER + RAKES

(FE7803) (02 AUG 76)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LPEF = 474.8000 IN. YMRP = .0000 IN. YO
RPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0320

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|----------|------------|----------|-----------|--------|--------|--------|--------|--------|--------|--------|
| .000 | -5.00000 | 1935.56339 | 51.10074 | 565.22348 | .56874 | .68717 | .78554 | .81758 | .69915 | .81758 | .91595 |
| 2.000 | -5.00000 | 1935.15036 | 51.09178 | 565.12438 | .57757 | .69561 | .79584 | .82527 | .70722 | .82527 | .92649 |
| 4.000 | -5.00000 | 1935.07675 | 51.11307 | 565.35988 | .59455 | .71274 | .80929 | .84008 | .72188 | .84008 | .93563 |
| 6.000 | -5.00000 | 1936.50783 | 51.12482 | 565.48977 | .61313 | .72784 | .82197 | .85455 | .73984 | .85455 | .94869 |
| 8.000 | -5.00000 | 1936.47981 | 51.12357 | 565.47800 | .63570 | .74413 | .83001 | .85949 | .76106 | .85949 | .95537 |
| 10.000 | -5.00000 | 1936.30977 | 51.12127 | 565.45056 | .65501 | .75996 | .84097 | .86281 | .77786 | .86281 | .96393 |
| 12.000 | -5.00000 | 1936.00462 | 51.11145 | 565.34191 | .66681 | .76840 | .84644 | .86926 | .78767 | .86926 | .96731 |
| 14.000 | -5.00000 | 1935.75789 | 51.09733 | 565.19574 | .67373 | .77756 | .84906 | .88926 | .79326 | .88926 | .96858 |
| 16.000 | -5.00000 | 1935.34329 | 51.08156 | 565.01133 | .68586 | .78066 | .85316 | .89106 | .79853 | .89106 | .96936 |
| 18.000 | -5.00000 | 1935.29200 | 51.07934 | 564.98677 | .69585 | .78656 | .85272 | .89377 | .79938 | .89377 | .96936 |
| 20.000 | -5.00000 | 1934.35158 | 51.05967 | 564.78923 | .67943 | .77201 | .84371 | .88250 | .77994 | .88250 | .95417 |
| 22.000 | -5.00000 | 1934.81860 | 51.07553 | 564.94459 | .67260 | .76133 | .83180 | .86670 | .77994 | .86670 | .93915 |
| 24.000 | -5.00000 | 1934.05590 | 51.04761 | 564.63582 | .66170 | .74513 | .81390 | .85118 | .76773 | .85118 | .91993 |
| GRADIENT | .00000 | .12834 | .00308 | .03410 | .00645 | .00633 | .00594 | .00563 | .00569 | .00563 | .00517 |

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|----------|------------|----------|-----------|--------|--------|--------|--------|--------|--------|--------|
| .000 | -5.00000 | 2547.37308 | 33.36888 | 508.60840 | .50053 | .63793 | .75716 | .76899 | .63159 | .76899 | .82822 |
| 2.000 | -5.00000 | 2547.81790 | 33.37489 | 508.70000 | .51015 | .65104 | .77174 | .78125 | .64036 | .78125 | .90195 |
| 4.000 | -5.00000 | 2545.94196 | 33.36394 | 508.53317 | .52709 | .66880 | .78776 | .79757 | .65586 | .79757 | .91662 |
| 6.000 | -5.00000 | 2547.50006 | 33.37128 | 508.64510 | .54490 | .68328 | .79538 | .81041 | .67203 | .81041 | .92250 |
| 8.000 | -5.00000 | 2547.17203 | 33.36708 | 508.58096 | .57540 | .70654 | .81049 | .83195 | .70081 | .83195 | .93591 |
| 10.000 | -5.00000 | 2551.36157 | 33.42099 | 509.40276 | .59320 | .71867 | .82079 | .84149 | .71603 | .84149 | .94361 |
| 12.000 | -5.00000 | 2555.54724 | 33.47640 | 510.24735 | .60973 | .73000 | .82841 | .85447 | .73127 | .85447 | .95447 |
| 14.000 | -5.00000 | 2559.82321 | 33.51929 | 510.89791 | .62387 | .74107 | .83655 | .86899 | .74178 | .86899 | .96538 |
| 16.000 | -5.00000 | 2563.66443 | 33.58292 | 511.87092 | .63084 | .74852 | .84231 | .88259 | .74491 | .88259 | .97551 |
| 18.000 | -5.00000 | 2567.71115 | 33.63562 | 512.67409 | .63377 | .74595 | .83999 | .89468 | .74436 | .89468 | .98431 |
| 20.000 | -5.00000 | 2572.39071 | 33.69739 | 513.61562 | .63528 | .74595 | .83999 | .90313 | .74501 | .90313 | .99213 |
| 22.000 | -5.00000 | 2578.11611 | 33.77192 | 514.75152 | .63358 | .73203 | .81715 | .88202 | .72956 | .88202 | .99313 |
| 24.000 | -5.00000 | 2578.93777 | 33.76332 | 514.92529 | .61303 | .71460 | .79832 | .81955 | .71789 | .81955 | .99317 |
| GRADIENT | .00000 | .11079 | .00123 | .01880 | .00664 | .00772 | .00765 | .00714 | .00607 | .00714 | .00708 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
 ARC 11-97-87-094 OA161 ORBITER + RAKES

(FE7804) (02 AUG 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|--------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|---------|
| 1.550 | .000 | -2.00000 | 1574.43616 | 398.83030 | 1039.23260 | .73812 | .74925 | .75057 | .84240 | .95353 | .96495 |
| | 2.000 | -2.00000 | 1573.92516 | 398.70513 | 1038.90645 | .74537 | .75608 | .76730 | .84221 | .95292 | .96415 |
| | 4.000 | -2.00000 | 1573.05887 | 398.48754 | 1038.33949 | .75344 | .76448 | .77344 | .84254 | .95458 | .96354 |
| | 6.000 | -2.00000 | 1573.57761 | 398.62070 | 1038.66648 | .76104 | .77148 | .78091 | .84361 | .95405 | .96348 |
| | 8.000 | -2.00000 | 1574.31830 | 398.81203 | 1039.18500 | .76791 | .77857 | .78418 | .84578 | .95399 | .96355 |
| | 10.000 | -2.00000 | 1574.64066 | 398.88485 | 1039.37476 | .76490 | .77857 | .79023 | .84647 | .95314 | .96180 |
| | 12.000 | -2.00000 | 1574.64332 | 398.93706 | 1039.51079 | .77147 | .78493 | .79721 | .84661 | .95287 | .96017 |
| | 14.000 | -2.00000 | 1574.59084 | 398.87534 | 1039.34938 | .78993 | .79667 | .80597 | .84412 | .95287 | .95724 |
| | 16.000 | -2.00000 | 1575.31898 | 399.06065 | 1039.83284 | .79368 | .80264 | .81097 | .84992 | .95395 | .95753 |
| | 18.000 | -2.00000 | 1575.34929 | 399.06569 | 1039.84596 | .79438 | .80264 | .81690 | .84768 | .95301 | .95753 |
| | 20.000 | -2.00000 | 1574.16429 | 398.76549 | 1039.06374 | .79636 | .80703 | .82309 | .84768 | .95308 | .95711 |
| | 22.000 | -2.00000 | 1574.15891 | 398.76766 | 1039.06939 | .79609 | .81353 | .82505 | .84759 | .93159 | .94871 |
| | 24.000 | -2.00000 | 1574.84804 | 398.94400 | 1039.52830 | .79951 | .81603 | .82766 | .84801 | .93143 | .95889 |
| GRADIENT | | .00000 | -.34433 | -.08559 | -.22328 | .00383 | .00380 | .00319 | .00029 | .00026 | -.00035 |

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|--------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 1.750 | .000 | -2.00000 | 1650.91153 | 310.07685 | 1067.69946 | .71637 | .74053 | .76332 | .90698 | .93114 | .95393 |
| | 2.000 | -2.00000 | 1652.84775 | 310.44413 | 1068.95416 | .72410 | .74818 | .77002 | .90855 | .93263 | .95447 |
| | 4.000 | -2.00000 | 1653.85585 | 310.63168 | 1069.60992 | .72850 | .75072 | .77307 | .91164 | .93376 | .95611 |
| | 6.000 | -2.00000 | 1654.30829 | 310.72412 | 1069.92824 | .73526 | .75597 | .77700 | .91546 | .93617 | .95719 |
| | 8.000 | -2.00000 | 1653.79941 | 310.62094 | 1069.57295 | .74174 | .76187 | .78452 | .91775 | .93787 | .95753 |
| | 10.000 | -2.00000 | 1654.31114 | 310.72391 | 1069.92748 | .74063 | .76754 | .78896 | .91101 | .93531 | .95934 |
| | 12.000 | -2.00000 | 1655.30827 | 310.90964 | 1070.56705 | .74703 | .77563 | .79650 | .90944 | .93925 | .95652 |
| | 14.000 | -2.00000 | 1654.93356 | 310.83946 | 1070.32539 | .76679 | .78337 | .80016 | .92697 | .94355 | .96034 |
| | 16.000 | -2.00000 | 1654.93356 | 310.83946 | 1070.32539 | .77072 | .78707 | .80476 | .92742 | .94378 | .96147 |
| | 18.000 | -2.00000 | 1655.58514 | 310.96767 | 1070.76688 | .76468 | .78853 | .80560 | .91654 | .94078 | .95755 |
| | 20.000 | -2.00000 | 1657.05319 | 311.24283 | 1071.71434 | .76735 | .79365 | .81093 | .91105 | .93727 | .95464 |
| | 22.000 | -2.00000 | 1657.68335 | 311.35872 | 1072.11337 | .77413 | .79858 | .81720 | .90368 | .93382 | .95245 |
| | 24.000 | -2.00000 | 1657.51363 | 311.32766 | 1072.00542 | .77506 | .79825 | .81655 | .90709 | .93028 | .94869 |
| GRADIENT | | .00000 | .73609 | .13871 | .47761 | .00306 | .00255 | .00244 | .00116 | .00065 | .00054 |

(FE7804) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094- 0A161 ORBITER + RWKES.

REFERENCE DATA

SREF = 2590.0000 SQ. FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA =
 AIRLON =
 ELEVON =
 BDFLAP =

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|----------|------------|-----------|------------|---------|--------|--------|--------|--------|--------|--------|
| .000 | -2.00000 | 1846.93443 | 235.90358 | 1094.69649 | .70944 | .75457 | .79406 | .83044 | .86376 | .89557 | .92525 |
| 2.000 | -2.00000 | 1846.41615 | 235.83478 | 1094.37723 | -7.1729 | .76311 | .80058 | .83401 | .86339 | .88959 | .91275 |
| 4.000 | -2.00000 | 1846.47842 | 235.84348 | 1094.41763 | .72689 | .76973 | .80839 | .83351 | .85656 | .87698 | .89461 |
| 6.000 | -2.00000 | 1847.01898 | 235.91540 | 1094.75135 | .73727 | .78075 | .81537 | .84354 | .86598 | .88161 | .89855 |
| 8.000 | -2.00000 | 1846.99838 | 235.91268 | 1094.73875 | .74743 | .78831 | .82042 | .84564 | .86454 | .87715 | .89165 |
| 10.000 | -2.00000 | 1846.95093 | 235.91120 | 1094.73189 | .75465 | .79672 | .82749 | .85100 | .86857 | .88154 | .89584 |
| 12.000 | -2.00000 | 1846.64995 | 235.86971 | 1094.53934 | .75505 | .80103 | .83099 | .85225 | .86655 | .87462 | .88459 |
| 14.000 | -2.00000 | 1847.17949 | 235.94132 | 1094.49269 | .77032 | .80495 | .83362 | .85425 | .86855 | .87622 | .88556 |
| 16.000 | -2.00000 | 1846.84877 | 235.89649 | 1094.66362 | .77458 | .80631 | .83401 | .85462 | .86855 | .87522 | .88356 |
| 18.000 | -2.00000 | 1846.91461 | 235.88947 | 1094.62632 | .77123 | .80905 | .83434 | .85702 | .86833 | .87411 | .88115 |
| 20.000 | -2.00000 | 1847.35541 | 235.95847 | 1094.95123 | .77156 | .81015 | .83725 | .85755 | .86775 | .87375 | .88033 |
| 22.000 | -2.00000 | 1846.82295 | 235.78710 | 1094.15599 | .77169 | .81593 | .84277 | .86332 | .87224 | .87724 | .88303 |
| 24.000 | -2.00000 | 1846.82295 | 235.78710 | 1094.15599 | .78006 | .81693 | .84277 | .86332 | .87224 | .87724 | .88303 |
| GRADIENT | .00000 | -.11399 | -.01502 | -.06971 | .00436 | .00380 | .00358 | .00151 | .00096 | .00073 | .00073 |

MACH = 2.250

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|----------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| .000 | -2.00000 | 2066.32037 | 178.19294 | 1069.48225 | .72324 | .79822 | .85143 | .87776 | .89268 | .90589 |
| 2.000 | -2.00000 | 2059.98480 | 178.16426 | 1069.31013 | .72908 | .80418 | .85857 | .87967 | .89477 | .90916 |
| 4.000 | -2.00000 | 2059.96003 | 178.12785 | 1069.09151 | .73572 | .80461 | .85965 | .88344 | .89832 | .91337 |
| 6.000 | -2.00000 | 2060.01712 | 178.16692 | 1069.32510 | .74537 | .81075 | .86180 | .88330 | .89867 | .91393 |
| 8.000 | -2.00000 | 2060.34868 | 178.19534 | 1069.49567 | .75500 | .81954 | .86587 | .89043 | .90497 | .91947 |
| 10.000 | -2.00000 | 2060.24548 | 178.18653 | 1069.44347 | .77078 | .83007 | .87662 | .90362 | .91734 | .93102 |
| 12.000 | -2.00000 | 2060.24661 | 178.18653 | 1069.44347 | .77620 | .83189 | .87492 | .91734 | .93302 | .94487 |
| 14.000 | -2.00000 | 2060.47052 | 178.20613 | 1069.56143 | .78528 | .83770 | .87683 | .92332 | .94211 | .95487 |
| 16.000 | -2.00000 | 2060.56393 | 178.21377 | 1069.60732 | .78959 | .84027 | .87830 | .92353 | .94259 | .95487 |
| 18.000 | -2.00000 | 2060.03516 | 178.16844 | 1069.33524 | .79697 | .84292 | .87950 | .92064 | .93999 | .95629 |
| 20.000 | -2.00000 | 2060.44946 | 178.20315 | 1069.54353 | .79521 | .84181 | .87351 | .92099 | .93735 | .95359 |
| 22.000 | -2.00000 | 2060.15353 | 178.17854 | 1069.39586 | .79529 | .84672 | .88246 | .91522 | .93365 | .95039 |
| 24.000 | -2.00000 | 2060.04486 | 178.16928 | 1069.34026 | .79251 | .84299 | .87251 | .90628 | .92979 | .95883 |
| GRADIENT | .00000 | -.19239 | -.01627 | -.09767 | .00312 | .00160 | .00205 | .00143 | .00039 | .00037 |

(FETEBOA) (02 AUG 78)

TABULATED DATA - 0A161 (ARC 11-97-87-09A)
ARC 11-97-87-09A 0A161 ORBITER + RAKES

REFERENCE DATA

S.F. = 2690.0000 26. FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.3800 IN. ZMRP = 373.0000 IN. ZO
SCALE = .0300

BETA =
AILRON =
ELEVON = .000
BDFLAP = -7.179

PARAMETRIC DATA

RV/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | ALPHA | BETA | PT | P | OCOMP | 0A2/OC | 062/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|----------|----------|------------|----------|-----------|--------|--------|--------|--------|--------|--------|
| | .000 | -2.00000 | 1497.77222 | 87.59769 | 659.27209 | .67157 | .76808 | .83802 | .83284 | .92875 | .98869 |
| | 2.000 | -2.00000 | 1497.76450 | 87.59732 | 659.26928 | .67487 | .77455 | .84260 | .83328 | .93295 | .98869 |
| | 4.000 | -2.00000 | 1497.75714 | 87.59741 | 659.27001 | .69065 | .78331 | .85458 | .84605 | .94972 | .98869 |
| | 6.000 | -2.00000 | 1497.74226 | 87.59619 | 659.26081 | .70464 | .79554 | .86264 | .85737 | .94927 | .98869 |
| | 8.000 | -2.00000 | 1497.73372 | 87.59582 | 659.26557 | .72166 | .80622 | .86784 | .87235 | .95581 | .98869 |
| | 10.000 | -2.00000 | 1497.72910 | 87.59167 | 659.22676 | .73157 | .81016 | .87055 | .87956 | .95795 | .98869 |
| | 12.000 | -2.00000 | 1498.01534 | 87.61195 | 659.37941 | .74442 | .82119 | .87705 | .89339 | .96616 | .98869 |
| | 14.000 | -2.00000 | 1494.68498 | 87.41497 | 657.89693 | .75458 | .82724 | .87974 | .89276 | .96663 | .98869 |
| | 16.000 | -2.00000 | 1494.60895 | 87.41100 | 657.86705 | .76102 | .83060 | .88066 | .89276 | .96935 | .98869 |
| | 18.000 | -2.00000 | 1495.08078 | 87.43912 | 658.07867 | .76400 | .83079 | .87901 | .89644 | .96935 | .98869 |
| | 20.000 | -2.00000 | 1494.25939 | 87.38984 | 657.70778 | .76437 | .82874 | .87494 | .89408 | .96935 | .98869 |
| | 22.000 | -2.00000 | 1494.70457 | 87.41660 | 657.50915 | .76188 | .82275 | .86925 | .88604 | .96935 | .98869 |
| | 24.000 | -2.00000 | 1494.34550 | 87.43099 | 658.01747 | .76095 | .81828 | .86679 | .87983 | .96935 | .98869 |
| | GRADIENT | .00000 | -.00127 | -.00007 | -.00052 | .00477 | .00381 | .03414 | .00345 | .00249 | .00282 |

RV/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | OCOMP | 0A2/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|----------|----------|------------|----------|-----------|--------|--------|--------|--------|--------|---------|
| | .000 | -2.00000 | 1942.79845 | 51.29598 | 567.38300 | .62979 | .77160 | .87816 | .78371 | .92552 | 1.03208 |
| | 2.000 | -2.00000 | 1939.95328 | 51.22303 | 566.57606 | .63726 | .77982 | .88667 | .79054 | .93309 | 1.03208 |
| | 4.000 | -2.00000 | 1937.25540 | 51.15163 | 565.78629 | .64866 | .78898 | .89235 | .79843 | .93965 | 1.03208 |
| | 6.000 | -2.00000 | 1932.01018 | 51.02006 | 564.33104 | .66892 | .80550 | .90417 | .81921 | .95600 | 1.03208 |
| | 8.000 | -2.00000 | 1931.75623 | 51.01216 | 564.24371 | .69497 | .82161 | .91415 | .84115 | .96780 | 1.03208 |
| | 10.000 | -2.00000 | 1922.19310 | 51.02143 | 564.34621 | .71200 | .83283 | .92284 | .85563 | .97645 | 1.03208 |
| | 12.000 | -2.00000 | 1932.51784 | 51.02796 | 564.41837 | .72493 | .83878 | .92558 | .86476 | .97861 | 1.03208 |
| | 14.000 | -2.00000 | 1931.30788 | 50.98654 | 563.96033 | .74225 | .85112 | .93374 | .88044 | .98931 | 1.03208 |
| | 16.000 | -2.00000 | 1932.10713 | 51.00035 | 564.17945 | .75527 | .86134 | .93784 | .88356 | .99563 | 1.03208 |
| | 18.000 | -2.00000 | 1931.43526 | 50.99056 | 564.00479 | .76210 | .86271 | .93525 | .89129 | .99216 | 1.03208 |
| | 20.000 | -2.00000 | 1931.86769 | 50.99784 | 564.08523 | .76536 | .86211 | .93283 | .89129 | .99504 | 1.03208 |
| | 22.000 | -2.00000 | 1932.01346 | 51.00587 | 564.17412 | .76902 | .86052 | .93135 | .89794 | .99224 | 1.03208 |
| | 24.000 | -2.00000 | 1931.72012 | 50.99329 | 564.10132 | .74974 | .83711 | .90747 | .86786 | .95522 | 1.03208 |
| | GRADIENT | .00000 | -1.38574 | -.03609 | -.39918 | .00472 | .00442 | .03355 | .00393 | .00353 | .00276 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|----------|----------|------------|----------|-----------|--------|--------|--------|--------|--------|---------|
| | .000 | -2.00000 | 2603.07135 | 34.16512 | 520.74471 | .56961 | .74506 | .87765 | .71716 | .69262 | 1.02521 |
| | 2.000 | -2.00000 | 2609.47937 | 34.19432 | 521.03742 | .58072 | .75527 | .89137 | .72770 | .90225 | 1.03934 |
| | 4.000 | -2.00000 | 2610.52899 | 34.19799 | 521.24570 | .59879 | .77128 | .93303 | .74392 | .91641 | 1.04816 |
| | 6.000 | -2.00000 | 2614.11072 | 34.24500 | 521.96236 | .61916 | .78464 | .90971 | .75332 | .92900 | 1.05397 |
| | 8.000 | -2.00000 | 2614.27722 | 34.24722 | 521.99606 | .64969 | .80372 | .92327 | .76441 | .94425 | 1.06441 |
| | 10.000 | -2.00000 | 2619.19357 | 34.31230 | 522.98805 | .67114 | .82082 | .93568 | .76984 | .95953 | 1.07459 |
| | 12.000 | -2.00000 | 2615.71823 | 34.26563 | 522.27669 | .69259 | .83465 | .94537 | .82611 | .97037 | 1.08090 |
| | 14.000 | -2.00000 | 2617.89397 | 34.29432 | 522.71407 | .71128 | .84772 | .95082 | .84450 | .98084 | 1.08394 |
| | 16.000 | -2.00000 | 2615.78174 | 34.26626 | 522.28642 | .72342 | .85676 | .95477 | .85169 | .98503 | 1.07284 |
| | 18.000 | -2.00000 | 2617.10403 | 34.28431 | 522.56139 | .73082 | .85731 | .94905 | .85461 | .98110 | 1.07284 |
| | 20.000 | -2.00000 | 2615.61575 | 34.26406 | 522.25275 | .73365 | .85354 | .94483 | .85417 | .97605 | 1.06535 |
| | 22.000 | -2.00000 | 2619.49893 | 34.31592 | 523.04351 | .72925 | .84180 | .92978 | .84325 | .95991 | 1.04779 |
| | 24.000 | -2.00000 | 2627.04565 | 34.37497 | 523.94358 | .71355 | .82371 | .91634 | .82747 | .93752 | 1.03015 |
| | GRADIENT | .00000 | .61442 | .00222 | .12524 | .00730 | .00355 | .00635 | .00559 | .00955 | .00574 |

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TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

1FET805 (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = 0.000

BETA = .000 ELEVON = .000
 ALLRON = .000 SDFLAP = -7.170

PARAMETRIC DATA

FN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | QCOMP | O42/OC | O52/OC | O52/OC | O54/OC | O54/OC | O54/OC | O54/OC |
|--------|-------|-------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | .0000 | 2636.13434 | 2067.16993 | 568.96451 | .94828 | .95340 | .94940 | .95200 | .94940 | .95200 | .95200 |
| .600 | .000 | .0000 | 2636.42292 | 2057.42532 | 569.02753 | .94388 | .94282 | .94298 | .94388 | .94282 | .94388 | .94388 |
| .600 | .000 | .0000 | 2638.36844 | 2059.84036 | 569.52803 | .94165 | .94077 | .94034 | .94165 | .94077 | .94165 | .94165 |
| .600 | .000 | .0000 | 2635.83572 | 2057.04514 | 568.79053 | .94565 | .94586 | .94565 | .94565 | .94586 | .94565 | .94565 |
| .600 | .000 | .0000 | 2635.20116 | 2057.04875 | 568.95142 | .9444 | .94616 | .9444 | .9444 | .94616 | .9444 | .9444 |
| .600 | .000 | .0000 | 2635.93734 | 2057.10458 | 568.83035 | .94638 | .94638 | .94638 | .94638 | .94638 | .94638 | .94638 |
| .600 | .000 | .0000 | 2635.46613 | 2056.78952 | 568.67651 | .9470 | .9470 | .9470 | .9470 | .9470 | .9470 | .9470 |
| .600 | .000 | .0000 | 2635.11769 | 2057.19876 | 568.91691 | .94724 | .94724 | .94724 | .94724 | .94724 | .94724 | .94724 |
| .600 | .000 | .0000 | 2636.09533 | 2057.16296 | 568.92236 | 1.04312 | 1.04312 | 1.04312 | 1.04312 | 1.04312 | 1.04312 | 1.04312 |
| .600 | .000 | .0000 | 2636.61053 | 2069.99408 | 569.61655 | 1.06268 | 1.06268 | 1.06268 | 1.06268 | 1.06268 | 1.06268 | 1.06268 |
| .600 | .000 | .0000 | 2034.47831 | 2066.12332 | 568.35559 | 1.1095 | 1.1095 | 1.1095 | 1.1095 | 1.1095 | 1.1095 | 1.1095 |
| .600 | .000 | .0000 | 2630.1051 | 2062.55417 | 567.55264 | 1.13991 | 1.14507 | 1.14327 | 1.13991 | 1.14507 | 1.13991 | 1.13991 |
| .600 | .000 | .0000 | 2629.67341 | 2061.72364 | 567.94977 | 1.17613 | 1.16934 | 1.16934 | 1.17613 | 1.16934 | 1.17613 | 1.17613 |
| .600 | .000 | .0000 | .55853 | .41762 | .14089 | .00084 | -.00016 | -.00026 | .00215 | .00215 | .00315 | .00315 |

FN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | QCOMP | O42/OC | O52/OC | O52/OC | O54/OC | O54/OC | O54/OC | O54/OC |
|--------|-------|-------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .900 | .000 | .0000 | 2113.92109 | 1249.92923 | 864.05185 | .82279 | .82276 | .82276 | .82279 | .82276 | .82279 | .82279 |
| .900 | .000 | .0000 | 2112.05286 | 1248.77386 | 863.27893 | .81622 | .81695 | .81695 | .81622 | .81695 | .81622 | .81622 |
| .900 | .000 | .0000 | 2118.18239 | 1252.35219 | 865.83621 | .81872 | .81882 | .81882 | .81872 | .81882 | .81872 | .81872 |
| .900 | .000 | .0000 | 2114.64374 | 1250.29312 | 864.34464 | .81798 | .81745 | .81745 | .81798 | .81745 | .81798 | .81798 |
| .900 | .000 | .0000 | 2110.03122 | 1247.57354 | 862.45758 | .81993 | .82098 | .82098 | .81993 | .82098 | .81993 | .81993 |
| .900 | .000 | .0000 | 2112.73361 | 1249.11799 | 863.61572 | .83378 | .83407 | .83407 | .83378 | .83407 | .83378 | .83378 |
| .900 | .000 | .0000 | 2114.69935 | 1250.25939 | 864.43933 | .85163 | .85163 | .85163 | .85163 | .85163 | .85163 | .85163 |
| .900 | .000 | .0000 | 2111.3337 | 1251.72264 | 865.41364 | .87065 | .87065 | .87065 | .87065 | .87065 | .87065 | .87065 |
| .900 | .000 | .0000 | 2116.02139 | 1251.06811 | 864.96329 | .89856 | .89856 | .89856 | .89856 | .89856 | .89856 | .89856 |
| .900 | .000 | .0000 | 2113.25510 | 1249.47339 | 863.82172 | .91119 | .91291 | .91291 | .91119 | .91291 | .91119 | .91119 |
| .900 | .000 | .0000 | 2111.35150 | 1248.25099 | 863.10052 | .94026 | .94249 | .94249 | .94026 | .94249 | .94026 | .94026 |
| .900 | .000 | .0000 | 2110.78241 | 1247.85742 | 862.92499 | .97157 | .97481 | .97481 | .97157 | .97481 | .97157 | .97157 |
| .900 | .000 | .0000 | 2113.14288 | 1249.36358 | 863.75931 | .99353 | 1.00642 | 1.00642 | .99353 | 1.00642 | .99353 | .99353 |
| .900 | .000 | .0000 | 1.05184 | .60574 | .44609 | -.00102 | -.00036 | -.00036 | -.00102 | -.00036 | -.00102 | -.00102 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

(FE7805) (02 AUG 76)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AILRON = .000 BDFLAR = -7.170

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.200 | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|--------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| ALPHA | .0000 | 2003.78401 | 826.63679 | 1166.30751 | .71743 | .71702 | .71672 | .90348 | .90307 | .90277 |
| 2.000 | .0000 | 2005.93002 | 827.95351 | 1165.34581 | .72236 | .72321 | .72255 | .90581 | .90666 | .90600 |
| 4.000 | .0000 | 2006.95340 | 827.74990 | 1165.05922 | .72382 | .72453 | .72464 | .88695 | .88766 | .88777 |
| 6.000 | .0000 | 2012.21327 | 829.46896 | 1167.47879 | .73206 | .73253 | .73405 | .88853 | .88973 | .89052 |
| 8.000 | .0000 | 2011.68602 | 829.32592 | 1167.27747 | .73943 | .73918 | .74072 | .89322 | .89302 | .89457 |
| 10.000 | .0000 | 2012.05740 | 829.42208 | 1167.41281 | .74552 | .74590 | .74695 | .91754 | .91792 | .91937 |
| 12.000 | .0000 | 2012.68660 | 829.63939 | 1167.71867 | .75747 | .75779 | .75796 | .93705 | .93738 | .93754 |
| 14.000 | .0000 | 2012.78661 | 829.69245 | 1167.79337 | .76896 | .76885 | .76897 | .93874 | .93863 | .93875 |
| 16.000 | .0000 | 2011.04118 | 829.14474 | 1167.02246 | .78462 | .78440 | .78446 | .94503 | .94481 | .94488 |
| 18.000 | .0000 | 2012.20630 | 829.51370 | 1167.54176 | .80417 | .80457 | .80491 | .95140 | .95180 | .95214 |
| 20.000 | .0000 | 2018.50417 | 831.53033 | 1170.38017 | .81934 | .81985 | .82097 | .95325 | .95377 | .95428 |
| 22.000 | .0000 | 2017.94966 | 831.40863 | 1170.20888 | .83391 | .83373 | .83466 | .95602 | .95693 | .95687 |
| 24.000 | .0000 | 2014.63448 | 830.32520 | 1168.68396 | .84507 | .846 2 | .84628 | .96375 | .96480 | .96496 |
| GRADIENT | .00000 | -.70766 | -.22172 | -.31207 | .00160 | .00188 | .00198 | -.00413 | -.00395 | -.00375 |

| MACH = 1.400 | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|--------|------------|-----------|------------|--------|--------|--------|--------|---------|---------|
| ALPHA | .0000 | 2043.25790 | 642.23148 | 1316.08347 | .70717 | .71313 | .72211 | .91914 | .92511 | .93409 |
| 2.000 | .0000 | 2048.25000 | 643.57805 | 1318.84294 | .71617 | .71944 | .72721 | .92122 | .92449 | .93227 |
| 4.000 | .0000 | 2046.36710 | 643.02779 | 1317.71530 | .72405 | .72438 | .73199 | .91955 | .91988 | .92748 |
| 6.000 | .0000 | 2036.66442 | 640.56650 | 1312.67154 | .72587 | .72893 | .73737 | .91314 | .91620 | .92464 |
| 8.000 | .0000 | 2036.48167 | 640.58681 | 1312.71315 | .73527 | .73738 | .74580 | .91396 | .91608 | .92449 |
| 10.000 | .0000 | 2037.06380 | 640.77697 | 1313.10286 | .74377 | .74808 | .75509 | .91468 | .91899 | .92599 |
| 12.000 | .0000 | 2032.87712 | 639.62427 | 1311.74369 | .75342 | .75587 | .76190 | .91926 | .92171 | .92775 |
| 14.000 | .0000 | 2034.53185 | 640.07636 | 1311.66714 | .76520 | .76596 | .77259 | .92226 | .92261 | .92965 |
| 16.000 | .0000 | 2038.71129 | 641.14881 | 1313.86484 | .77006 | .77472 | .78226 | .91867 | .92332 | .93093 |
| 18.000 | .0000 | 2034.88971 | 640.10445 | 1313.86484 | .77228 | .77992 | .78666 | .91642 | .92406 | .93080 |
| 20.000 | .0000 | 2029.02078 | 638.64844 | 1308.74098 | .77983 | .78732 | .79370 | .91754 | .92503 | .93141 |
| 22.000 | .0000 | 2029.79141 | 639.90320 | 1309.26305 | .78885 | .79807 | .80394 | .93093 | .93715 | .94352 |
| 24.000 | .0000 | 2028.09665 | 638.45732 | 1308.36984 | .79029 | .80035 | .80582 | .92176 | .93152 | .93730 |
| GRADIENT | .00000 | .77728 | .19908 | .40796 | .00422 | .00231 | .00247 | .00010 | -.00131 | -.00165 |

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SPEF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.550 | ALPHA | BETA | PT | P | QCOMP | Q42/OC | Q52/OC | Q62/OC | Q44/OC | Q54/OC | Q64/OC |
|--------------|----------|--------|------------|-----------|------------|--------|--------|--------|--------|---------|---------|
| | .000 | .0000 | 1503.54595 | 401.10619 | 1045.16287 | .71902 | .73082 | .74254 | .93407 | .94586 | .95758 |
| | 2.000 | .0000 | 1581.96228 | 401.46997 | 1046.11082 | .72567 | .73719 | .74698 | .93460 | .94613 | .95582 |
| | 4.000 | .0000 | 1581.60326 | 401.36976 | 1045.84969 | .73324 | .74363 | .75348 | .93445 | .94485 | .95469 |
| | 6.000 | .0000 | 1581.71835 | 401.39628 | 1045.91879 | .73960 | .74961 | .75852 | .93391 | .94393 | .95284 |
| | 8.000 | .0000 | 1592.28782 | 401.54744 | 1046.31267 | .74973 | .75754 | .76704 | .93514 | .94535 | .95445 |
| | 10.000 | .0000 | 1584.01578 | 401.96475 | 1047.40005 | .75657 | .76313 | .77254 | .93669 | .94325 | .95254 |
| | 12.000 | .0000 | 1584.74577 | 402.14309 | 1047.86478 | .76570 | .77510 | .77649 | .92748 | .93940 | .95019 |
| | 14.000 | .0000 | 1584.30254 | 402.03269 | 1047.57710 | .76579 | .77409 | .78286 | .93242 | .94272 | .94949 |
| | 16.000 | .0000 | 1584.53708 | 402.09357 | 1047.73572 | .77745 | .78332 | .79011 | .93651 | .94237 | .94917 |
| | 18.000 | .0000 | 1595.24020 | 402.26379 | 1048.17926 | .77467 | .78407 | .79304 | .93931 | .94729 | .95458 |
| | 20.000 | .0000 | 1585.26917 | 402.27295 | 1048.20312 | .77468 | .78457 | .79516 | .92536 | .93565 | .94686 |
| | 22.000 | .0000 | 1584.67165 | 402.12355 | 1047.91384 | .77866 | .79068 | .80090 | .92487 | .93758 | .94710 |
| | 24.000 | .0000 | 1584.25276 | 402.01530 | 1047.53178 | .78708 | .79866 | .80715 | .92498 | .93676 | .94505 |
| | GRADIENT | .00000 | .25428 | .06590 | .17171 | .00355 | .00350 | .00273 | .00010 | -.00025 | -.00072 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | ALPHA | BETA | PT | P | QCOMP | Q42/OC | Q52/OC | Q62/OC | Q44/OC | Q54/OC | Q64/OC |
|--------------|----------|--------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| | .000 | .0000 | 1657.74608 | 311.37225 | 1072.15997 | .71017 | .73398 | .75547 | .91097 | .93478 | .95527 |
| | 2.000 | .0000 | 1657.99976 | 311.41864 | 1072.31970 | .71847 | .74343 | .76395 | .91103 | .93599 | .95651 |
| | 4.000 | .0000 | 1657.20947 | 311.27179 | 1071.81404 | .72541 | .74842 | .76866 | .91453 | .93755 | .95779 |
| | 6.000 | .0000 | 1656.47336 | 311.13422 | 1071.34035 | .73147 | .75343 | .77131 | .91854 | .94050 | .95836 |
| | 8.000 | .0000 | 1657.27676 | 311.28436 | 1071.85733 | .73718 | .75872 | .77600 | .91838 | .93932 | .95720 |
| | 10.000 | .0000 | 1657.32759 | 311.29292 | 1071.88681 | .74665 | .76460 | .78182 | .92192 | .93366 | .95009 |
| | 12.000 | .0000 | 1655.50383 | 311.14958 | 1071.36053 | .74947 | .77354 | .79267 | .91465 | .93272 | .95795 |
| | 14.000 | .0000 | 1657.07622 | 311.24621 | 1071.72593 | .76197 | .77852 | .79430 | .92512 | .94166 | .95744 |
| | 16.000 | .0000 | 1656.50485 | 311.15859 | 1071.42461 | .77094 | .78381 | .79803 | .93021 | .94307 | .95730 |
| | 18.000 | .0000 | 1656.32849 | 311.10677 | 1071.24582 | .77264 | .78984 | .80495 | .92446 | .93965 | .95457 |
| | 20.000 | .0000 | 1655.60373 | 311.19482 | 1071.54903 | .77703 | .79937 | .81502 | .91639 | .93973 | .95437 |
| | 22.000 | .0000 | 1657.27647 | 311.28266 | 1071.85149 | .77496 | .79896 | .81504 | .91197 | .93597 | .95205 |
| | 24.000 | .0000 | 1657.16254 | 311.26139 | 1071.77823 | .77337 | .79593 | .81224 | .90720 | .92976 | .94637 |
| | GRADIENT | .00000 | -.13413 | -.02512 | -.08649 | .00381 | .00361 | .00330 | .00089 | .00069 | .00038 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

PAGE 589

(FE7805) (02 AUG 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | P | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|------------|-----------|------------|---|-------|--------|--------|--------|--------|--------|--------|
| .0000 | 1847.14075 | 235.84824 | 1094.43971 | | | .71738 | .76352 | .80121 | .90385 | .95019 | .98778 |
| .0000 | 1846.77534 | 235.80064 | 1094.21881 | | | .72463 | .77168 | .80823 | .90777 | .95482 | .99137 |
| .0000 | 1847.06482 | 235.83535 | 1094.37987 | | | .73150 | .77804 | .81425 | .90865 | .95318 | .99139 |
| .0000 | 1846.70287 | 235.79072 | 1094.17278 | | | .74086 | .78508 | .81956 | .91460 | .95881 | .99329 |
| .0000 | 1846.84723 | 235.80916 | 1094.25836 | | | .74697 | .78831 | .82131 | .91791 | .95925 | .99225 |
| .0000 | 1847.73077 | 235.93651 | 1094.84930 | | | .75881 | .79745 | .82821 | .92361 | .96215 | .99290 |
| .0000 | 1847.06197 | 235.84271 | 1094.41403 | | | .76374 | .80405 | .83315 | .92443 | .96474 | .99385 |
| .0000 | 1846.76268 | 235.79962 | 1094.21408 | | | .77314 | .81136 | .83949 | .92871 | .96593 | .99506 |
| .0000 | 1846.78920 | 235.81072 | 1094.26558 | | | .78203 | .81100 | .83675 | .93475 | .96372 | .98947 |
| .0000 | 1846.62433 | 235.78563 | 1094.14917 | | | .78602 | .81710 | .84117 | .93433 | .96541 | .98948 |
| .0000 | 1846.85009 | 235.81953 | 1094.30649 | | | .78679 | .82005 | .84564 | .93842 | .96168 | .98727 |
| .0000 | 1846.82697 | 235.81627 | 1094.29134 | | | .78480 | .82123 | .84787 | .91965 | .95608 | .98273 |
| .0000 | 1845.84973 | 235.68645 | 1093.68892 | | | .78780 | .82494 | .85026 | .91559 | .95273 | .97884 |
| .0000 | -.01698 | -.00322 | -.01495 | | | .00353 | .00311 | .00326 | .00117 | .00075 | .00090 |

| MACH = 2.250 | ALPHA | BETA | PT | P | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|------------|-----------|------------|---|-------|--------|--------|--------|--------|--------|---------|
| .0000 | 2059.62274 | 178.13523 | 1068.13588 | | | .71712 | .79392 | .84553 | .89167 | .95847 | 1.02888 |
| .0000 | 2059.69022 | 178.14101 | 1068.17099 | | | .72238 | .79995 | .85350 | .89884 | .97121 | 1.02475 |
| .0000 | 2059.29142 | 178.10249 | 1068.93841 | | | .73051 | .80102 | .85653 | .90884 | .96935 | 1.02486 |
| .0000 | 2059.67896 | 178.13985 | 1069.16425 | | | .74157 | .80980 | .86179 | .90773 | .97596 | 1.02795 |
| .0000 | 2059.63947 | 178.13654 | 1069.14375 | | | .75244 | .82851 | .86694 | .91449 | .98222 | 1.02899 |
| .0000 | 2059.11798 | 178.09175 | 1068.87497 | | | .76562 | .82851 | .87261 | .92445 | .98733 | 1.03144 |
| .0000 | 2058.74341 | 178.05964 | 1068.68224 | | | .77323 | .83188 | .87278 | .93027 | .98891 | 1.02982 |
| .0000 | 2059.55093 | 178.12881 | 1069.09737 | | | .78291 | .83616 | .87956 | .93637 | .99622 | 1.02962 |
| .0000 | 2059.36752 | 178.11318 | 1069.00357 | | | .79185 | .84132 | .87683 | .93932 | .99800 | 1.02430 |
| .0000 | 2058.83890 | 178.06788 | 1068.73170 | | | .79803 | .84656 | .88126 | .93944 | .98798 | 1.02268 |
| .0000 | 2059.20343 | 178.09993 | 1068.91862 | | | .80310 | .84278 | .87959 | .92874 | .97763 | 1.01410 |
| .0000 | 2058.94348 | 178.07670 | 1068.78462 | | | .80310 | .85226 | .88852 | .93502 | .98418 | 1.02044 |
| .0000 | 2058.85312 | 178.06898 | 1068.73825 | | | .74783 | .79816 | .83668 | .86564 | .91687 | .95450 |
| .0000 | -.09532 | -.00818 | -.04911 | | | .00333 | .00178 | .00275 | .00179 | .00022 | .00119 |

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ARC 11-97-87-094 OA161 ORBITER + RAKES

(FE7805) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|----------|--------|------------|----------|-----------|--------|--------|--------|--------|---------|---------|
| | .0000 | .0000 | 1495.02940 | 87.42978 | 658.00838 | .69598 | .78888 | .86963 | .86634 | .96929 | 1.03902 |
| | 2.000 | .0000 | 1495.07198 | 87.43218 | 658.02643 | .70351 | .80395 | .87243 | .86996 | .97040 | 1.03888 |
| | 4.000 | .0000 | 1494.35016 | 87.38912 | 657.70238 | .71075 | .80781 | .88042 | .87883 | .97389 | 1.04650 |
| | 6.000 | .0000 | 1494.94654 | 87.42504 | 657.97277 | .72165 | .81882 | .89818 | .88437 | .98153 | 1.05089 |
| | 8.000 | .0000 | 1495.11034 | 87.43430 | 658.04683 | .73719 | .82942 | .89304 | .89823 | .98045 | 1.05408 |
| | 10.000 | .0000 | 1494.33298 | 87.38847 | 657.69749 | .75080 | .83593 | .89803 | .90915 | .99427 | 1.05657 |
| | 12.000 | .0000 | 1494.98853 | 87.42791 | 657.99431 | .76641 | .84848 | .90492 | .91999 | 1.00207 | 1.05851 |
| | 14.000 | .0000 | 1494.32796 | 87.38815 | 657.69506 | .78184 | .85734 | .90829 | .93180 | 1.00729 | 1.05825 |
| | 16.000 | .0000 | 1494.89258 | 87.42212 | 657.95069 | .78877 | .85887 | .90478 | .93562 | 1.00572 | 1.05163 |
| | 18.000 | .0000 | 1494.35973 | 87.39025 | 657.71090 | .79797 | .86481 | .90951 | .93969 | 1.00652 | 1.05122 |
| | 20.000 | .0000 | 1494.85466 | 87.41989 | 657.93397 | .79983 | .86233 | .90845 | .93653 | 1.00103 | 1.04715 |
| | 22.000 | .0000 | 1494.36290 | 87.39047 | 657.71252 | .79532 | .85560 | .90341 | .92971 | .98959 | 1.03780 |
| | 24.000 | .0000 | 1494.88579 | 87.42173 | 657.94775 | .79604 | .85460 | .90343 | .92467 | .98322 | 1.03205 |
| | GRADIENT | .00000 | -.16982 | -.01016 | -.07650 | .00370 | .00223 | .00295 | .00262 | .00115 | .00187 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|----------|--------|------------|----------|-----------|--------|--------|--------|--------|---------|---------|
| | .000 | .0000 | 1940.57863 | 51.17667 | 565.06326 | .67548 | .83358 | .94072 | .84466 | 1.00276 | 1.10989 |
| | 2.000 | .0000 | 1940.33086 | 51.16886 | 565.97688 | .68478 | .83921 | .95106 | .85311 | 1.00754 | 1.11940 |
| | 4.000 | .0000 | 1939.42018 | 51.14571 | 565.72091 | .69716 | .84761 | .95881 | .86342 | 1.01387 | 1.12507 |
| | 6.000 | .0000 | 1939.65381 | 51.15674 | 565.84290 | .71478 | .86334 | .96797 | .87834 | 1.02690 | 1.13153 |
| | 8.000 | .0000 | 1938.91023 | 51.13770 | 565.63232 | .73905 | .87521 | .97204 | .89937 | 1.03653 | 1.13236 |
| | 10.000 | .0000 | 1939.71480 | 51.16037 | 565.88296 | .75621 | .88634 | .97861 | .91252 | 1.04266 | 1.13493 |
| | 12.000 | .0000 | 1939.08939 | 51.14639 | 565.72841 | .77694 | .90233 | .98620 | .92888 | 1.05477 | 1.13814 |
| | 14.000 | .0000 | 1939.37943 | 51.15133 | 565.78307 | .79198 | .91255 | .99004 | .94142 | 1.06209 | 1.13947 |
| | 16.000 | .0000 | 1938.79555 | 51.13805 | 565.63618 | .80581 | .91650 | .99155 | .95117 | 1.06196 | 1.13691 |
| | 18.000 | .0000 | 1939.37152 | 51.15323 | 565.80401 | .81358 | .91728 | .99001 | .95337 | 1.05707 | 1.13001 |
| | 20.000 | .0000 | 1939.61790 | 51.16009 | 565.87995 | .81358 | .91428 | .98801 | .95449 | 1.05002 | 1.12376 |
| | 22.000 | .0000 | 1938.80849 | 51.13827 | 565.63856 | .81038 | .90245 | .97683 | .94081 | 1.03288 | 1.10726 |
| | 24.000 | .0000 | 1939.35316 | 51.15332 | 565.80502 | .81367 | .90126 | .97828 | .93973 | 1.02733 | 1.10434 |
| | GRADIENT | .00000 | -.28961 | -.00774 | -.08959 | .00542 | .00331 | .00452 | .00469 | .00278 | .00379 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(FE7803) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | OCOMP | 0A2/OC | 052/OC | 082/OC | 0A4/OC | 054/OC | 064/OC |
|--------|----------|--------|------------|----------|-----------|--------|--------|---------|--------|---------|---------|
| 3.500 | .0000 | .0000 | 2633.31985 | 34.57549 | 526.99953 | .62572 | .82024 | .96134 | .78435 | .97888 | 1.11987 |
| | 2.000 | .0000 | 2640.01666 | 34.58445 | 527.13517 | .63385 | .82554 | .97246 | .79212 | .98381 | 1.13073 |
| | 4.000 | .0000 | 2640.99996 | 34.59589 | 527.31057 | .65261 | .84133 | .98012 | .80910 | .99782 | 1.13661 |
| | 6.000 | .0000 | 2644.64435 | 34.64481 | 528.05621 | .66976 | .85211 | .98725 | .82453 | 1.00688 | 1.14202 |
| | 8.000 | .0000 | 2646.62357 | 34.67127 | 528.45953 | .70526 | .87767 | 1.00110 | .85637 | 1.02877 | 1.15220 |
| | 10.000 | .0000 | 2646.80231 | 34.67362 | 528.49525 | .72901 | .89440 | 1.00985 | .87772 | 1.04310 | 1.15855 |
| | 12.000 | .0000 | 2647.35554 | 34.68086 | 528.60566 | .75028 | .90984 | 1.01486 | .89454 | 1.05410 | 1.15912 |
| | 14.000 | .0000 | 2652.42508 | 34.74652 | 529.60644 | .76855 | .91845 | 1.02027 | .90918 | 1.05907 | 1.16090 |
| | 16.000 | .0000 | 2653.07376 | 34.75490 | 529.73420 | .78746 | .92722 | 1.02598 | .92373 | 1.06349 | 1.16225 |
| | 18.000 | .0000 | 2650.25250 | 34.71994 | 529.18607 | .79068 | .92211 | 1.01884 | .92275 | 1.05418 | 1.15091 |
| | 20.000 | .0000 | 2651.57239 | 34.73560 | 529.43997 | .79386 | .91700 | 1.01560 | .92244 | 1.04557 | 1.14418 |
| | 22.000 | .0000 | 2652.55411 | 34.74832 | 523.53383 | .78989 | .90490 | 1.00529 | .91339 | 1.02831 | 1.12879 |
| | 24.000 | .0000 | 2651.96234 | 34.74070 | 529.51771 | .78009 | .89216 | .99484 | .90053 | 1.01261 | 1.11529 |
| | GRADIENT | .00000 | .39504 | .00510 | .07776 | .00672 | .00527 | .00470 | .00619 | .00474 | .00416 |

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|--------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .500 | .000 | 2.00000 | 2628.08527 | 2060.85532 | 567.22995 | .92512 | .92573 | .92528 | 1.14903 | 1.14954 | 1.14919 |
| 2.000 | 2.000 | 2.00000 | 2625.49564 | 2058.85480 | 566.64084 | .88700 | .88813 | .88721 | 1.10776 | 1.10889 | 1.10797 |
| 4.000 | 4.000 | 2.00000 | 2627.76624 | 2060.48969 | 567.27655 | .88001 | .88200 | .88219 | 1.09967 | 1.10165 | 1.10184 |
| 6.000 | 6.000 | 2.00000 | 2627.00054 | 2059.99554 | 567.00510 | .90744 | .90815 | .90803 | 1.11381 | 1.11453 | 1.11441 |
| 8.000 | 8.000 | 2.00000 | 2626.97894 | 2060.00323 | 566.97571 | .92019 | .91870 | .92020 | 1.11652 | 1.11503 | 1.11653 |
| 10.000 | 10.000 | 2.00000 | 2626.30542 | 2059.42654 | 566.87888 | .93186 | .93095 | .93257 | 1.11481 | 1.11390 | 1.11552 |
| 12.000 | 12.000 | 2.00000 | 2626.31223 | 2059.48074 | 567.83148 | .94769 | .94708 | .94908 | 1.11317 | 1.11256 | 1.11455 |
| 14.000 | 14.000 | 2.00000 | 2628.99167 | 2061.44455 | 567.54712 | .96888 | .97009 | .97094 | 1.11406 | 1.11527 | 1.11612 |
| 16.000 | 16.000 | 2.00000 | 2627.44873 | 2060.24384 | 567.20490 | .99728 | .99812 | .99903 | 1.12449 | 1.12532 | 1.12623 |
| 18.000 | 18.000 | 2.00000 | 2626.31006 | 2059.46307 | 566.84638 | 1.02961 | 1.02977 | 1.03145 | 1.13481 | 1.13495 | 1.13654 |
| 20.000 | 20.000 | 2.00000 | 2626.65659 | 2059.71997 | 566.93661 | 1.06830 | 1.07004 | 1.07207 | 1.15200 | 1.15273 | 1.15577 |
| 22.000 | 22.000 | 2.00000 | 2624.28891 | 2057.95145 | 566.33746 | 1.10453 | 1.11075 | 1.10990 | 1.16780 | 1.17332 | 1.17317 |
| 24.000 | 24.000 | 2.00000 | 2623.73047 | 2057.53900 | 566.19147 | 1.13492 | 1.14631 | 1.14572 | 1.17617 | 1.18746 | 1.18697 |
| GRADIENT | | .00000 | -.07975 | -.09139 | .01165 | -.01128 | -.01033 | -.01077 | -.01234 | -.01200 | -.01184 |

MACH =

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|--------|---------|------------|------------|-----------|---------|--------|---------|---------|---------|---------|
| .900 | .000 | 2.00000 | 2112.48575 | 1248.91620 | 863.56955 | .77100 | .77106 | .77078 | 1.02925 | 1.02931 | 1.02903 |
| 2.000 | 2.000 | 2.00000 | 2115.92145 | 1251.04158 | 864.87988 | .76814 | .76698 | .76618 | 1.01165 | 1.01048 | 1.00969 |
| 4.000 | 4.000 | 2.00000 | 2119.15109 | 1252.90967 | 866.24142 | .77042 | .77116 | .77039 | 1.00152 | 1.00225 | 1.00149 |
| 6.000 | 6.000 | 2.00000 | 2117.58701 | 1251.97867 | 865.60834 | .76960 | .77008 | .77023 | .98532 | .98580 | .98595 |
| 8.000 | 8.000 | 2.00000 | 2114.79404 | 1250.37154 | 864.42252 | .77296 | .77323 | .77288 | .97585 | .97611 | .97577 |
| 10.000 | 10.000 | 2.00000 | 2119.07846 | 1252.94972 | 866.12875 | .78793 | .78822 | .78795 | .96721 | .96750 | .96723 |
| 12.000 | 12.000 | 2.00000 | 2115.97958 | 1251.07672 | 864.90225 | .80154 | .80155 | .80183 | .96366 | .96367 | .96395 |
| 14.000 | 14.000 | 2.00000 | 2114.68259 | 1250.28664 | 864.39557 | .81701 | .81705 | .81705 | .96272 | .96290 | .96295 |
| 16.000 | 16.000 | 2.00000 | 2115.92549 | 1251.61702 | 865.28848 | .84064 | .84156 | .84091 | .96740 | .96832 | .96767 |
| 18.000 | 18.000 | 2.00000 | 2117.39859 | 1251.88719 | 865.51141 | .86780 | .86961 | .86864 | .97350 | .97540 | .97443 |
| 20.000 | 20.000 | 2.00000 | 2115.91061 | 1251.01956 | 864.89105 | .89344 | .89473 | .89369 | .97983 | .98112 | .98008 |
| 22.000 | 22.000 | 2.00000 | 2110.44638 | 1247.78032 | 862.66608 | .91882 | .92121 | .92104 | .98835 | .99075 | .99057 |
| 24.000 | 24.000 | 2.00000 | 2109.08810 | 1245.91112 | 862.17700 | .94565 | .95373 | .95431 | .98944 | .99753 | .99811 |
| GRADIENT | | .00000 | 1.66636 | .99836 | .66797 | -.00014 | .00002 | -.00010 | -.00693 | -.00676 | -.00689 |

TABULATED DATA - 0A161 (ARC 11-97-87-084)
ARC 11-97-87-084 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|--------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.200 | .000 | 2.00000 | 2003.55424 | 828.76637 | 1166.48990 | .67933 | .67976 | .67982 | .87552 | .87594 | .87630 |
| 2.000 | 2.000 | 2.00000 | 2008.90266 | 828.44971 | 1166.04420 | .67741 | .67765 | .67896 | .87501 | .87524 | .87656 |
| 4.000 | 4.000 | 2.00000 | 2009.08081 | 829.45160 | 1165.04684 | .68330 | .68390 | .68520 | .87306 | .87355 | .87595 |
| 6.000 | 2.000 | 2.00000 | 2012.49275 | 829.63759 | 1167.67350 | .69010 | .69102 | .69107 | .85904 | .85995 | .86051 |
| 8.000 | 8.000 | 2.00000 | 2012.15798 | 829.57092 | 1167.62230 | .69502 | .69539 | .69672 | .85708 | .86735 | .86879 |
| 10.000 | 10.000 | 2.00000 | 2011.92160 | 829.36009 | 1167.32553 | .70317 | .70337 | .70434 | .85308 | .86326 | .86424 |
| 12.000 | 12.000 | 2.00000 | 2013.54626 | 829.94049 | 1168.14247 | .71392 | .71467 | .71507 | .91130 | .91205 | .91245 |
| 14.000 | 14.000 | 2.00000 | 2015.19950 | 830.40101 | 1168.79065 | .72720 | .72793 | .72837 | .91037 | .91110 | .91154 |
| 16.000 | 16.000 | 2.00000 | 2013.62995 | 829.94411 | 1168.14755 | .74254 | .74328 | .74364 | .90899 | .90963 | .90998 |
| 18.000 | 18.000 | 2.00000 | 2013.23676 | 829.86232 | 1168.03244 | .75956 | .76030 | .76134 | .91750 | .91873 | .91928 |
| 20.000 | 20.000 | 2.00000 | 2017.18059 | 830.97342 | 1169.59631 | .77722 | .77835 | .77926 | .92426 | .92559 | .92630 |
| 22.000 | 22.000 | 2.00000 | 2019.10937 | 831.89906 | 1170.99917 | .79122 | .79239 | .79365 | .92525 | .92662 | .92769 |
| 24.000 | 24.000 | 2.00000 | 2020.01411 | 832.02087 | 1171.57062 | .80186 | .80430 | .80508 | .93072 | .93346 | .93384 |
| GRADIENT | | .00000 | -1.1837 | -3.7669 | -1.11077 | .00099 | .00104 | .00135 | -.00204 | -.00200 | -.00269 |

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|--------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.400 | .000 | 2.00000 | 2044.20187 | 642.54803 | 1316.73218 | .68866 | .69463 | .70286 | .90956 | .91553 | .92376 |
| 2.000 | 2.000 | 2.00000 | 2046.48904 | 643.12830 | 1317.92126 | .69436 | .69780 | .70565 | .91003 | .91346 | .92131 |
| 4.000 | 4.000 | 2.00000 | 2041.44493 | 641.78355 | 1315.16579 | .70260 | .70294 | .71008 | .90711 | .90745 | .91459 |
| 6.000 | 6.000 | 2.00000 | 2044.57449 | 642.62568 | 1316.89333 | .70804 | .70993 | .71756 | .90355 | .90554 | .91317 |
| 8.000 | 8.000 | 2.00000 | 2040.79663 | 641.70628 | 1315.00722 | .71386 | .71547 | .72235 | .90202 | .90363 | .91051 |
| 10.000 | 10.000 | 2.00000 | 2035.77562 | 640.44118 | 1312.41475 | .72329 | .72534 | .73210 | .90397 | .90651 | .91285 |
| 12.000 | 12.000 | 2.00000 | 2036.94429 | 640.72521 | 1312.93680 | .73093 | .73464 | .74031 | .90974 | .90974 | .91541 |
| 14.000 | 14.000 | 2.00000 | 2039.56587 | 641.42471 | 1314.43032 | .74241 | .74432 | .74949 | .90793 | .90884 | .91501 |
| 16.000 | 16.000 | 2.00000 | 2039.80769 | 641.40276 | 1314.38522 | .75370 | .75488 | .76135 | .90325 | .91042 | .91690 |
| 18.000 | 18.000 | 2.00000 | 2039.32877 | 641.26414 | 1314.10118 | .76338 | .76338 | .76614 | .90567 | .90383 | .91660 |
| 20.000 | 20.000 | 2.00000 | 2033.61595 | 639.92600 | 1311.35902 | .76902 | .76902 | .76550 | .90347 | .90711 | .91260 |
| 22.000 | 22.000 | 2.00000 | 2023.59159 | 637.9749 | 1305.76765 | .76537 | .76537 | .76550 | .90347 | .90711 | .91456 |
| 24.000 | 24.000 | 2.00000 | 2021.50355 | 636.67937 | 1304.70592 | .76332 | .76332 | .77820 | .90114 | .90114 | .91632 |
| GRADIENT | | .00000 | -1.68321 | -1.9109 | -1.39160 | .00349 | .00208 | .00181 | -.00061 | -.00202 | -.00229 |

REFERENCE DATA
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 ZREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA
 BETA = 2.000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

MACH = 1.550
 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | P | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|---------|------------|-----------|------------|--------|--------|--------|--------|--------|---------|
| 2.00000 | 1568.49995 | 397.96504 | 1036.97801 | .69310 | .70474 | .71535 | .91542 | .92707 | .93767 |
| 2.00000 | 1570.76030 | 398.53608 | 1038.46595 | .69917 | .71065 | .72066 | .91348 | .92496 | .93497 |
| 2.00000 | 1572.20036 | 398.86619 | 1038.32613 | .70737 | .71878 | .72763 | .91609 | .92749 | .93535 |
| 2.00000 | 1572.37077 | 399.90957 | 1039.43915 | .71570 | .72736 | .73579 | .91392 | .92418 | .93402 |
| 2.00000 | 1573.70795 | 399.25253 | 1040.33262 | .72481 | .73666 | .74278 | .91573 | .92599 | .93370 |
| 2.00000 | 1573.65640 | 399.24512 | 1040.31351 | .73232 | .74431 | .74866 | .91686 | .92605 | .93320 |
| 2.00000 | 1572.64693 | 398.98661 | 1039.63951 | .74050 | .74824 | .75544 | .91864 | .92638 | .93358 |
| 2.00000 | 1572.69780 | 399.00035 | 1039.67572 | .74371 | .75159 | .76046 | .91413 | .92201 | .93089 |
| 2.00000 | 1572.12041 | 398.84843 | 1039.27986 | .74967 | .75614 | .76479 | .91626 | .92274 | .93159 |
| 2.00000 | 1571.97598 | 398.81422 | 1039.19070 | .75689 | .76234 | .76985 | .91808 | .92373 | .93104 |
| 2.00000 | 1574.13762 | 399.36440 | 1040.62433 | .76047 | .76634 | .77477 | .91811 | .92397 | .93240 |
| 2.00000 | 1576.42464 | 399.93516 | 1042.11156 | .76248 | .76843 | .77581 | .91937 | .92432 | .93171 |
| 2.00000 | 1576.93555 | 400.08383 | 1042.43995 | .76677 | .77255 | .77765 | .92031 | .92519 | .93120 |
| .00000 | .92511 | .22529 | .58703 | .00357 | .00351 | .00307 | .00017 | .00011 | -.00033 |

MACH = 1.750
 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | P | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 2.00000 | 1656.77100 | 311.18817 | 1071.52611 | .69676 | .72026 | .73909 | .90994 | .93345 | .95228 |
| 2.00000 | 1655.31691 | 310.91837 | 1070.59709 | .70289 | .72636 | .74476 | .91235 | .93582 | .95423 |
| 2.00000 | 1655.46957 | 310.94656 | 1070.69418 | .70984 | .73436 | .75215 | .91297 | .93749 | .95527 |
| 2.00000 | 1655.59386 | 310.97010 | 1070.77524 | .71547 | .73753 | .75547 | .91417 | .93824 | .95417 |
| 2.00000 | 1656.17558 | 311.07782 | 1071.14615 | .72035 | .74259 | .75939 | .91470 | .93694 | .95374 |
| 2.00000 | 1655.23152 | 311.08652 | 1071.18300 | .72378 | .74880 | .76795 | .91944 | .93546 | .95465 |
| 2.00000 | 1656.29275 | 311.09945 | 1071.22061 | .74479 | .76049 | .77573 | .92286 | .93957 | .95381 |
| 2.00000 | 1656.36481 | 311.11320 | 1071.26796 | .75204 | .76861 | .78578 | .92054 | .93711 | .95429 |
| 2.00000 | 1655.64990 | 310.98056 | 1070.81123 | .76565 | .77847 | .79173 | .92530 | .93912 | .95238 |
| 2.00000 | 1656.12805 | 311.06919 | 1071.11641 | .76889 | .78134 | .79269 | .92538 | .93783 | .94919 |
| 2.00000 | 1656.33903 | 311.11927 | 1071.28868 | .76887 | .77975 | .79289 | .92099 | .93387 | .94700 |
| 2.00000 | 1655.98810 | 311.04332 | 1071.02734 | .76696 | .78472 | .79747 | .91337 | .93112 | .94387 |
| 2.00000 | 1655.65131 | 310.98100 | 1070.81276 | .76922 | .79115 | .80303 | .91054 | .93247 | .94436 |
| .00000 | -.32560 | -.06040 | -.20799 | .00327 | .00253 | .00366 | .00076 | .00101 | .00075 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SDEF = 2693.000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 2.000 ELEVON = .000
AILRON = .000 SDFLAR = -7.770

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| ALPHA .000 | 2.00000 | 1845.98238 | 235.71697 | 1093.83054 | .71441 | .76270 | .79831 | .90823 | .95553 | .98213 |
| 2.000 | 2.00000 | 1845.69219 | 235.68356 | 1093.67549 | .72270 | .76859 | .80338 | .91321 | .95909 | .99368 |
| 4.000 | 2.00000 | 1844.79526 | 235.56110 | 1093.10722 | .72958 | .77674 | .81083 | .91424 | .96140 | .99560 |
| 6.000 | 2.00000 | 1844.06850 | 235.46566 | 1092.66437 | .74180 | .78378 | .81699 | .92192 | .96390 | .99711 |
| 8.000 | 2.00000 | 1845.05512 | 235.59471 | 1093.26320 | .74627 | .78633 | .81869 | .92387 | .96393 | .99630 |
| 10.000 | 2.00000 | 1845.94782 | 235.71702 | 1093.83081 | .75476 | .79473 | .82345 | .92379 | .96376 | .99549 |
| 12.000 | 2.00000 | 1845.39353 | 235.63626 | 1093.45602 | .76751 | .79979 | .82740 | .93592 | .96819 | .99741 |
| 14.000 | 2.00000 | 1846.05315 | 235.72144 | 1093.85130 | .76756 | .80587 | .83315 | .94035 | .97157 | .99562 |
| 16.000 | 2.00000 | 1846.19992 | 235.73932 | 1093.93427 | .78055 | .81176 | .83581 | .94330 | .97328 | .99681 |
| 18.000 | 2.00000 | 1846.65709 | 235.79776 | 1094.20544 | .79240 | .81958 | .84313 | .94608 | .97608 | .99893 |
| 20.000 | 2.00000 | 1847.25053 | 235.88823 | 1094.52527 | .79476 | .82114 | .84853 | .94930 | .97938 | .99959 |
| 22.000 | 2.00000 | 1847.20595 | 235.89139 | 1094.59354 | .79099 | .82315 | .84853 | .92853 | .96138 | .98509 |
| 24.000 | 2.00000 | 1846.34912 | 235.77158 | 1094.08394 | .79480 | .82913 | .85324 | .92712 | .96195 | .98556 |
| GRADIENT | .00000 | -.29651 | -.03997 | -.18083 | .00379 | .00351 | .00313 | .00150 | .00122 | .00094 |

| MACH = 2.250 | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|---------|
| ALPHA .000 | 2.00000 | 2059.21463 | 178.10006 | 1068.92479 | .69518 | .77179 | .82214 | .89820 | .97481 | 1.02516 |
| 2.000 | 2.00000 | 2059.02592 | 178.08647 | 1068.84325 | .70248 | .78020 | .82920 | .90138 | .97909 | 1.02899 |
| 4.000 | 2.00000 | 2059.02257 | 178.11435 | 1069.01056 | .71238 | .78425 | .83661 | .90567 | .97855 | 1.03090 |
| 6.000 | 2.00000 | 2059.19321 | 178.09820 | 1069.91364 | .72756 | .79640 | .84618 | .91678 | .98563 | 1.03354 |
| 8.000 | 2.00000 | 2059.07995 | 178.09938 | 1068.85463 | .73920 | .80455 | .85144 | .92358 | .98833 | 1.03522 |
| 10.000 | 2.00000 | 2059.48034 | 178.12256 | 1069.05883 | .74905 | .81259 | .85344 | .92965 | .99319 | 1.03493 |
| 12.000 | 2.00000 | 2058.62692 | 178.04952 | 1068.62145 | .76197 | .82190 | .86276 | .93748 | .99740 | 1.03626 |
| 14.000 | 2.00000 | 2059.07443 | 178.08733 | 1068.85205 | .77050 | .82307 | .86254 | .94268 | .99525 | 1.03473 |
| 16.000 | 2.00000 | 2058.61589 | 178.04855 | 1068.61565 | .78281 | .83199 | .86803 | .94791 | .99709 | 1.03313 |
| 18.000 | 2.00000 | 2058.53250 | 178.04136 | 1068.57249 | .78697 | .83535 | .87092 | .94603 | .99401 | 1.02999 |
| 20.000 | 2.00000 | 2058.52417 | 178.04055 | 1068.56763 | .79223 | .83400 | .86793 | .94720 | .99907 | 1.02759 |
| 22.000 | 2.00000 | 2058.59705 | 178.04656 | 1068.60429 | .78293 | .82915 | .86800 | .93063 | .97725 | 1.02571 |
| 24.000 | 2.00000 | 2058.37756 | 178.02781 | 1068.49115 | .80504 | .85546 | .89076 | .94842 | .99334 | 1.02414 |
| GRADIENT | .00000 | -.04199 | -.03357 | -.02144 | .00430 | .00320 | .00362 | .00212 | .00094 | .00044 |

(FE7906) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RNVL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 0M2/OC | 052/OC | 062/OC | 0M4/OC | 054/OC | 064/OC |
|----------|--------|---------|------------|----------|-----------|--------|--------|--------|--------|---------|---------|
| 2.500 | .000 | 2.00000 | 1487.32057 | 86.97802 | 654.60834 | .70813 | .81732 | .86616 | .89560 | 1.00478 | 1.07353 |
| 2.000 | 2.000 | 2.00000 | 1487.99101 | 87.01836 | 654.91200 | .71421 | .81967 | .86963 | .90135 | 1.00681 | 1.07297 |
| 4.000 | 4.000 | 2.00000 | 1487.96725 | 87.01707 | 654.90229 | .72245 | .82654 | .86676 | .90432 | 1.00841 | 1.07662 |
| 6.000 | 6.000 | 2.00000 | 1487.96211 | 87.01669 | 654.89943 | .73690 | .83792 | .86516 | .91409 | 1.01511 | 1.08236 |
| 8.000 | 8.000 | 2.00000 | 1487.95708 | 87.01653 | 654.89824 | .75605 | .85065 | .86123 | .92843 | 1.02303 | 1.08362 |
| 10.000 | 10.000 | 2.00000 | 1487.91705 | 87.01443 | 654.88243 | .77141 | .86182 | .86928 | .94140 | 1.03181 | 1.08628 |
| 12.000 | 12.000 | 2.00000 | 1487.93314 | 87.01538 | 654.88955 | .78544 | .86987 | .87336 | .94562 | 1.03346 | 1.08555 |
| 14.000 | 14.000 | 2.00000 | 1487.92639 | 87.01483 | 654.88538 | .79639 | .87172 | .87202 | .95767 | 1.03240 | 1.08430 |
| 16.000 | 16.000 | 2.00000 | 1487.94725 | 87.01604 | 654.89454 | .80566 | .87274 | .87405 | .96416 | 1.03131 | 1.08255 |
| 18.000 | 18.000 | 2.00000 | 1487.92914 | 87.01502 | 654.88682 | .80825 | .87261 | .87564 | .96202 | 1.02651 | 1.07894 |
| 20.000 | 20.000 | 2.00000 | 1487.96275 | 87.01727 | 654.90379 | .81501 | .87564 | .88195 | .96221 | 1.02284 | 1.07369 |
| 22.000 | 22.000 | 2.00000 | 1487.95438 | 87.01694 | 654.90131 | .82226 | .88195 | .88467 | .95081 | 1.02041 | 1.06573 |
| 24.000 | 24.000 | 2.00000 | 1487.98357 | 87.01867 | 654.91432 | .82416 | .88467 | .93436 | .95330 | 1.01582 | 1.06551 |
| GRADIENT | | .00000 | .16166 | .00976 | .07349 | .00358 | .00230 | .00265 | .00218 | .00090 | .00125 |

RNVL = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 0M2/OC | 052/OC | 062/OC | 0M4/OC | 054/OC | 064/OC |
|----------|--------|---------|------------|----------|-----------|--------|--------|---------|---------|---------|---------|
| 3.000 | .000 | 2.00000 | 1939.15904 | 51.12361 | 565.47639 | .72783 | .89731 | 1.00122 | .90671 | 1.07619 | 1.18010 |
| 2.000 | 2.000 | 2.00000 | 1940.13321 | 51.14938 | 565.76151 | .73417 | .90101 | 1.01013 | .91217 | 1.07980 | 1.18612 |
| 4.000 | 4.000 | 2.00000 | 1939.45256 | 51.13434 | 565.59507 | .74206 | .90716 | 1.01431 | .91703 | 1.08213 | 1.19288 |
| 6.000 | 6.000 | 2.00000 | 1939.50688 | 51.13526 | 565.60524 | .76234 | .92199 | 1.02287 | .93406 | 1.09371 | 1.19460 |
| 8.000 | 8.000 | 2.00000 | 1939.64354 | 51.14013 | 565.65913 | .79636 | .94447 | 1.03791 | .95873 | 1.10664 | 1.20007 |
| 10.000 | 10.000 | 2.00000 | 1937.17825 | 51.07750 | 564.96639 | .80405 | .94562 | 1.04463 | .96930 | 1.11067 | 1.19888 |
| 12.000 | 12.000 | 2.00000 | 1938.09195 | 51.10284 | 565.24663 | .82579 | .95651 | 1.04201 | .98942 | 1.11914 | 1.20464 |
| 14.000 | 14.000 | 2.00000 | 1937.60146 | 51.08700 | 565.07146 | .84644 | .96536 | 1.04907 | 1.00440 | 1.12331 | 1.20732 |
| 16.000 | 16.000 | 2.00000 | 1939.26842 | 51.13221 | 565.57153 | .85529 | .96328 | 1.04743 | 1.00891 | 1.11690 | 1.20105 |
| 18.000 | 18.000 | 2.00000 | 1938.53779 | 51.11276 | 565.35637 | .86500 | .96555 | 1.04784 | 1.01342 | 1.11397 | 1.19626 |
| 20.000 | 20.000 | 2.00000 | 1938.72614 | 51.12192 | 565.45771 | .86844 | .96494 | 1.04632 | 1.01028 | 1.10738 | 1.18876 |
| 22.000 | 22.000 | 2.00000 | 1938.94917 | 51.12888 | 565.53468 | .86444 | .95817 | 1.03911 | 1.00131 | 1.09505 | 1.17598 |
| 24.000 | 24.000 | 2.00000 | 1938.90468 | 51.12836 | 565.52891 | .85917 | .96259 | 1.03389 | .98976 | 1.08318 | 1.16448 |
| GRADIENT | | .00000 | .07340 | .00268 | .02967 | .00356 | .00216 | .00327 | .00238 | .00148 | .00229 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
SREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RMWL = 1.99 GRADIENT INTERVAL = -5.00/ 5 00

BETA = 2.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | OCOMP | 0M2AOC | 052AOC | 062AOC | 0M4AOC | 05AADC | 06AADC |
|----------|--------|---------|------------|----------|-----------|--------|--------|---------|--------|---------|---------|
| 3.500 | .000 | 2.00000 | 2667.88812 | 34.95021 | 532.71109 | .68562 | .89705 | 1.03279 | .85817 | 1.06959 | 1.20534 |
| 2.000 | 2.000 | 2.00000 | 2667.98584 | 34.95149 | 532.73955 | .69480 | .90387 | 1.04244 | .86766 | 1.07582 | 1.21529 |
| 4.000 | 4.000 | 2.00000 | 2667.55579 | 34.94600 | 532.64699 | .70947 | 91428 | 1.04981 | .87922 | 1.08403 | 1.21957 |
| 6.000 | 6.000 | 2.00000 | 2668.66705 | 34.96039 | 532.88630 | .72967 | .93108 | 1.06161 | .88744 | 1.09885 | 1.22938 |
| 8.000 | 8.000 | 2.00000 | 2669.83286 | 34.95260 | 532.89938 | .75070 | .94650 | 1.06797 | .91500 | 1.11080 | 1.23227 |
| 10.000 | 10.000 | 2.00000 | 2667.49628 | 34.94465 | 532.62630 | .78332 | .96065 | 1.07646 | .94421 | 1.12154 | 1.23734 |
| 12.000 | 12.000 | 2.00000 | 2668.69775 | 34.97392 | 533.07244 | .80599 | .97037 | 1.08427 | .96243 | 1.12681 | 1.24070 |
| 14.000 | 14.000 | 2.00000 | 2668.85501 | 34.96312 | 532.90790 | .82415 | .97390 | 1.09110 | .97708 | 1.12882 | 1.24302 |
| 16.000 | 16.000 | 2.00000 | 2669.65961 | 34.97344 | 533.06512 | .84214 | .98072 | 1.09306 | .99012 | 1.12870 | 1.24104 |
| 18.000 | 18.000 | 2.00000 | 2668.67300 | 34.96078 | 532.87227 | .86236 | .98109 | 1.08905 | .99432 | 1.12303 | 1.23093 |
| 20.000 | 20.000 | 2.00000 | 2670.18885 | 34.98034 | 533.17038 | .85100 | .97510 | 1.08179 | .98922 | 1.11332 | 1.22002 |
| 22.000 | 22.000 | 2.00000 | 2668.19308 | 34.95369 | 532.76417 | .84523 | .96769 | 1.07742 | .97731 | 1.09876 | 1.20949 |
| 24.000 | 24.000 | 2.00000 | 2670.01163 | 34.97799 | 533.13456 | .83236 | .95309 | 1.06239 | .96074 | 1.08447 | 1.19078 |
| GRADIENT | | .00000 | -.08307 | -.00105 | -.01603 | .00596 | .00431 | .00426 | .00526 | .00364 | .00356 |

(FE7807) (02 AUG 75)

PARAMETRIC DATA

BETA = 5.000 ELEVOM = .000
AILRON = .000 BDFLAP = -7.178

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. YMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|--------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | 5.00000 | 2624.00095 | 2057.68289 | 566.31805 | .84792 | .84712 | .84710 | 1.10511 | 1.10431 | 1.10429 |
| .000 | 2.000 | 5.00000 | 2623.93231 | 2057.61972 | 566.31259 | .86904 | .86869 | .86900 | 1.08180 | 1.08180 | 1.08197 |
| 4.000 | 4.000 | 5.00000 | 2624.85635 | 2058.36877 | 566.48758 | .81767 | .81899 | .82068 | 1.07063 | 1.07195 | 1.07365 |
| 6.000 | 6.000 | 5.00000 | 2627.65573 | 2060.37476 | 567.28098 | .83428 | .83454 | .83482 | 1.07270 | 1.07296 | 1.07324 |
| 8.000 | 8.000 | 5.00000 | 2625.01135 | 2058.40189 | 566.60947 | .83735 | .83753 | .83780 | 1.05860 | 1.05878 | 1.05905 |
| 10.000 | 10.000 | 5.00000 | 2625.86368 | 2059.00568 | 566.85800 | .84583 | .84640 | .84693 | 1.05911 | 1.05911 | 1.05921 |
| 12.000 | 12.000 | 5.00000 | 2624.17407 | 2057.86670 | 566.30737 | .86523 | .86530 | .86544 | 1.07201 | 1.07201 | 1.07201 |
| 14.000 | 14.000 | 5.00000 | 2624.36069 | 2058.02087 | 566.33981 | .89129 | .89289 | .89190 | 1.07043 | 1.07043 | 1.07043 |
| 16.000 | 16.000 | 5.00000 | 2624.72836 | 2058.21182 | 566.51654 | .91692 | .91762 | .91781 | 1.07777 | 1.07777 | 1.07777 |
| 18.000 | 18.000 | 5.00000 | 2627.18732 | 2059.98523 | 567.26209 | .95060 | .95149 | .95210 | 1.08433 | 1.08433 | 1.08522 |
| 20.000 | 20.000 | 5.00000 | 2627.48154 | 2060.22818 | 567.25336 | .99823 | .99834 | .99781 | 1.10403 | 1.10403 | 1.10560 |
| 22.000 | 22.000 | 5.00000 | 2625.04254 | 2058.51157 | 566.53098 | 1.03207 | 1.03511 | 1.03812 | 1.11937 | 1.11937 | 1.12541 |
| 24.000 | 24.000 | 5.00000 | 2625.90552 | 2059.18518 | 566.72034 | 1.06194 | 1.07239 | 1.07450 | 1.12505 | 1.12505 | 1.13751 |
| GRADIENT | | .00000 | .21357 | .17145 | .04238 | -.00756 | -.00733 | -.00660 | -.00862 | -.00809 | -.00756 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|--------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .000 | 2.000 | 5.00000 | 2111.48715 | 1248.50783 | 862.97934 | .69526 | .69483 | .69415 | .96927 | .96883 | .96815 |
| 4.000 | 4.000 | 5.00000 | 2115.43283 | 1250.78174 | 864.65109 | .69501 | .69504 | .69498 | .97717 | .97721 | .97715 |
| 6.000 | 6.000 | 5.00000 | 2117.10138 | 1251.73029 | 865.37109 | .69386 | .69473 | .69401 | .95780 | .95867 | .95794 |
| 8.000 | 8.000 | 5.00000 | 2114.79214 | 1250.37328 | 864.41888 | .69388 | .69331 | .69333 | .94376 | .94319 | .94321 |
| 10.000 | 10.000 | 5.00000 | 2109.96957 | 1247.40634 | 862.56323 | .69703 | .69671 | .69762 | .93024 | .92998 | .93083 |
| 12.000 | 12.000 | 5.00000 | 2116.56833 | 1251.47731 | 865.09103 | .71335 | .71386 | .71402 | .92439 | .92430 | .92507 |
| 14.000 | 14.000 | 5.00000 | 2112.71036 | 1249.90517 | 865.14941 | .72688 | .72684 | .72654 | .91759 | .91754 | .91763 |
| 16.000 | 16.000 | 5.00000 | 2114.90735 | 1250.43449 | 864.47287 | .74264 | .74285 | .74287 | .91644 | .91654 | .91665 |
| 18.000 | 18.000 | 5.00000 | 2115.76746 | 1250.94667 | 864.82060 | .76206 | .76311 | .76341 | .91844 | .91950 | .91980 |
| 20.000 | 20.000 | 5.00000 | 2108.11169 | 1246.37889 | 861.73282 | .78261 | .78407 | .78445 | .91956 | .92102 | .92140 |
| 22.000 | 22.000 | 5.00000 | 2109.97089 | 1247.37915 | 865.27884 | .80839 | .81026 | .81062 | .92721 | .92908 | .92944 |
| 24.000 | 24.000 | 5.00000 | 2116.70166 | 1251.42284 | 865.27884 | .84135 | .84377 | .84453 | .94148 | .94389 | .94466 |
| GRADIENT | | .00000 | 1.40354 | .80562 | .59794 | -.00035 | -.00002 | -.00004 | -.00787 | -.00754 | -.00755 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(FEB78) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 AILRON = .000 EDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SREF = 933.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|-------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.200 | .000 | 5.00000 | 2011.53369 | 829.44221 | 1167.44115 | .61583 | .61657 | .61707 | .83276 | .83351 | .83400 |
| 2.000 | .000 | 5.00000 | 2009.60754 | 828.83453 | 1166.58583 | .61486 | .61486 | .61583 | .83983 | .84035 | .84130 |
| 4.000 | .000 | 5.00000 | 2010.79175 | 829.08212 | 1166.93431 | .62034 | .62034 | .62205 | .82974 | .83091 | .83145 |
| 6.000 | .000 | 5.00000 | 2013.55270 | 830.00262 | 1168.22992 | .62802 | .62935 | .62935 | .82074 | .82205 | .82218 |
| 8.000 | .000 | 5.00000 | 2013.06412 | 829.84943 | 1168.01431 | .63413 | .63539 | .63565 | .82409 | .82535 | .82553 |
| 10.000 | .000 | 5.00000 | 2013.08351 | 829.88534 | 1168.06627 | .64562 | .64644 | .64735 | .84634 | .84715 | .84807 |
| 12.000 | .000 | 5.00000 | 2013.92958 | 830.14628 | 1168.43494 | .65256 | .65319 | .65423 | .85556 | .85624 | .85728 |
| 14.000 | .000 | 5.00000 | 2014.49097 | 830.35471 | 1168.72548 | .66119 | .66259 | .66385 | .86385 | .86428 | .86524 |
| 16.000 | .000 | 5.00000 | 2014.72244 | 830.37983 | 1168.76085 | .67748 | .67843 | .67924 | .86385 | .86482 | .86562 |
| 18.000 | .000 | 5.00000 | 2016.26015 | 830.79547 | 1169.34586 | .69615 | .69739 | .69870 | .87457 | .87631 | .87712 |
| 20.000 | .000 | 5.00000 | 2018.08566 | 831.44070 | 1170.25401 | .71376 | .71616 | .71672 | .88083 | .88378 | .88578 |
| 22.000 | .000 | 5.00000 | 2016.50551 | 830.88952 | 1163.47824 | .72755 | .73052 | .73085 | .88182 | .88478 | .88512 |
| 24.000 | .000 | 5.00000 | 2018.10297 | 831.41154 | 1170.21298 | .74452 | .74811 | .74857 | .88425 | .88764 | .88830 |
| GRADIENT | | .00000 | -.18549 | -.09002 | -.12671 | .00113 | .00123 | .00124 | -.00076 | -.00055 | -.00054 |

| MACH | ALPHA | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|-------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.400 | .000 | 5.00000 | 2051.64871 | 644.49467 | 1320.72128 | .64807 | .65387 | .65056 | .68952 | .69532 | .69201 |
| 2.000 | .000 | 5.00000 | 2052.59506 | 644.77777 | 1321.30142 | .64769 | .65132 | .65795 | .68442 | .68605 | .68469 |
| 4.000 | .000 | 5.00000 | 2045.37286 | 642.84837 | 1317.34763 | .65465 | .65835 | .66424 | .68060 | .68431 | .68220 |
| 6.000 | .000 | 5.00000 | 2043.72665 | 642.43147 | 1316.49332 | .65943 | .66209 | .66787 | .67752 | .68018 | .68095 |
| 8.000 | .000 | 5.00000 | 2038.74538 | 641.18606 | 1313.94118 | .66495 | .66804 | .67349 | .67528 | .67836 | .68381 |
| 10.000 | .000 | 5.00000 | 2037.39092 | 640.82363 | 1313.19847 | .67374 | .67695 | .68135 | .67527 | .67848 | .68292 |
| 12.000 | .000 | 5.00000 | 2038.57906 | 641.10638 | 1313.77768 | .68113 | .68440 | .68904 | .67601 | .67928 | .68393 |
| 14.000 | .000 | 5.00000 | 2044.59929 | 642.08685 | 1315.78711 | .69505 | .69786 | .70248 | .68098 | .68369 | .68931 |
| 16.000 | .000 | 5.00000 | 2042.24944 | 642.08685 | 1315.78711 | .71045 | .71279 | .71510 | .68223 | .68427 | .68992 |
| 18.000 | .000 | 5.00000 | 2029.50903 | 638.78069 | 1309.01199 | .71054 | .71855 | .72348 | .67642 | .67928 | .68419 |
| 20.000 | .000 | 5.00000 | 2032.02077 | 639.50005 | 1310.48613 | .71506 | .72910 | .73435 | .67642 | .67928 | .68419 |
| 22.000 | .000 | 5.00000 | 2035.48625 | 640.41441 | 1312.35988 | .72385 | .73167 | .73567 | .67706 | .67901 | .68483 |
| 24.000 | .000 | 5.00000 | 2020.62016 | 635.51413 | 1304.36728 | .72579 | .73167 | .73567 | .67901 | .67901 | .68483 |
| GRADIENT | | .00000 | -1.56897 | -.41158 | -.84341 | .00164 | .00112 | .00092 | -.00223 | -.00275 | -.00295 |

TABULATED DATA - 0A161 (ARC 11-97-97-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 5.000 ELEVON = .000
AIRLON = .000 SOFLAR = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.550 | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 074/OC | 084/OC | 094/OC | 064/OC |
|--------------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|---------|
| ALPHA .000 | 5.00000 | 1561.82259 | 396.34618 | 1032.75972 | .64532 | .65796 | .66658 | .68239 | .69503 | .70503 | .654/OC |
| 2.000 | 5.00000 | 1563.04628 | 396.65676 | 1033.56905 | .64509 | .65912 | .66764 | .68007 | .69410 | .70410 | .654/OC |
| 4.000 | 5.00000 | 1563.16922 | 396.65547 | 1033.59172 | .65122 | .66568 | .67272 | .68205 | .69651 | .70651 | .654/OC |
| 6.000 | 5.00000 | 1563.46620 | 396.74025 | 1033.78656 | .66433 | .67531 | .68382 | .69374 | .70472 | .71472 | .654/OC |
| 8.000 | 5.00000 | 1567.32949 | 397.71354 | 1036.32269 | .67740 | .68753 | .69534 | .70428 | .71402 | .72376 | .654/OC |
| 10.000 | 5.00000 | 1572.23986 | 398.95424 | 1039.55556 | .68555 | .69448 | .70251 | .71178 | .72120 | .73077 | .654/OC |
| 12.000 | 5.00000 | 1570.17735 | 398.42982 | 1038.18909 | .68965 | .69805 | .70579 | .71385 | .72214 | .73056 | .654/OC |
| 14.000 | 5.00000 | 1568.15354 | 397.32425 | 1036.87173 | .69934 | .70679 | .71328 | .71990 | .72664 | .73351 | .654/OC |
| 16.000 | 5.00000 | 1568.63318 | 398.03831 | 1037.16893 | .70354 | .71085 | .71718 | .72364 | .73022 | .73691 | .654/OC |
| 18.000 | 5.00000 | 1568.80666 | 398.07167 | 1037.25596 | .72311 | .72992 | .73617 | .74177 | .74731 | .75279 | .654/OC |
| 20.000 | 5.00000 | 1568.97487 | 398.12064 | 1037.39345 | .73425 | .74136 | .74782 | .75363 | .75939 | .76509 | .654/OC |
| 22.000 | 5.00000 | 1571.11573 | 398.66989 | 1038.91450 | .74046 | .74583 | .75117 | .75659 | .76209 | .76759 | .654/OC |
| 24.000 | 5.00000 | 1571.43858 | 398.73846 | 1038.93330 | .74046 | .74583 | .75117 | .75659 | .76209 | .76759 | .654/OC |
| GRADIENT | .00000 | .33665 | .07983 | .20800 | .00148 | .00193 | .00153 | -.00008 | -.00037 | -.00003 | .00003 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | BETA | PT | P | OCOMP | 042/OC | 052/OC | 062/OC | 074/OC | 084/OC | 094/OC | 064/OC |
|--------------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|---------|
| ALPHA .000 | 5.00000 | 1655.65865 | 310.98268 | 1070.81954 | .67207 | .68661 | .71400 | .69387 | .69441 | .69441 | .654/OC |
| 2.000 | 5.00000 | 1655.87311 | 311.02239 | 1070.95529 | .67918 | .70086 | .71756 | .69098 | .69265 | .69441 | .654/OC |
| 4.000 | 5.00000 | 1655.81648 | 311.01186 | 1070.91904 | .68275 | .70574 | .72153 | .69469 | .69768 | .69441 | .654/OC |
| 6.000 | 5.00000 | 1656.53960 | 311.14603 | 1071.38103 | .68271 | .71336 | .72873 | .69738 | .69803 | .69441 | .654/OC |
| 8.000 | 5.00000 | 1655.73943 | 310.99725 | 1070.86871 | .70341 | .72212 | .73957 | .69024 | .69284 | .69441 | .654/OC |
| 10.000 | 5.00000 | 1655.74200 | 310.93660 | 1070.87354 | .70791 | .72684 | .74012 | .69106 | .69309 | .69441 | .654/OC |
| 12.000 | 5.00000 | 1654.84193 | 310.82005 | 1070.23854 | .71711 | .73165 | .74658 | .69169 | .69343 | .69441 | .654/OC |
| 14.000 | 5.00000 | 1656.26360 | 311.09286 | 1071.19794 | .72361 | .73634 | .74927 | .69369 | .69561 | .69441 | .654/OC |
| 16.000 | 5.00000 | 1655.02957 | 311.03456 | 1071.05038 | .73068 | .74405 | .75769 | .69495 | .69733 | .69441 | .654/OC |
| 18.000 | 5.00000 | 1655.02122 | 310.89534 | 1070.38005 | .73915 | .75080 | .76266 | .69711 | .69976 | .69441 | .654/OC |
| 20.000 | 5.00000 | 1654.73304 | 310.79940 | 1070.18747 | .74409 | .75633 | .76935 | .69730 | .69955 | .69441 | .654/OC |
| 22.000 | 5.00000 | 1655.71509 | 310.98600 | 1070.82997 | .74839 | .76137 | .77535 | .69507 | .69723 | .69441 | .654/OC |
| 24.000 | 5.00000 | 1656.66179 | 311.16761 | 1071.45531 | .75222 | .76392 | .77638 | .69104 | .69273 | .69441 | .654/OC |
| GRADIENT | .00000 | .03946 | .00730 | .02512 | .00267 | .00228 | .00188 | .00120 | .00082 | .00082 | .00082 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA
BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|-------|---------|------------|-----------|------------|--------|--------|--------|--------|---------|---------|
| 2.000 | .000 | 5.00000 | 1874.93884 | 234.25348 | 1087.03931 | .70159 | .74708 | .77714 | .91895 | .96443 | .99449 |
| 2.000 | .000 | 5.00000 | 1830.93913 | 233.73630 | 1084.73218 | .70461 | .74995 | .78079 | .92067 | .96600 | .99685 |
| 4.000 | .000 | 5.00000 | 1831.46327 | 233.83033 | 1085.07568 | .71104 | .75222 | .78383 | .92183 | .96301 | .99462 |
| 6.000 | .000 | 5.00000 | 1831.73577 | 233.86808 | 1085.25089 | .72148 | .76257 | .79274 | .92519 | .96628 | .99844 |
| 8.000 | .000 | 5.00000 | 1834.07381 | 234.17432 | 1086.67477 | .73606 | .77598 | .80405 | .93294 | .97287 | 1.00094 |
| 10.000 | .000 | 5.00000 | 1836.11595 | 234.42052 | 1087.81444 | .74930 | .78347 | .81250 | .94017 | .97434 | 1.00337 |
| 12.000 | .000 | 5.00000 | 1836.10439 | 234.41899 | 1087.80734 | .75307 | .79087 | .81720 | .94991 | .97771 | 1.00404 |
| 14.000 | .000 | 5.00000 | 1841.38962 | 235.10691 | 1090.99950 | .76568 | .79567 | .82294 | .95615 | .97514 | 1.00241 |
| 16.000 | .000 | 5.00000 | 1843.86311 | 236.19734 | 1096.05969 | .77326 | .80177 | .82904 | .96117 | .97469 | 1.00195 |
| 18.000 | .000 | 5.00000 | 1849.98158 | 236.21837 | 1096.15729 | .77262 | .80056 | .82328 | .95962 | .96756 | .99028 |
| 20.000 | .000 | 5.00000 | 1845.65545 | 235.66004 | 1093.56639 | .78146 | .80532 | .82968 | .94093 | .96580 | .98336 |
| 22.000 | .000 | 5.00000 | 1847.52986 | 235.89360 | 1094.65019 | .79639 | .81824 | .84479 | .94702 | .96888 | .99343 |
| 24.000 | .000 | 5.00000 | 1848.52892 | 236.04575 | 1095.35625 | .80045 | .82285 | .84931 | .94050 | .96290 | .98935 |
| GRADIENT | | .00000 | -.86914 | -.10579 | -.49091 | .00236 | .00129 | .00167 | .00072 | -.00035 | .00003 |

| MACH | ALPHA | BETA | PT | P | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|----------|-------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 2.250 | .000 | 5.00000 | 2059.36877 | 178.11419 | 1069.00958 | .72740 | .80059 | .84677 | .94095 | .98424 | 1.06032 |
| 2.000 | .000 | 5.00000 | 2058.48529 | 178.03863 | 1068.55612 | .73215 | .80439 | .84940 | .94154 | 1.01378 | 1.05880 |
| 4.000 | .000 | 5.00000 | 2059.33249 | 178.11115 | 1068.99139 | .73294 | .80344 | .85082 | .94088 | 1.01137 | 1.05876 |
| 6.000 | .000 | 5.00000 | 2059.45581 | 178.12163 | 1069.05426 | .74702 | .81460 | .85744 | .95336 | 1.02093 | 1.06377 |
| 8.000 | .000 | 5.00000 | 2058.44626 | 178.03483 | 1068.53333 | .76572 | .83116 | .87308 | .96410 | 1.02954 | 1.07146 |
| 10.000 | .000 | 5.00000 | 2059.21469 | 178.10055 | 1068.92778 | .78064 | .83880 | .87860 | .96842 | 1.02558 | 1.06338 |
| 12.000 | .000 | 5.00000 | 2058.72952 | 178.05987 | 1068.67738 | .78501 | .83919 | .88021 | .96917 | 1.02235 | 1.06337 |
| 14.000 | .000 | 5.00000 | 2058.33539 | 178.02506 | 1068.47436 | .79818 | .85197 | .89279 | .97617 | 1.02996 | 1.07079 |
| 16.000 | .000 | 5.00000 | 2059.73508 | 178.14466 | 1069.19247 | .79942 | .85235 | .89237 | .97275 | 1.02567 | 1.06570 |
| 18.000 | .000 | 5.00000 | 2058.78250 | 178.06276 | 1068.70093 | .80729 | .85575 | .89309 | .97359 | 1.02206 | 1.05940 |
| 20.000 | .000 | 5.00000 | 2059.63272 | 178.13587 | 1069.13972 | .81619 | .86042 | .89642 | .97503 | 1.01932 | 1.05525 |
| 22.000 | .000 | 5.00000 | 2058.95166 | 178.07758 | 1068.78992 | .82115 | .86412 | .89812 | .97644 | 1.01941 | 1.05528 |
| 24.000 | .000 | 5.00000 | 2058.71259 | 178.05685 | 1068.65947 | .80731 | .85351 | .88881 | .95115 | 1.03266 | 1.03266 |
| GRADIENT | | .00000 | -.00907 | -.00076 | -.00455 | .00139 | .00069 | .00101 | -.00002 | -.00072 | -.00033 |

(FE7807) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 CRBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | ALPHA | BETA | PT | P | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|---------|------------|----------|-----------|--------|--------|--------|---------|---------|---------|---------|
| .000 | 5.00000 | 1487.41838 | 86.98371 | 654.65117 | .73850 | .84625 | .90552 | .94398 | 1.05173 | 1.11100 | 1.11100 |
| 2.000 | 5.00000 | 1487.53204 | 86.99042 | 654.70170 | 74636 | .85262 | .91468 | .95114 | 1.05739 | 1.11945 | 1.11945 |
| 4.000 | 5.00000 | 1487.59726 | 86.99357 | 654.72614 | 75317 | .85792 | .92218 | .95348 | 1.05923 | 1.12249 | 1.12249 |
| 6.000 | 5.00000 | 1487.58563 | 86.99354 | 654.72516 | 76078 | .86545 | .92609 | .95656 | 1.06133 | 1.12197 | 1.12197 |
| 8.000 | 5.00000 | 1487.60551 | 86.99529 | 654.73932 | 78186 | .87666 | .93395 | .97394 | 1.06874 | 1.12654 | 1.12654 |
| 10.000 | 5.00000 | 1487.63736 | 86.99750 | 654.75346 | 79644 | .88434 | .94120 | .98443 | 1.07234 | 1.12920 | 1.12920 |
| 12.000 | 5.00000 | 1487.63515 | 86.99718 | 654.75260 | 80839 | .88981 | .94665 | .99954 | 1.07359 | 1.13043 | 1.13043 |
| 14.000 | 5.00000 | 1487.64052 | 86.99771 | 654.75657 | 82024 | .89737 | .95168 | .99954 | 1.07667 | 1.13099 | 1.13099 |
| 16.000 | 5.00000 | 1487.63156 | 86.99771 | 654.75657 | 82910 | .90203 | .95507 | 1.00231 | 1.07524 | 1.12828 | 1.12828 |
| 18.000 | 5.00000 | 1487.64584 | 86.99899 | 654.76519 | 83900 | .90651 | .95809 | 1.00610 | 1.07361 | 1.12519 | 1.12519 |
| 20.000 | 5.00000 | 1487.60817 | 86.99842 | 654.74684 | 84362 | .90958 | .96146 | 1.00135 | 1.06732 | 1.11919 | 1.11919 |
| 22.000 | 5.00000 | 1487.61295 | 86.99581 | 654.74979 | 84619 | .91076 | .96265 | .99553 | 1.06110 | 1.11299 | 1.11299 |
| 24.000 | 5.00000 | 1487.57964 | 86.99521 | 654.73773 | 84982 | .91166 | .96150 | .99236 | 1.05380 | 1.10403 | 1.10403 |
| GRADIENT | .00000 | .04233 | .00249 | .01874 | .00367 | .00262 | .00417 | .00237 | .00162 | .00287 | .00287 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | F | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|---------|------------|----------|-----------|--------|---------|---------|---------|---------|---------|---------|
| .000 | 5.00000 | 1939.46461 | 51.12282 | 565.46770 | .78558 | .95880 | .95880 | 1.05367 | .98098 | 1.15420 | 1.24907 |
| 2.000 | 5.00000 | 1937.72949 | 51.07815 | 564.97363 | 79014 | .96827 | .96827 | 1.06396 | .98424 | 1.16237 | 1.25805 |
| 4.000 | 5.00000 | 1937.05000 | 51.08625 | 565.06321 | 80328 | .97404 | .97404 | 1.07326 | .99497 | 1.16573 | 1.26495 |
| 6.000 | 5.00000 | 1934.52211 | 51.09901 | 565.20436 | 81377 | .98227 | .98227 | 1.07861 | 1.00245 | 1.17095 | 1.26729 |
| 8.000 | 5.00000 | 1938.14912 | 51.09524 | 565.16261 | 84074 | .99851 | .99851 | 1.09067 | 1.02558 | 1.18333 | 1.27551 |
| 10.000 | 5.00000 | 1938.11229 | 51.09643 | 565.17573 | 85199 | 1.00517 | 1.00517 | 1.09914 | 1.04274 | 1.18592 | 1.27989 |
| 12.000 | 5.00000 | 1937.93176 | 51.09222 | 565.12921 | 88053 | 1.01251 | 1.01251 | 1.10491 | 1.05736 | 1.18934 | 1.28173 |
| 14.000 | 5.00000 | 1938.21223 | 51.10291 | 565.24744 | 89774 | 1.02289 | 1.02289 | 1.11264 | 1.07356 | 1.19431 | 1.29406 |
| 16.000 | 5.00000 | 1938.90111 | 51.12403 | 565.48102 | 90647 | 1.02546 | 1.02546 | 1.11348 | 1.07356 | 1.19255 | 1.29057 |
| 18.000 | 5.00000 | 1938.64461 | 51.12433 | 565.48442 | 91525 | 1.03088 | 1.03088 | 1.11710 | 1.07588 | 1.18952 | 1.27772 |
| 20.000 | 5.00000 | 1938.51358 | 51.11730 | 565.40661 | 92098 | 1.03088 | 1.03088 | 1.11964 | 1.07389 | 1.18379 | 1.27255 |
| 22.000 | 5.00000 | 1938.80377 | 51.12642 | 565.50747 | 91864 | 1.02678 | 1.02678 | 1.11629 | 1.06501 | 1.17315 | 1.25266 |
| 24.000 | 5.00000 | 1938.03142 | 51.11131 | 565.34034 | 91673 | 1.02426 | 1.02426 | 1.11108 | 1.06305 | 1.16358 | 1.25040 |
| GRADIENT | .00000 | -.75345 | -.00914 | -.10112 | .00443 | .00381 | .00490 | .00350 | .00350 | .00288 | .00397 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
A1LRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | BETA | PT | P | QCOMP | 042/OC | 052/OC | 062/OC | 044/OC | 054/OC | 064/OC |
|--------------|---------|------------|----------|-----------|--------|---------|---------|---------|---------|---------|
| ALPHA | 5.00000 | 2683.02945 | 35.14780 | 535.72283 | .77515 | .98553 | 1.12271 | .95681 | 1.18640 | 1.31357 |
| .000 | 5.00000 | 2682.78683 | 35.14482 | 535.67736 | .77806 | 1.00352 | 1.13728 | .96712 | 1.19257 | 1.32634 |
| 2.000 | 5.00000 | 2680.96332 | 35.12155 | 535.32263 | .79282 | 1.01550 | 1.14666 | .97887 | 1.20156 | 1.33271 |
| 4.000 | 5.00000 | 2682.66058 | 35.14306 | 535.65053 | .81131 | 1.02662 | 1.15447 | .98498 | 1.21029 | 1.33813 |
| 6.000 | 5.00000 | 2680.65055 | 35.11761 | 535.26253 | .83446 | 1.03990 | 1.16328 | 1.01541 | 1.21984 | 1.34628 |
| 8.000 | 5.00000 | 2682.31409 | 35.13948 | 535.58063 | .86864 | 1.05217 | 1.17557 | 1.04501 | 1.22864 | 1.35194 |
| 10.000 | 5.00000 | 2680.79222 | 35.11946 | 535.29087 | .88952 | 1.06012 | 1.18710 | 1.06144 | 1.23203 | 1.35902 |
| 12.000 | 5.00000 | 2681.94269 | 35.13391 | 535.51109 | .90602 | 1.06906 | 1.19295 | 1.07373 | 1.23577 | 1.36066 |
| 14.000 | 5.00000 | 2660.82974 | 35.11878 | 535.28040 | .91985 | 1.07670 | 1.20060 | 1.08029 | 1.23714 | 1.36104 |
| 16.000 | 5.00000 | 2680.17957 | 35.11156 | 535.17036 | .92480 | 1.07368 | 1.19967 | 1.07957 | 1.23845 | 1.35444 |
| 18.000 | 5.00000 | 2680.18320 | 35.13710 | 535.55972 | .92915 | 1.07464 | 1.19715 | 1.07935 | 1.22484 | 1.34736 |
| 20.000 | 5.00000 | 2692.60205 | 35.11565 | 535.23274 | .92369 | 1.05785 | 1.18984 | 1.05775 | 1.21191 | 1.33290 |
| 22.000 | 5.00000 | 2680.41901 | 35.11479 | 535.21957 | .91460 | 1.05617 | 1.17150 | 1.05167 | 1.19334 | 1.30857 |
| 24.000 | 5.00000 | 2680.41901 | 35.11479 | 535.21957 | .91460 | 1.05617 | 1.17150 | 1.05167 | 1.19334 | 1.30857 |
| GRADIENT | .00000 | -.51654 | -.00656 | -.10005 | .00442 | .00498 | .00598 | .00321 | .00379 | .00478 |

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(FE7C03) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|-------|----------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.200 | .000 | -5.00000 | 2008.91339 | 828.82202 | 1166.56822 | -.01841 | -.01971 | -.01951 | -.01583 | -.01695 | -.01678 |
| | .000 | -5.00000 | 2009.58676 | 828.57557 | 1166.22134 | -.01582 | -.01637 | -.01586 | -.01389 | -.01433 | -.01388 |
| | 2.000 | -5.00000 | 2012.39209 | 829.41618 | 1167.40450 | -.01510 | -.01467 | -.01591 | -.01351 | -.01340 | -.01414 |
| | 4.000 | -5.00000 | 2007.39058 | 828.01813 | 1165.43674 | -.01597 | -.01638 | -.01700 | -.01420 | -.01510 | -.01512 |
| | 6.000 | -5.00000 | 2005.18105 | 827.76498 | 1165.08044 | -.01692 | -.01698 | -.02085 | -.01455 | -.01720 | -.01806 |
| | 8.000 | -5.00000 | 1993.63934 | 826.39300 | 1163.13529 | -.01677 | -.02133 | -.02229 | -.01449 | -.01815 | -.01924 |
| | 10.000 | -5.00000 | 2001.46516 | 826.74883 | 1163.65021 | -.01927 | -.02478 | -.02341 | -.01684 | -.02165 | -.02045 |
| | 12.000 | -5.00000 | 2001.08822 | 826.64798 | 1163.50826 | -.02229 | -.02834 | -.02568 | -.01950 | -.02517 | -.02257 |
| | 14.000 | -5.00000 | 1999.43224 | 826.30900 | 1163.03114 | -.02213 | -.02834 | -.02672 | -.01960 | -.02509 | -.02366 |
| | 16.000 | -5.00000 | 2003.10529 | 827.20448 | 1164.29153 | -.02389 | -.02938 | -.02855 | -.02141 | -.02585 | -.02558 |
| | 18.000 | -5.00000 | 2000.66002 | 826.62295 | 1163.47430 | -.03083 | -.03515 | -.02855 | -.02785 | -.03174 | -.02952 |
| | 20.000 | -5.00000 | 1936.12425 | 825.65847 | 1162.11552 | -.03768 | -.03934 | -.03269 | -.03435 | -.03614 | -.03327 |
| | 22.000 | -5.00000 | 1995.54181 | 825.41649 | 1161.77493 | -.00070 | -.00116 | -.03649 | -.00049 | -.03614 | -.03327 |
| | 24.000 | -5.00000 | .86967 | .14854 | .20908 | | | .00090 | | .00089 | .00055 |
| | GRADIENT | | | | | | | | | | |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|-------|----------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | -5.00000 | 1578.51139 | 400.01855 | 1042.32884 | -.22676 | -.21083 | -.19490 | -.18498 | -.17241 | -.15977 |
| | 2.000 | -5.00000 | 1578.59117 | 400.18729 | 1042.76894 | -.22413 | -.20876 | -.19270 | -.18462 | -.17239 | -.15945 |
| | 4.000 | -5.00000 | 1577.32025 | 399.78399 | 1041.71767 | -.21714 | -.20256 | -.18730 | -.18008 | -.16833 | -.15598 |
| | 6.000 | -5.00000 | 1577.34309 | 399.79176 | 1041.73790 | -.21572 | -.20088 | -.18411 | -.18028 | -.16822 | -.15453 |
| | 8.000 | -5.00000 | 1578.35884 | 400.03287 | 1042.36615 | -.22576 | -.20411 | -.18580 | -.19287 | -.17214 | -.15707 |
| | 10.000 | -5.00000 | 1575.77289 | 399.39394 | 1040.70128 | -.22765 | -.19999 | -.18060 | -.19287 | -.17001 | -.15390 |
| | 12.000 | -5.00000 | 1575.64384 | 399.36981 | 1040.63841 | -.20467 | -.19150 | -.17743 | -.17534 | -.16432 | -.15422 |
| | 14.000 | -5.00000 | 1575.95380 | 399.44687 | 1040.83922 | -.20817 | -.19207 | -.17729 | -.18023 | -.16659 | -.15422 |
| | 16.000 | -5.00000 | 1575.97449 | 399.45256 | 1040.85405 | -.22138 | -.19950 | -.18214 | -.19223 | -.17365 | -.16228 |
| | 18.000 | -5.00000 | 1576.27609 | 399.52647 | 1041.04663 | -.22474 | -.20152 | -.18533 | -.19588 | -.17616 | -.16560 |
| | 20.000 | -5.00000 | 1575.91870 | 399.41241 | 1040.74942 | -.23226 | -.20702 | -.18973 | -.20284 | -.18155 | -.17519 |
| | 22.000 | -5.00000 | 1575.80944 | 399.41526 | 1040.75685 | -.24662 | -.21897 | -.20032 | -.21464 | -.19113 | -.18786 |
| | 24.000 | -5.00000 | 1576.42549 | 399.57412 | 1041.17079 | -.26066 | -.23260 | -.21453 | -.22717 | -.20330 | -.18786 |
| | GRADIENT | | | | | -.00240 | -.00207 | -.00190 | -.00123 | -.00102 | -.00095 |

(FE7C03) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | | | | | | | | | | |
| .000 | -5.00000 | 1643.42418 | 309.79275 | 1066.72121 | -.46280 | -.41780 | -.37209 | -.37413 | -.33976 | -.30442 |
| 2.000 | -5.00000 | 1650.93587 | 310.08348 | 1067.72229 | -.44834 | -.40485 | -.36499 | -.36583 | -.33218 | -.30101 |
| 4.000 | -5.00000 | 1650.24094 | 309.94633 | 1067.25003 | -.43889 | -.39676 | -.35703 | -.36025 | -.32738 | -.29607 |
| 6.000 | -5.00000 | 1649.91432 | 309.89394 | 1067.06963 | -.42646 | -.38956 | -.35113 | -.35206 | -.32306 | -.29257 |
| 8.000 | -5.00000 | 1650.82304 | 310.06269 | 1067.65071 | -.43381 | -.39558 | -.34694 | -.36472 | -.32197 | -.29104 |
| 10.000 | -5.00000 | 1650.44762 | 309.98747 | 1067.39171 | -.40828 | -.36901 | -.34206 | -.36208 | -.31656 | -.28656 |
| 12.000 | -5.00000 | 1651.41377 | 310.17471 | 1068.03642 | -.40228 | -.36980 | -.33867 | -.34338 | -.31173 | -.28709 |
| 14.000 | -5.00000 | 1651.02855 | 310.09578 | 1067.76807 | -.41907 | -.37164 | -.33995 | -.34214 | -.31415 | -.28746 |
| 16.000 | -5.00000 | 1650.14075 | 309.92979 | 1067.19304 | -.43457 | -.38494 | -.35225 | -.36878 | -.32662 | -.29062 |
| 18.000 | -5.00000 | 1650.64254 | 310.06318 | 1067.65240 | -.44806 | -.39633 | -.36289 | -.38032 | -.33824 | -.31078 |
| 20.000 | -5.00000 | 1651.58724 | 310.16493 | 1068.00276 | -.45364 | -.40435 | -.37045 | -.38818 | -.34771 | -.31964 |
| 22.000 | -5.00000 | 1651.57825 | 310.20011 | 1068.12389 | -.46445 | -.41933 | -.38469 | -.39847 | -.36175 | -.33251 |
| 24.000 | -5.00000 | 1651.58163 | 310.20077 | 1068.12617 | -.46445 | -.41933 | -.38469 | -.39847 | -.36175 | -.33251 |
| GRADIENT | .00000 | .23419 | .03840 | .13221 | .00598 | .00526 | .00376 | .00347 | .00309 | .00209 |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | | | | | | | | | | |
| .000 | -5.00000 | 1847.06216 | 235.97826 | 1095.04305 | -.82616 | -.71762 | -.63374 | -.67323 | -.58128 | -.52570 |
| 2.000 | -5.00000 | 1848.00623 | 236.10478 | 1095.63014 | -.80149 | -.70148 | -.62183 | -.65820 | -.58184 | -.51993 |
| 4.000 | -5.00000 | 1847.42177 | 236.02850 | 1095.2518 | -.78373 | -.68204 | -.60722 | -.64852 | -.56998 | -.51119 |
| 6.000 | -5.00000 | 1846.95721 | 235.95262 | 1094.97044 | -.76195 | -.66845 | -.59932 | -.63413 | -.56131 | -.50662 |
| 8.000 | -5.00000 | 1846.99805 | 235.96757 | 1094.99344 | -.75377 | -.65583 | -.58648 | -.63172 | -.55465 | -.49922 |
| 10.000 | -5.00000 | 1846.48346 | 235.89915 | 1094.67596 | -.74912 | -.64264 | -.58479 | -.61118 | -.54670 | -.50012 |
| 12.000 | -5.00000 | 1846.51515 | 235.90250 | 1094.69148 | -.72444 | -.63962 | -.58479 | -.61242 | -.54497 | -.49587 |
| 14.000 | -5.00000 | 1846.62762 | 235.91658 | 1094.74682 | -.71453 | -.64027 | -.58191 | -.60532 | -.54602 | -.49887 |
| 16.000 | -5.00000 | 1846.02321 | 235.83774 | 1094.34336 | -.72546 | -.64096 | -.58900 | -.61242 | -.54602 | -.49887 |
| 18.000 | -5.00000 | 1846.35266 | 235.87904 | 1094.58281 | -.71453 | -.64027 | -.58191 | -.60532 | -.54602 | -.49887 |
| 20.000 | -5.00000 | 1846.85618 | 235.94551 | 1094.89108 | -.75445 | -.65431 | -.60891 | -.61858 | -.55051 | -.50815 |
| 22.000 | -5.00000 | 1847.20576 | 235.92882 | 1095.03203 | -.74912 | -.65431 | -.60891 | -.61858 | -.55051 | -.50815 |
| 24.000 | -5.00000 | 1846.90113 | 235.83439 | 1094.37541 | -.76466 | -.68405 | -.62344 | -.66484 | -.59272 | -.54498 |
| GRADIENT | .00000 | .08990 | .01256 | .05629 | .01061 | .00690 | .00663 | .00618 | .00533 | .00388 |

(FE7C03) (02 AUG 76)

TABULATED DATA - CA161 (ARC 11-97-87-094)
ARC 11-97-87-094 CA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 SDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | BETA | PT | P | OCOMP | DPT042 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|----------|------------|-----------|------------|----------|----------|----------|----------|----------|
| ALPHA | | | | | | | | | |
| .000 | -5.00000 | 2051.52133 | 177.43511 | 1064.93391 | -1.31498 | -1.10440 | -1.08044 | -1.25119 | -1.81734 |
| 2.000 | -5.00000 | 2050.73444 | 177.36765 | 1064.52908 | -1.29240 | -1.08642 | -1.07139 | -1.91470 | -1.80754 |
| 4.000 | -5.00000 | 2050.30634 | 177.38244 | 1064.61781 | -1.26136 | -1.07027 | -1.05169 | -1.90508 | -1.80229 |
| 6.000 | -5.00000 | 2050.73029 | 177.36738 | 1064.52737 | -1.22574 | -1.05578 | -1.02783 | -1.89336 | -1.79846 |
| 8.000 | -5.00000 | 2051.17938 | 177.40587 | 1064.75842 | -1.19773 | -1.03667 | -1.00977 | -1.88415 | -1.79359 |
| 10.000 | -5.00000 | 2051.78479 | 177.45775 | 1065.06981 | -1.17089 | -1.01639 | -99995 | -1.86889 | -1.78019 |
| 12.000 | -5.00000 | 2052.43539 | 177.51383 | 1065.40637 | -1.14235 | -99892 | -97503 | -1.85855 | -1.76377 |
| 14.000 | -5.00000 | 2054.13220 | 177.65454 | 1066.25092 | -1.12960 | -99505 | -96528 | -1.85228 | -1.76406 |
| 16.000 | -5.00000 | 2055.24664 | 177.75452 | 1066.85094 | -1.13971 | -99568 | -97785 | -1.86232 | -1.80029 |
| 18.000 | -5.00000 | 2055.90338 | 177.81194 | 1067.19557 | -1.15785 | -99927 | -1.00231 | -1.87849 | -1.81556 |
| 20.000 | -5.00000 | 2055.49188 | 177.76571 | 1066.98186 | -1.16404 | -1.02637 | -1.00428 | -1.89370 | -1.83628 |
| 22.000 | -5.00000 | 2055.36655 | 177.76571 | 1066.91809 | -1.19009 | -1.04335 | -1.03367 | -1.91464 | -1.84043 |
| 24.000 | -5.00000 | 2055.56168 | 177.66968 | 1067.54214 | -1.19050 | -1.04755 | -1.03611 | -1.91957 | -1.84043 |
| GRADIENT | .00000 | -.15373 | -.01317 | -.07902 | .01340 | .00853 | .00808 | .00503 | .00376 |

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | BETA | PT | P | OCOMP | DPT042 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|----------|------------|----------|-----------|----------|----------|----------|----------|----------|
| ALPHA | | | | | | | | | |
| .000 | -5.00000 | 1498.56390 | 87.64465 | 659.62552 | -2.08263 | -1.73240 | -1.72453 | -1.46310 | -1.28790 |
| 2.000 | -5.00000 | 1497.87276 | 87.60339 | 659.31491 | -2.04587 | -1.70073 | -1.70025 | -1.44101 | -1.25993 |
| 4.000 | -5.00000 | 1497.09436 | 87.55775 | 658.97150 | -1.98631 | -1.65677 | -1.65998 | -1.41014 | -1.23999 |
| 6.000 | -5.00000 | 1497.75047 | 87.59612 | 659.26024 | -1.92426 | -1.61859 | -1.61877 | -1.38461 | -1.22253 |
| 8.000 | -5.00000 | 1497.84230 | 87.60144 | 659.30032 | -1.85887 | -1.57776 | -1.57250 | -1.35523 | -1.21152 |
| 10.000 | -5.00000 | 1497.61511 | 87.59991 | 659.28880 | -1.80450 | -1.54789 | -1.53535 | -1.33524 | -1.19945 |
| 12.000 | -5.00000 | 1497.81754 | 87.59988 | 659.27169 | -1.78326 | -1.52621 | -1.51987 | -1.32590 | -1.19592 |
| 14.000 | -5.00000 | 1497.78599 | 87.59754 | 659.26370 | -1.76342 | -1.52221 | -1.50662 | -1.31744 | -1.19711 |
| 16.000 | -5.00000 | 1497.77357 | 87.59656 | 659.26300 | -1.75505 | -1.52669 | -1.50443 | -1.32674 | -1.20314 |
| 18.000 | -5.00000 | 1497.77548 | 87.59782 | 659.27309 | -1.76184 | -1.53635 | -1.51658 | -1.33176 | -1.21459 |
| 20.000 | -5.00000 | 1497.79367 | 87.59782 | 659.27309 | -1.78247 | -1.55601 | -1.53928 | -1.35193 | -1.23226 |
| 22.000 | -5.00000 | 1497.81293 | 87.59903 | 659.28218 | -1.81448 | -1.58665 | -1.57193 | -1.38429 | -1.26628 |
| 24.000 | -5.00000 | 1497.82393 | 87.59926 | 659.28389 | -1.86857 | -1.64149 | -1.61949 | -1.43765 | -1.30747 |
| GRADIENT | .00000 | -.36739 | -.02172 | -.16350 | .02408 | .01691 | .01614 | .01324 | .01139 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEE = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|----------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| ALPHA .000 | -5.00000 | 1935.56339 | 51.10074 | 565.22348 | -4.59784 | -3.63310 | -3.05290 | -3.74026 | -3.05362 | -2.61826 |
| 2.000 | -5.00000 | 1935.15036 | 51.09178 | 565.12438 | -4.51293 | -3.57737 | -2.99590 | -3.68557 | -3.01534 | -2.57665 |
| 4.000 | -5.00000 | 1936.07675 | 51.11307 | 565.36988 | -4.35558 | -3.46750 | -2.93451 | -3.58726 | -2.94189 | -2.53355 |
| 6.000 | -5.00000 | 1936.50783 | 51.12482 | 565.48977 | -4.19931 | -2.37602 | -2.87732 | -3.47926 | -2.87798 | -2.49318 |
| 8.000 | -5.00000 | 1936.47981 | 51.12357 | 565.47600 | -4.01669 | -3.28571 | -2.84225 | -3.35505 | -2.81197 | -2.46293 |
| 10.000 | -5.00000 | 1936.30377 | 51.12127 | 565.45016 | -3.87193 | -3.19511 | -2.79459 | -3.26040 | -2.75391 | -2.43357 |
| 12.000 | -5.00000 | 1936.05462 | 51.11145 | 565.34151 | -3.78391 | -3.14014 | -2.77250 | -3.20732 | -2.72587 | -2.42217 |
| 14.000 | -5.00000 | 1935.75789 | 51.09733 | 565.18574 | -3.74130 | -3.11218 | -2.76223 | -3.17756 | -2.71892 | -2.41842 |
| 16.000 | -5.00000 | 1935.54229 | 51.08156 | 565.01133 | -3.69549 | -3.10336 | -2.75660 | -3.14926 | -2.70939 | -2.41478 |
| 18.000 | -5.00000 | 1935.29300 | 51.07934 | 564.96673 | -3.67048 | -3.15146 | -2.79880 | -3.19747 | -2.75899 | -2.43275 |
| 20.000 | -5.00000 | 1934.35158 | 51.05967 | 564.94459 | -3.71734 | -3.21562 | -2.85857 | -3.25274 | -2.81626 | -2.53183 |
| 22.000 | -5.00000 | 1934.81860 | 51.07553 | 564.34459 | -3.77189 | -3.21562 | -2.85857 | -3.25274 | -2.81626 | -2.53183 |
| 24.000 | -5.00000 | 1934.82580 | 51.04761 | 534.63582 | -3.85752 | -3.31354 | -2.94914 | -3.32477 | -2.90078 | -2.60923 |
| GRADIENT | .00000 | .12834 | .00308 | .03410 | -.06057 | .04140 | .02960 | .03825 | .02793 | .02068 |

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|----------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| ALPHA .000 | -5.00000 | 2547.37308 | 33.36888 | 508.60840 | -8.55895 | -6.50008 | -5.31905 | -6.78289 | -5.39226 | -4.53420 |
| 2.000 | -5.00000 | 2547.81790 | 33.37489 | 508.70000 | -8.37744 | -6.34809 | -5.19891 | -6.67400 | -5.29007 | -4.44837 |
| 4.000 | -5.00000 | 2546.94496 | 33.36394 | 508.53317 | -8.07942 | -6.18564 | -5.07510 | -6.49322 | -5.16185 | -4.36210 |
| 6.000 | -5.00000 | 2547.50006 | 33.37128 | 508.64510 | -7.78162 | -6.00316 | -5.01615 | -6.30963 | -5.06149 | -4.32492 |
| 8.000 | -5.00000 | 2547.17203 | 33.36708 | 508.58098 | -7.32309 | -5.77824 | -4.90888 | -6.01253 | -4.90716 | -4.25105 |
| 10.000 | -5.00000 | 2551.36157 | 33.42099 | 509.41276 | -7.07577 | -5.66530 | -4.83652 | -5.85198 | -4.83887 | -4.20698 |
| 12.000 | -5.00000 | 2556.54724 | 33.47640 | 510.24735 | -6.86100 | -5.56595 | -4.78592 | -5.72071 | -4.77154 | -4.17350 |
| 14.000 | -5.00000 | 2558.82321 | 33.51929 | 510.89731 | -6.68999 | -5.47038 | -4.73192 | -5.62314 | -4.71942 | -4.14732 |
| 16.000 | -5.00000 | 2563.66443 | 33.58282 | 511.87032 | -6.50500 | -5.40938 | -4.69573 | -5.53958 | -4.69405 | -4.13567 |
| 18.000 | -5.00000 | 2567.71115 | 33.63562 | 512.67409 | -6.57436 | -5.41489 | -4.71531 | -5.59762 | -4.71770 | -4.16670 |
| 20.000 | -5.00000 | 2572.38371 | 33.69739 | 513.51562 | -6.55372 | -5.44313 | -4.73461 | -5.59726 | -4.75069 | -4.20815 |
| 22.000 | -5.00000 | 2578.11011 | 33.77192 | 514.49229 | -6.70330 | -5.56715 | -4.88309 | -5.73461 | -4.86305 | -4.32245 |
| 24.000 | -5.00000 | 2578.93777 | 33.78332 | 514.92529 | -6.85372 | -5.73558 | -5.03086 | -5.85266 | -5.00185 | -4.44581 |
| GRADIENT | .00000 | -.11079 | -.00123 | -.01693 | .11938 | .08111 | .06099 | .07242 | .05760 | .04303 |

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(FE7C04) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ATLIRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO
LPEF = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

FN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|-------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | 0.000 | -2.00000 | 1574.43616 | 398.83030 | 1039.23260 | -2.1609 | -1.9802 | -1.8004 | -1.6925 | -1.5560 | -1.4193 |
| 2.000 | 0.000 | -2.00000 | 1573.92516 | 398.70513 | 1038.90645 | -2.0947 | -1.9234 | -1.7489 | -1.6571 | -1.5260 | -1.3919 |
| 4.000 | 0.000 | -2.00000 | 1573.05897 | 398.48754 | 1038.33949 | -2.0010 | -1.8278 | -1.6508 | -1.5799 | -1.4638 | -1.3572 |
| 6.000 | 0.000 | -2.00000 | 1573.57761 | 398.62070 | 1039.68616 | -1.9531 | -1.7913 | -1.6489 | -1.5752 | -1.4465 | -1.3365 |
| 8.000 | 0.000 | -2.00000 | 1574.51890 | 398.81203 | 1039.18510 | -1.8876 | -1.7785 | -1.6409 | -1.5309 | -1.4450 | -1.3286 |
| 10.000 | 0.000 | -2.00000 | 1574.64066 | 398.88465 | 1039.37476 | -2.0018 | -1.7911 | -1.6171 | -1.5351 | -1.4577 | -1.3426 |
| 12.000 | 0.000 | -2.00000 | 1574.59084 | 398.93705 | 1039.51079 | -1.8290 | -1.7966 | -1.6149 | -1.5554 | -1.4859 | -1.3726 |
| 14.000 | 0.000 | -2.00000 | 1574.59084 | 398.16734 | 1039.34998 | -1.8881 | -1.7553 | -1.5936 | -1.5333 | -1.4857 | -1.3648 |
| 16.000 | 0.000 | -2.00000 | 1575.31898 | 399.06065 | 1039.83284 | -1.8881 | -1.7553 | -1.6346 | -1.5943 | -1.4857 | -1.3648 |
| 18.000 | 0.000 | -2.00000 | 1575.34929 | 399.06569 | 1039.84596 | -2.0786 | -1.8046 | -1.6823 | -1.6932 | -1.5368 | -1.4431 |
| 20.000 | 0.000 | -2.00000 | 1574.16409 | 398.76549 | 1039.06374 | -2.1875 | -1.8548 | -1.6854 | -1.7702 | -1.5840 | -1.5112 |
| 22.000 | 0.000 | -2.00000 | 1574.15891 | 398.76766 | 1039.06938 | -2.2540 | -1.9308 | -1.7594 | -1.6693 | -1.5550 | -1.5019 |
| 24.000 | 0.000 | -2.00000 | 1574.84904 | 398.94400 | 1039.52890 | -2.2540 | -2.0191 | -1.8456 | -1.7261 | -1.5919 | -1.5019 |
| GRADIENT | | | | | | .00400 | .00381 | .00274 | .00237 | .00231 | .00155 |

FN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|-------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | 0.000 | -2.00000 | 1650.91153 | 310.07685 | 1067.69946 | -4.1126 | -3.6522 | -3.2445 | -3.2483 | -2.9046 | -2.5982 |
| 2.000 | 0.000 | -2.00000 | 1652.84775 | 310.44413 | 1068.96416 | -4.0052 | -3.5544 | -3.1700 | -3.1921 | -2.8514 | -2.5574 |
| 4.000 | 0.000 | -2.00000 | 1653.85585 | 310.63168 | 1069.60992 | -3.9318 | -3.5213 | -3.1304 | -3.1424 | -2.8310 | -2.5311 |
| 6.000 | 0.000 | -2.00000 | 1654.35929 | 310.72112 | 1069.82824 | -3.8370 | -3.4579 | -3.0937 | -3.0817 | -2.7923 | -2.5113 |
| 8.000 | 0.000 | -2.00000 | 1653.79941 | 310.62094 | 1069.57295 | -3.7505 | -3.3872 | -3.0505 | -3.0312 | -2.7515 | -2.4698 |
| 10.000 | 0.000 | -2.00000 | 1654.31114 | 310.72391 | 1069.92749 | -3.8225 | -3.3310 | -2.9757 | -3.1077 | -2.7262 | -2.4472 |
| 12.000 | 0.000 | -2.00000 | 1655.30927 | 310.90954 | 1070.56705 | -3.8080 | -3.2953 | -2.9552 | -3.1279 | -2.7249 | -2.4545 |
| 14.000 | 0.000 | -2.00000 | 1655.65390 | 310.97398 | 1070.78859 | -3.5264 | -3.2400 | -2.9622 | -2.9170 | -2.6900 | -2.4561 |
| 16.000 | 0.000 | -2.00000 | 1654.93356 | 310.83346 | 1070.32539 | -3.5384 | -3.2571 | -2.9657 | -2.9405 | -2.7163 | -2.4823 |
| 18.000 | 0.000 | -2.00000 | 1655.58514 | 311.04767 | 1070.76588 | -3.7275 | -3.3073 | -3.0303 | -3.1095 | -2.7732 | -2.5495 |
| 20.000 | 0.000 | -2.00000 | 1657.05319 | 311.24283 | 1071.71434 | -3.8077 | -3.3516 | -3.0656 | -3.2071 | -2.8377 | -2.6041 |
| 22.000 | 0.000 | -2.00000 | 1657.69335 | 311.33872 | 1072.11337 | -3.8268 | -3.4036 | -3.0980 | -3.2576 | -2.9105 | -2.6561 |
| 24.000 | 0.000 | -2.00000 | 1657.51363 | 311.33756 | 1072.00642 | -3.8917 | -3.4882 | -3.1843 | -3.3253 | -2.9932 | -2.7411 |
| GRADIENT | | | | | | .00452 | .00327 | .00265 | .00265 | .00184 | .00163 |

(FETC04) (02 AUG 75)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

TABLATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

REF = 260.000 SQ.FT. XMRP = 1076.6900 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
ZREF = 336.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | CCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|------------|-----------|------------|------------|--------|--------|--------|--------|--------|--------|
| 2.0000 | 1845.93443 | 235.90358 | 1094.69549 | 1094.69549 | -74273 | -64507 | -56326 | -59733 | -92027 | -45870 |
| 2.0000 | 1846.41615 | 235.83478 | 1094.37723 | 1094.37723 | -73344 | -62935 | -55309 | -58862 | -51114 | -45320 |
| 2.0000 | 1846.47842 | 235.84348 | 1094.41763 | 1094.41763 | -71559 | -62000 | -54266 | -58321 | -50806 | -44855 |
| 2.0000 | 1847.01838 | 235.81540 | 1094.75133 | 1094.75133 | -69451 | -60024 | -53229 | -56680 | -49487 | -44214 |
| 2.0000 | 1846.92838 | 235.81259 | 1094.73875 | 1094.73875 | -67705 | -59077 | -52785 | -55692 | -48388 | -44115 |
| 2.0000 | 1846.95099 | 235.81120 | 1094.73189 | 1094.73189 | -66679 | -57878 | -52007 | -55235 | -48363 | -43742 |
| 2.0000 | 1846.64926 | 235.86977 | 1094.53934 | 1094.53934 | -67167 | -57479 | -51901 | -55730 | -48230 | -43720 |
| 2.0000 | 1846.59161 | 235.85356 | 1094.49259 | 1094.49259 | -64550 | -57470 | -52054 | -53974 | -46329 | -44374 |
| 2.0000 | 1847.17949 | 235.84132 | 1094.87161 | 1094.87161 | -64550 | -58113 | -52861 | -54375 | -46229 | -45008 |
| 2.0000 | 1846.84377 | 235.89249 | 1094.66362 | 1094.66362 | -66039 | -58275 | -53479 | -55905 | -48599 | -45833 |
| 2.0000 | 1846.81461 | 235.88847 | 1094.62637 | 1094.62637 | -66743 | -58659 | -53661 | -56775 | -49263 | -46169 |
| 2.0000 | 1847.35541 | 235.95847 | 1094.95123 | 1094.95123 | -67564 | -59639 | -54535 | -57813 | -51506 | -47270 |
| 2.0000 | 1846.02296 | 235.78710 | 1094.15599 | 1094.15599 | -67267 | -59709 | -54821 | -58247 | -52047 | -47975 |
| 2.0000 | -1.1339 | -0.532 | -0.06971 | -0.06971 | .00853 | .00627 | .00515 | .00428 | .00305 | .00254 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | BETA | PT | F | CCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|-----------|-----------|------------|------------|----------|--------|--------|--------|--------|--------|
| 2.0000 | 178.19234 | 178.19234 | 1069.48225 | 1069.48225 | -1.16731 | -96373 | -84100 | -96189 | -80748 | -71186 |
| 2.0000 | 178.15426 | 178.15426 | 1069.31013 | 1069.31013 | -1.15291 | -95184 | -82920 | -95554 | -80172 | -70451 |
| 2.0000 | 178.12785 | 178.12785 | 1069.09161 | 1069.09161 | -1.13602 | -93314 | -82808 | -94607 | -80530 | -70655 |
| 2.0000 | 178.16692 | 178.16692 | 1069.32610 | 1069.32610 | -1.10804 | -93805 | -82324 | -92455 | -79330 | -70264 |
| 2.0000 | 178.19534 | 178.19534 | 1069.49667 | 1069.49667 | -1.08277 | -91875 | -81609 | -90790 | -78929 | -69873 |
| 2.0000 | 178.19548 | 178.19548 | 1069.44347 | 1069.44347 | -1.04343 | -89747 | -79660 | -89030 | -76571 | -68526 |
| 2.0000 | 178.19673 | 178.19673 | 1069.44377 | 1069.44377 | -1.02016 | -89426 | -80109 | -87166 | -74455 | -66331 |
| 2.0000 | 178.19613 | 178.19613 | 1069.56143 | 1069.56143 | -1.0345 | -88465 | -80054 | -85939 | -73459 | -65125 |
| 2.0000 | 178.23577 | 178.23577 | 1069.60732 | 1069.60732 | -1.00405 | -86318 | -80165 | -85849 | -73176 | -63959 |
| 2.0000 | 178.19644 | 178.19644 | 1069.33524 | 1069.33524 | -1.00879 | -86498 | -80657 | -86670 | -72993 | -63293 |
| 2.0000 | 178.19316 | 178.19316 | 1069.54353 | 1069.54353 | -1.02719 | -89909 | -82227 | -88830 | -78422 | -69347 |
| 2.0000 | 178.17854 | 178.17854 | 1069.39586 | 1069.39586 | -1.02446 | -90150 | -82449 | -89953 | -78909 | -69534 |
| 2.0000 | 178.19929 | 178.19929 | 1069.34025 | 1069.34025 | -1.10975 | -97793 | -89485 | -96972 | -86133 | -73704 |
| 2.0000 | -0.1627 | -0.1627 | -0.09757 | -0.09757 | .00782 | .00255 | .00323 | .00395 | .00265 | .00130 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2593.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILLRON = .000 BOFLAP = -7.170

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------|-------|----------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 2.500 | .000 | -2.00000 | 1497.77222 | 87.59769 | 559.21209 | -1.88814 | -1.52525 | -1.31450 | -1.52363 | -1.26139 | -1.10302 |
| 2.000 | .000 | -2.00000 | 1497.76450 | 87.59732 | 559.26928 | -1.87140 | -1.50187 | -1.29980 | -1.51564 | -1.24686 | -1.09411 |
| 4.000 | .000 | -2.00000 | 1497.6714 | 87.59741 | 559.27001 | -1.80826 | -1.47604 | -1.26954 | -1.47612 | -1.23168 | -1.07420 |
| 6.000 | .000 | -2.00000 | 1497.74325 | 87.59619 | 559.26081 | -1.75577 | -1.44091 | -1.25102 | -1.44300 | -1.16685 | -1.05750 |
| 8.000 | .000 | -2.00000 | 1497.75372 | 87.59632 | 559.26557 | -1.69468 | -1.41204 | -1.24129 | -1.419 | -1.16268 | -1.05409 |
| 10.000 | .000 | -2.00000 | 1497.67140 | 87.59757 | 559.22576 | -1.65757 | -1.39375 | -1.23302 | -1.37898 | -1.15390 | -1.05499 |
| 15.000 | .000 | -2.00000 | 1498.01534 | 87.61195 | 559.37941 | -1.61956 | -1.37467 | -1.22344 | -1.35558 | -1.16841 | -1.04991 |
| 20.000 | .000 | -2.00000 | 1498.68499 | 87.61137 | 557.89593 | -1.59804 | -1.36074 | -1.21995 | -1.35994 | -1.16091 | -1.04991 |
| 25.000 | .000 | -2.00000 | 1498.60835 | 87.61100 | 557.86705 | -1.56772 | -1.34261 | -1.21869 | -1.33044 | -1.15901 | -1.05300 |
| 30.000 | .000 | -2.00000 | 1498.09078 | 87.61312 | 558.07867 | -1.50454 | -1.35838 | -1.22900 | -1.30444 | -1.16919 | -1.06597 |
| 35.000 | .000 | -2.00000 | 1498.55333 | 87.63938 | 557.70778 | -1.57036 | -1.37071 | -1.24554 | -1.34254 | -1.16521 | -1.06473 |
| 40.000 | .000 | -2.00000 | 1498.70457 | 87.64653 | 557.90915 | -1.58845 | -1.39509 | -1.26695 | -1.36414 | -1.17216 | -1.06551 |
| 45.000 | .000 | -2.00000 | 1498.54532 | 87.63033 | 558.01747 | -1.63194 | -1.41963 | -1.28423 | -1.38548 | -1.23953 | -1.12933 |
| 50.000 | .000 | -2.00000 | 1498.0127 | 87.60000 | 558.00052 | -1.69397 | -1.41230 | -1.01124 | -1.41168 | -1.06743 | -1.00720 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------|-------|----------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.000 | .000 | -2.00000 | 1942.79345 | 51.29598 | 567.38300 | -3.98442 | -3.06935 | -2.57459 | -3.20191 | -2.58028 | -2.19073 |
| 2.000 | .000 | -2.00000 | 1939.95528 | 51.22303 | 566.57605 | -3.92733 | -3.02661 | -2.54135 | -3.11689 | -2.52945 | -2.16690 |
| 4.000 | .000 | -2.00000 | 1937.26540 | 51.15163 | 565.78629 | -3.83853 | -2.97850 | -2.51718 | -3.11458 | -2.50058 | -2.15334 |
| 6.000 | .000 | -2.00000 | 1933.01018 | 51.02005 | 564.33104 | -3.63739 | -2.89982 | -2.47469 | -3.01861 | -2.44553 | -2.12177 |
| 8.000 | .000 | -2.00000 | 1931.75623 | 51.01246 | 564.24371 | -3.52108 | -2.82420 | -2.43709 | -2.90915 | -2.39760 | -2.10112 |
| 10.000 | .000 | -2.00000 | 1932.19310 | 51.02143 | 564.34621 | -3.41821 | -2.77723 | -2.40873 | -2.84443 | -2.36873 | -2.08439 |
| 15.000 | .000 | -2.00000 | 1932.61784 | 51.02795 | 564.41837 | -3.34292 | -2.75344 | -2.40145 | -2.80239 | -2.36032 | -2.08288 |
| 20.000 | .000 | -2.00000 | 1931.30728 | 51.02634 | 564.34621 | -3.24750 | -2.70419 | -2.37643 | -2.73777 | -2.34643 | -2.07036 |
| 25.000 | .000 | -2.00000 | 1932.10713 | 51.00635 | 564.17945 | -3.17949 | -2.68480 | -2.36889 | -2.69533 | -2.33633 | -2.06566 |
| 30.000 | .000 | -2.00000 | 1931.45338 | 51.00952 | 564.00479 | -3.11645 | -2.66286 | -2.36815 | -2.68960 | -2.33103 | -2.06285 |
| 35.000 | .000 | -2.00000 | 1931.62338 | 51.00978 | 564.00479 | -3.13584 | -2.67261 | -2.33419 | -2.69355 | -2.33103 | -2.06285 |
| 40.000 | .000 | -2.00000 | 1931.01345 | 51.00597 | 564.09523 | -3.13069 | -2.67261 | -2.44705 | -2.74663 | -2.33103 | -2.06285 |
| 45.000 | .000 | -2.00000 | 1931.22112 | 51.00929 | 564.10132 | -3.23350 | -2.79167 | -2.49767 | -2.79342 | -2.44648 | -2.21022 |
| 50.000 | .000 | -2.00000 | 1931.38574 | 51.03609 | 564.35918 | -3.3547 | -3.02246 | -3.01438 | -3.02183 | -2.44648 | -2.00945 |

TABLATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

(FETC04) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEC = 2693.0000 SQ.FT. XMPF = 1076.6800 IN. XO
LREF = 474.9000 IN. YMPF = .0000 IN. YO
SREF = 935.6000 IN. ZMPF = 375.0000 IN. ZO
SCALE = .0300

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|--------|----------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.500 | .000 | -2.00000 | 2608.07135 | 34.16512 | 520.74471 | -7.34062 | -5.37651 | -4.41317 | -5.63028 | -4.48772 | -3.77789 |
| 4.000 | 2.000 | -2.00000 | 2609.47937 | 34.18432 | 521.03742 | -7.18142 | -5.29065 | -4.33019 | -5.73098 | -4.42881 | -3.71727 |
| 4.000 | 4.000 | -2.00000 | 2610.52899 | 34.19799 | 521.24570 | -6.93232 | -5.15832 | -4.25982 | -5.57992 | -4.34142 | -3.67001 |
| 6.000 | 6.000 | -2.00000 | 2614.11072 | 34.24520 | 521.95236 | -6.67524 | -5.05576 | -4.24450 | -5.45335 | -4.27121 | -3.64662 |
| 8.000 | 8.000 | -2.00000 | 2614.27722 | 34.24222 | 521.95236 | -6.31908 | -4.91634 | -4.15020 | -5.19132 | -4.18197 | -3.59991 |
| 10.000 | 10.000 | -2.00000 | 2619.19357 | 34.31230 | 522.27669 | -6.03925 | -4.79649 | -4.08384 | -5.04631 | -4.10312 | -3.56670 |
| 12.000 | 12.000 | -2.00000 | 2615.71823 | 34.26563 | 522.27669 | -5.87352 | -4.70225 | -4.03558 | -4.91227 | -4.04551 | -3.52359 |
| 14.000 | 14.000 | -2.00000 | 2617.89397 | 34.29432 | 522.71407 | -5.69615 | -4.61921 | -4.00999 | -4.78821 | -3.99226 | -3.51110 |
| 16.000 | 16.000 | -2.00000 | 2615.78174 | 34.26626 | 522.28640 | -5.55567 | -4.56068 | -4.00189 | -4.74441 | -3.96578 | -3.52691 |
| 18.000 | 18.000 | -2.00000 | 2617.10403 | 34.28431 | 522.56139 | -5.52412 | -4.56154 | -4.02383 | -4.72395 | -3.95599 | -3.53360 |
| 20.000 | 20.000 | -2.00000 | 2615.61575 | 34.26406 | 522.25275 | -5.50674 | -4.57372 | -4.05239 | -4.72972 | -4.01410 | -3.54032 |
| 22.000 | 22.000 | -2.00000 | 2619.49699 | 34.31592 | 523.04321 | -5.58549 | -4.67374 | -4.13564 | -4.80363 | -4.09110 | -3.54032 |
| 24.000 | 24.000 | -2.00000 | 2624.04565 | 34.37497 | 523.94328 | -5.63990 | -4.80477 | -4.21801 | -4.91554 | -4.22150 | -3.54032 |
| GRADIENT | | .00000 | .61442 | .00822 | .12524 | .10208 | .05455 | .03834 | .06559 | .03558 | .02899 |

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TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = -.000
A1LRON = .000 BOFLAP = -7.170

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA = | BETA | PT | P | QCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------|---------|-------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .0000 | .0000 | 2635.1333 | 2067.16983 | 568.96451 | -.00103 | .00121 | -.00015 | -.00064 | -.00099 | -.00013 |
| .600 | .0000 | .0000 | 2635.4282 | 2067.42532 | 569.02750 | -.00108 | -.00004 | -.00012 | -.00089 | -.00004 | -.00010 |
| .600 | .0000 | .0000 | 2638.3684 | 2068.64335 | 569.52808 | .00305 | .00108 | -.00043 | .00253 | -.00069 | -.00035 |
| .600 | .0000 | .0000 | 2635.8372 | 2067.04514 | 568.79059 | .00210 | .00127 | -.00000 | .00176 | .00106 | -.00000 |
| .600 | .0000 | .0000 | 2638.20016 | 2067.24375 | 569.95142 | -.00034 | .00073 | -.00002 | -.00029 | .00051 | -.00065 |
| .600 | .0000 | .0000 | 2635.9349 | 2067.10458 | 568.83035 | -.00092 | .00137 | .00010 | -.00079 | .00119 | -.00008 |
| .600 | .0000 | .0000 | 2635.46113 | 2066.78952 | 568.67661 | -.00078 | .00067 | -.00233 | -.00068 | -.00059 | -.00233 |
| .600 | .0000 | .0000 | 2635.11768 | 2067.19876 | 568.91891 | -.00123 | -.00075 | -.00224 | -.00108 | -.00057 | -.00099 |
| .600 | .0000 | .0000 | 2635.9533 | 2067.16286 | 568.22335 | -.00045 | .00038 | -.00210 | -.00041 | -.00054 | -.00091 |
| .600 | .0000 | .0000 | 2638.61073 | 2068.90408 | 568.61855 | -.00269 | .00249 | -.00410 | .00249 | -.00231 | -.00159 |
| .600 | .0000 | .0000 | 2635.71691 | 2065.12432 | 569.35559 | -.00811 | -.00699 | -.04860 | .00764 | -.00659 | -.00159 |
| .600 | .0000 | .0000 | 2635.10291 | 2062.55417 | 567.52264 | -.01653 | .01152 | -.00655 | -.01596 | -.01109 | -.00821 |
| .600 | .0000 | .0000 | 2629.57571 | 2061.78364 | 567.94977 | -.03184 | -.02038 | -.01918 | -.03123 | -.02000 | -.01922 |
| .600 | .0000 | .0000 | .55553 | .41762 | .14089 | -.00102 | -.00003 | -.00015 | -.00064 | -.00003 | -.00012 |

RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA = | BETA | PT | P | QCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------|---------|-------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .0000 | .0000 | 2113.98129 | 1249.92323 | 864.05185 | -.00091 | -.00095 | -.00188 | -.00097 | -.00074 | -.00145 |
| .600 | .0000 | .0000 | 2112.05485 | 1248.77386 | 863.27899 | .00035 | .00124 | -.00075 | .00027 | -.00097 | -.00059 |
| .600 | .0000 | .0000 | 2118.18939 | 1252.35219 | 865.83521 | -.00145 | .00120 | -.00155 | -.00115 | -.00085 | -.00123 |
| .600 | .0000 | .0000 | 2114.64334 | 1253.29312 | 864.34464 | -.00293 | -.00248 | -.00286 | -.00257 | -.00201 | -.00231 |
| .600 | .0000 | .0000 | 2110.03122 | 1247.57364 | 863.45758 | -.00172 | -.00040 | -.00029 | -.00112 | -.00063 | -.00064 |
| .600 | .0000 | .0000 | 2112.73331 | 1247.11783 | 863.61572 | -.00092 | .00117 | -.00022 | -.00069 | -.00059 | -.00091 |
| .600 | .0000 | .0000 | 2117.11231 | 1251.25032 | 863.43639 | -.00195 | -.00147 | -.00106 | -.00091 | -.00056 | -.00091 |
| .600 | .0000 | .0000 | 2115.02139 | 1251.75624 | 863.41224 | -.00240 | -.00240 | -.00232 | -.00235 | -.00210 | -.00203 |
| .600 | .0000 | .0000 | 2113.23513 | 1249.05811 | 863.95329 | -.00303 | -.00111 | -.00144 | -.00182 | -.00099 | -.00169 |
| .600 | .0000 | .0000 | 2113.23513 | 1249.47339 | 863.82112 | -.00399 | -.00209 | -.00209 | -.00354 | -.00191 | -.00159 |
| .600 | .0000 | .0000 | 2111.35457 | 1248.25053 | 863.10052 | -.00706 | -.00456 | -.00456 | -.00659 | -.00475 | -.00456 |
| .600 | .0000 | .0000 | 2113.78271 | 1247.85442 | 862.92493 | -.01403 | -.00656 | -.00771 | -.00659 | -.00475 | -.00456 |
| .600 | .0000 | .0000 | 2113.14282 | 1249.38308 | 863.75931 | -.02217 | -.01510 | -.01331 | -.02160 | -.01471 | -.01296 |
| .600 | .0000 | .0000 | 1.05164 | .60574 | .144609 | -.00013 | -.00006 | -.00009 | -.00011 | -.00005 | -.00005 |

TUBULATED DATA - 0A161 (ARC 11-97-87-09+)
ARC 11-97-87-09+ 0A161 ORBITER + RAKES

(FETC05) (02 AUG 75)

PARAMETRIC DATA

SPEE = 2690.0000 SQ.FT. XMPR = 1076.6900 IN. XO
LREF = 474.8000 IN. YMPR = .0000 IN. YO
BREF = 935.6900 IN. ZMPR = 375.0000 IN. ZO
SCALE = .0300

REFERENCE DATA

MACH = 1.420
ALPHA = .000
ELEVON = .000
BDFLAP = -7.172
ALLRON = .000

RV/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT074 | DPT084 | DPT094 |
|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| .00000 | 2009.78+01 | 826.63679 | 1165.30751 | -.01694 | -.01752 | -.01794 | -.01346 | -.01425 | -.01425 |
| .00000 | 2006.93002 | 827.95351 | 1165.34581 | -.01553 | -.01433 | -.01525 | -.01238 | -.01216 | -.01216 |
| .00000 | 2006.93340 | 827.74992 | 1165.05932 | -.01623 | -.01524 | -.01508 | -.01325 | -.01231 | -.01231 |
| .00000 | 2012.21327 | 823.45935 | 1167.47879 | -.01725 | -.01559 | -.01450 | -.01421 | -.01195 | -.01195 |
| .00000 | 2011.68622 | 823.32522 | 1167.2747 | -.01705 | -.01604 | -.01522 | -.01421 | -.01192 | -.01192 |
| .00000 | 2012.05740 | 823.42225 | 1167.41281 | -.01727 | -.01674 | -.01632 | -.01569 | -.01327 | -.01327 |
| .00000 | 2012.68960 | 823.63925 | 1167.79337 | -.01753 | -.01717 | -.01692 | -.01630 | -.01391 | -.01391 |
| .00000 | 2012.78551 | 823.69245 | 1167.79337 | -.01824 | -.01772 | -.01747 | -.01684 | -.01445 | -.01445 |
| .00000 | 2011.04119 | 823.14474 | 1167.02246 | -.01939 | -.01893 | -.01876 | -.01813 | -.01574 | -.01574 |
| .00000 | 2012.20630 | 823.51370 | 1167.54175 | -.02042 | -.02023 | -.02023 | -.01958 | -.01719 | -.01719 |
| .00000 | 2013.50477 | 831.53033 | 1170.39017 | -.02613 | -.02623 | -.02623 | -.02558 | -.02319 | -.02319 |
| .00000 | 2011.94966 | 831.43653 | 1170.20268 | -.02805 | -.02805 | -.02805 | -.02740 | -.02501 | -.02501 |
| .00000 | 2014.63446 | 830.32622 | 1166.62326 | -.03018 | -.03027 | -.03027 | -.02962 | -.02723 | -.02723 |
| .00000 | 2011.79766 | 822.22172 | 1163.1207 | | | | | | |

| BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT074 | DPT084 | DPT094 |
|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| .00000 | 2043.25790 | 642.23148 | 1316.08347 | -.11263 | -.12533 | -.08951 | -.08665 | -.05917 | -.05917 |
| .00000 | 2048.25000 | 643.57806 | 1318.84294 | -.10435 | -.09933 | -.08759 | -.08112 | -.05882 | -.05882 |
| .00000 | 2050.62442 | 643.66650 | 1312.67154 | -.10059 | -.09797 | -.08556 | -.07745 | -.05822 | -.05822 |
| .00000 | 2050.48167 | 643.45661 | 1312.71315 | -.09828 | -.09526 | -.08342 | -.07532 | -.05752 | -.05752 |
| .00000 | 2050.7697 | 643.77697 | 1313.10285 | -.09115 | -.09322 | -.08106 | -.07296 | -.05623 | -.05623 |
| .00000 | 2052.97712 | 653.62427 | 1310.74052 | -.09527 | -.09172 | -.08010 | -.07201 | -.05614 | -.05614 |
| .00000 | 2054.53145 | 643.07526 | 1311.65714 | -.09163 | -.09112 | -.08010 | -.07201 | -.05614 | -.05614 |
| .00000 | 2054.1129 | 641.44891 | 1313.86494 | -.09782 | -.09123 | -.08010 | -.07201 | -.05614 | -.05614 |
| .00000 | 2054.8711 | 640.17445 | 1311.72563 | -.10271 | -.09191 | -.08010 | -.07201 | -.05614 | -.05614 |
| .00000 | 2059.20078 | 638.64644 | 1308.74099 | -.10412 | -.09353 | -.08010 | -.07201 | -.05614 | -.05614 |
| .00000 | 2059.33076 | 638.30320 | 1308.26305 | -.10523 | -.09423 | -.08010 | -.07201 | -.05614 | -.05614 |
| .00000 | 2059.09555 | 638.46752 | 1308.56924 | -.10623 | -.09523 | -.08010 | -.07201 | -.05614 | -.05614 |
| .00000 | 2059.77728 | 638.77728 | 1308.19308 | -.10354 | -.09334 | -.08010 | -.07201 | -.05614 | -.05614 |

(RETCODE) (02 AUG 76)

REFERENCE DATA
SREF = 2590.0000 SQ.FT.
LREF = 474.8000 IN.
BREF = 936.6900 IN.
SCALE = .0300

PARAMETRIC DATA
BETA = .0000
ELEVON = .000
AILRON = .000
SUFAP = -7.110

MACH = 1.550
RN/L = 3.05
GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | P | OCOMP | OPT042 | OPT052 | OPT054 | OPT054 | OPT054 |
|-------|-----------|-----------|------------|---------|---------|---------|---------|---------|
| .0000 | 159.54595 | 401.10618 | 1045.16287 | -.19499 | -.18013 | -.15365 | -.15365 | -.15365 |
| .0000 | 158.66228 | 401.46397 | 1045.11082 | -.19256 | -.17392 | -.15593 | -.15593 | -.15593 |
| .0000 | 158.60316 | 401.35916 | 1045.84863 | -.18478 | -.16821 | -.15295 | -.15295 | -.15295 |
| .0000 | 159.17139 | 401.59653 | 1045.91879 | -.17500 | -.16136 | -.15133 | -.15133 | -.15133 |
| .0000 | 158.28792 | 401.54714 | 1045.31867 | -.17500 | -.16133 | -.15133 | -.15133 | -.15133 |
| .0000 | 158.01578 | 401.96475 | 1047.45055 | -.16247 | -.14877 | -.14877 | -.14877 | -.14877 |
| .0000 | 153.74577 | 402.14303 | 1047.86478 | -.17492 | -.16235 | -.15295 | -.15295 | -.15295 |
| .0000 | 156.30254 | 402.03289 | 1047.57710 | -.16345 | -.15473 | -.14933 | -.14933 | -.14933 |
| .0000 | 159.15108 | 402.59367 | 1047.73572 | -.16533 | -.15439 | -.14933 | -.14933 | -.14933 |
| .0000 | 152.51020 | 402.26313 | 1048.17936 | -.16235 | -.15133 | -.14933 | -.14933 | -.14933 |
| .0000 | 159.03697 | 402.57225 | 1048.20312 | -.16235 | -.15133 | -.14933 | -.14933 | -.14933 |
| .0000 | 153.57160 | 402.12145 | 1047.91384 | -.19419 | -.17473 | -.16235 | -.16235 | -.16235 |
| .0000 | 153.26136 | 402.15140 | 1047.53179 | -.19419 | -.17473 | -.16235 | -.16235 | -.16235 |
| .0000 | 153.26136 | 402.06520 | 1047.17171 | -.00358 | -.00258 | -.00358 | -.00358 | -.00358 |

MACH = 1.750
RN/L = 3.04
GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | P | OCOMP | OPT042 | OPT052 | OPT054 | OPT054 | OPT054 |
|-------|-----------|-----------|------------|---------|---------|---------|---------|---------|
| .0000 | 167.17608 | 311.37285 | 1072.15597 | -.39003 | -.35266 | -.30549 | -.30549 | -.30549 |
| .0000 | 167.19976 | 311.31161 | 1072.31970 | -.37186 | -.32991 | -.28380 | -.28380 | -.28380 |
| .0000 | 167.20947 | 311.27143 | 1071.81404 | -.36000 | -.31336 | -.27091 | -.27091 | -.27091 |
| .0000 | 166.42762 | 311.34322 | 1071.34035 | -.35122 | -.31064 | -.26830 | -.26830 | -.26830 |
| .0000 | 165.12768 | 311.28416 | 1071.85733 | -.34724 | -.30549 | -.26489 | -.26489 | -.26489 |
| .0000 | 165.12768 | 311.28232 | 1071.69591 | -.34382 | -.30349 | -.26489 | -.26489 | -.26489 |
| .0000 | 165.12768 | 311.14009 | 1071.72603 | -.34293 | -.30299 | -.26489 | -.26489 | -.26489 |
| .0000 | 165.12768 | 311.15681 | 1071.72603 | -.34293 | -.30299 | -.26489 | -.26489 | -.26489 |
| .0000 | 165.12768 | 311.15681 | 1071.42461 | -.34293 | -.30299 | -.26489 | -.26489 | -.26489 |
| .0000 | 165.12768 | 311.15681 | 1071.24332 | -.34293 | -.30299 | -.26489 | -.26489 | -.26489 |
| .0000 | 165.12768 | 311.15681 | 1071.64973 | -.34293 | -.30299 | -.26489 | -.26489 | -.26489 |
| .0000 | 165.12768 | 311.28232 | 1071.65149 | -.34293 | -.30299 | -.26489 | -.26489 | -.26489 |
| .0000 | 165.12768 | 311.26139 | 1071.77823 | -.35263 | -.31691 | -.28380 | -.28380 | -.28380 |
| .0000 | 165.12768 | 311.13413 | 1071.09549 | -.00478 | -.00405 | -.00478 | -.00478 | -.00478 |

A 8

TABULATED DATA - CA161 (ARC 11-87-87-094)

ARC 11-97-87-094 CA161 ORBITER + RAKES

(FE7C05) (02 AUG 76)

REFERENCE DATA

SPEF = 2590.0000 SQ.FT.
LREF = 474.8000 IN.
BREF = 935.6800 IN.
SCALE = .0300
MACH = 2.000
ALPHA = .000
2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
18.000
20.000
22.000
24.000
GRADIENT

PARAMETRIC DATA

BETA = .000
AIRLON = .000
ELEVON = .000
BDFLAP = -7.170

RNVL = 3.05 GRADIENT INTERVAL = -5.004 5.00

Table with columns: MACH, ALPHA, BETA, PT, P, QCOMP, DPT052, DPT042, DPT044, DPT054, DPT064. Values range from .00000 to .00410.

RNVL = 3.03 GRADIENT INTERVAL = -5.004 5.00

Table with columns: MACH, ALPHA, BETA, PT, P, QCOMP, DPT052, DPT042, DPT044, DPT054, DPT064. Values range from .00000 to .00410.

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(FE7C05) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER * RAMES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RN/L = 2.00 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|-------|--------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 2.500 | .000 | .00000 | 1495.02940 | 87.42978 | 658.00938 | -1.37837 | -1.38637 | -1.19662 | -1.39909 | -1.14430 | -1.00338 |
| 2.000 | .000 | .00000 | 1495.07198 | 87.43218 | 658.02643 | -1.71172 | -1.37293 | -1.18669 | -1.38422 | -1.13744 | -0.98566 |
| 4.000 | .000 | .00000 | 1494.35016 | 87.38912 | 657.70238 | -1.68936 | -1.36287 | -1.16900 | -1.36630 | -1.13046 | -0.98264 |
| 6.000 | .000 | .00000 | 1494.94664 | 87.42504 | 657.97271 | -1.64843 | -1.33416 | -1.15188 | -1.34513 | -1.11298 | -0.97353 |
| 8.000 | .000 | .00000 | 1495.11034 | 87.43490 | 658.04689 | -1.59465 | -1.30615 | -1.14184 | -1.30875 | -1.09378 | -0.96739 |
| 10.000 | .000 | .00000 | 1494.33298 | 87.38847 | 657.69749 | -1.54947 | -1.28984 | -1.13149 | -1.27959 | -1.08442 | -0.96198 |
| 12.000 | .000 | .00000 | 1494.98853 | 87.42791 | 657.99431 | -1.50336 | -1.26121 | -1.12018 | -1.25239 | -1.06790 | -0.95764 |
| 14.000 | .000 | .00000 | 1494.32796 | 87.38815 | 657.69506 | -1.45889 | -1.24236 | -1.11657 | -1.22411 | -1.05741 | -0.95335 |
| 16.000 | .000 | .00000 | 1494.89258 | 87.42212 | 657.95069 | -1.44068 | -1.21477 | -1.12773 | -1.21455 | -1.05019 | -0.97025 |
| 18.000 | .000 | .00000 | 1494.35973 | 87.39025 | 657.71090 | -1.41842 | -1.23152 | -1.12184 | -1.20451 | -1.05813 | -0.97051 |
| 20.000 | .000 | .00000 | 1494.85466 | 87.41989 | 657.93397 | -1.41960 | -1.24422 | -1.13028 | -1.20990 | -1.07183 | -0.99057 |
| 22.000 | .000 | .00000 | 1494.36290 | 87.39047 | 657.71252 | -1.43959 | -1.26678 | -1.14681 | -1.23064 | -1.09481 | -0.99830 |
| 24.000 | .000 | .00000 | 1494.88579 | 87.42173 | 657.94775 | -1.44643 | -1.27881 | -1.15563 | -1.24523 | -1.11152 | -1.01161 |
| GRADIENT | | | | | | .01402 | .00637 | .00715 | .00820 | .00346 | .00443 |

RN/L = 1.93 GRADIENT INTERVAL = -5.007 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|-------|--------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.000 | .000 | .00000 | 1940.57863 | 51.17667 | 566.06326 | -3.60386 | -2.73868 | -2.30581 | -2.88206 | -2.26399 | -1.95433 |
| 2.000 | .000 | .00000 | 1940.33086 | 51.16886 | 565.97688 | -3.54337 | -2.70730 | -2.27127 | -2.84418 | -2.25497 | -1.92972 |
| 4.000 | .000 | .00000 | 1939.42018 | 51.14571 | 565.72091 | -3.46403 | -2.67167 | -2.24583 | -2.79699 | -2.23359 | -1.91394 |
| 6.000 | .000 | .00000 | 1939.65381 | 51.15674 | 565.84290 | -3.35665 | -2.60700 | -2.21710 | -2.73159 | -2.19176 | -1.89652 |
| 8.000 | .000 | .00000 | 1939.91023 | 51.13770 | 565.63232 | -3.21372 | -2.55411 | -2.20374 | -2.64084 | -2.15907 | -1.88173 |
| 10.000 | .000 | .00000 | 1939.71480 | 51.16037 | 565.88296 | -3.12201 | -2.51682 | -2.18523 | -2.58721 | -2.13950 | -1.88425 |
| 12.000 | .000 | .00000 | 1939.08939 | 51.14639 | 565.72841 | -3.01819 | -2.45790 | -2.16556 | -2.52449 | -2.10363 | -1.87646 |
| 14.000 | .000 | .00000 | 1939.37943 | 51.15133 | 565.78307 | -2.94724 | -2.42536 | -2.15762 | -2.47941 | -2.08410 | -1.87465 |
| 16.000 | .000 | .00000 | 1938.79555 | 51.13805 | 565.63618 | -2.88378 | -2.41435 | -2.15626 | -2.44308 | -2.08388 | -1.88058 |
| 18.000 | .000 | .00000 | 1939.37152 | 51.15323 | 565.80401 | -2.85093 | -2.41563 | -2.16403 | -2.43297 | -2.09619 | -1.89634 |
| 20.000 | .000 | .00000 | 1939.61790 | 51.16009 | 565.87935 | -2.83504 | -2.43432 | -2.17803 | -2.43184 | -2.11962 | -1.91492 |
| 22.000 | .000 | .00000 | 1938.83843 | 51.13627 | 565.63956 | -2.87638 | -2.48090 | -2.21584 | -2.47761 | -2.16762 | -1.95482 |
| 24.000 | .000 | .00000 | 1939.35316 | 51.15332 | 565.80502 | -2.87556 | -2.49890 | -2.22345 | -2.46981 | -2.19226 | -1.96863 |
| GRADIENT | | | | | | -.00774 | .01475 | .01498 | .02127 | .00911 | .01010 |

(FE7C05) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-084)
 ARC 11-97-87-084 0A161 ORBITER + RAKES.

PARAMETRIC DATA

BETA = .000 ELEVOM = .000
 ALLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RNKL = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | Pf | P | QCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|-------|--------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.500 | .000 | .00000 | 2632.31385 | 34.57549 | 526.98953 | -6.54998 | -4.75946 | -3.91414 | -5.22526 | -3.98816 | -3.35874 |
| 2.000 | .000 | .00000 | 2640.01656 | 34.58445 | 527.13617 | -6.45172 | -4.72145 | -3.82707 | -5.16263 | -3.96189 | -3.31719 |
| 4.000 | .000 | .00000 | 2640.89956 | 34.59589 | 527.31057 | -6.24167 | -4.61725 | -3.82182 | -5.03445 | -3.89312 | -3.29563 |
| 6.000 | .000 | .00000 | 2644.64435 | 34.64481 | 528.05621 | -6.09536 | -4.54655 | -3.78711 | -4.91967 | -3.84753 | -3.27388 |
| 8.000 | .000 | .00000 | 2645.62357 | 34.67127 | 528.49525 | -5.70792 | -4.39026 | -3.72564 | -4.70377 | -3.74543 | -3.23705 |
| 10.000 | .000 | .00000 | 2646.80231 | 34.67362 | 528.49525 | -5.49363 | -4.29268 | -3.68775 | -4.45390 | -3.68289 | -3.21441 |
| 12.000 | .000 | .00000 | 2647.36554 | 34.68086 | 528.60566 | -5.31029 | -4.20363 | -3.65516 | -4.28422 | -3.62833 | -3.20490 |
| 14.000 | .000 | .00000 | 2652.42508 | 34.74652 | 529.60644 | -5.16798 | -4.16136 | -3.64626 | -4.06862 | -3.58679 | -3.19978 |
| 16.000 | .000 | .00000 | 2653.07376 | 34.75490 | 529.73420 | -5.02559 | -4.11735 | -3.62476 | -4.28422 | -3.52715 | -3.19978 |
| 18.000 | .000 | .00000 | 2650.25250 | 34.71894 | 529.18607 | -5.00214 | -4.14665 | -3.65799 | -4.28620 | -3.62715 | -3.23923 |
| 20.000 | .000 | .00000 | 2651.57239 | 34.73560 | 529.43997 | -4.98551 | -4.18178 | -3.67867 | -4.29059 | -3.65753 | -3.26528 |
| 22.000 | .000 | .00000 | 2652.55411 | 34.74832 | 529.63383 | -5.01949 | -4.25498 | -3.72971 | -4.34077 | -3.74394 | -3.32153 |
| 24.000 | .000 | .00000 | 2651.96234 | 34.74070 | 529.51771 | -5.10065 | -4.33428 | -3.78370 | -4.41644 | -3.81874 | -3.37508 |
| GRADIENT | | .00000 | .39604 | .00510 | .07776 | .07708 | .03555 | .02308 | .04770 | .02376 | .01603 |

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TABLATED DATA - 0A161 (ARC 11-97-87-08%)
ARC 11-97-87-08% 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0800 IN. ZO
SCALE = .0300

RW/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.200 | .000 | 2.00000 | 2009.56424 | 828.76637 | 1166.48990 | -.01748 | -.01684 | -.01676 | -.01366 | -.01307 | -.01301 |
| 2.000 | 2.000 | 2.00000 | 2008.90266 | 828.44971 | 1166.04420 | -.01815 | -.01780 | -.01582 | -.01405 | -.01378 | -.01226 |
| 4.000 | 4.000 | 2.00000 | 2009.08881 | 828.45168 | 1166.04684 | -.01648 | -.01559 | -.01367 | -.01298 | -.01228 | -.01077 |
| 6.000 | 6.000 | 2.00000 | 2012.49275 | 829.60759 | 1167.67398 | -.01625 | -.01489 | -.01367 | -.01305 | -.01197 | -.01191 |
| 8.000 | 8.000 | 2.00000 | 2012.15788 | 829.57092 | 1167.62238 | -.01734 | -.01681 | -.01486 | -.01398 | -.01348 | -.01194 |
| 10.000 | 10.000 | 2.00000 | 2011.92180 | 829.36008 | 1167.32553 | -.01610 | -.01521 | -.01442 | -.01267 | -.01245 | -.01136 |
| 12.000 | 12.000 | 2.00000 | 2013.54626 | 829.94019 | 1168.14247 | -.01628 | -.01521 | -.01465 | -.01276 | -.01192 | -.01148 |
| 14.000 | 14.000 | 2.00000 | 2015.19850 | 830.94401 | 1168.79063 | -.01685 | -.01583 | -.01528 | -.01346 | -.01265 | -.01216 |
| 16.000 | 16.000 | 2.00000 | 2013.69295 | 829.94411 | 1168.14755 | -.01686 | -.01585 | -.01537 | -.01378 | -.01295 | -.01256 |
| 18.000 | 18.000 | 2.00000 | 2013.23676 | 829.86232 | 1168.03244 | -.01714 | -.01574 | -.01537 | -.01357 | -.01256 | -.01259 |
| 20.000 | 20.000 | 2.00000 | 2017.18069 | 830.97342 | 1169.59631 | -.01755 | -.01580 | -.01588 | -.01342 | -.01266 | -.01288 |
| 22.000 | 22.000 | 2.00000 | 2019.10837 | 831.89905 | 1170.89317 | -.02442 | -.02335 | -.02098 | -.02063 | -.01912 | -.01795 |
| 24.000 | 24.000 | 2.00000 | 2020.01411 | 832.02087 | 1171.07062 | -.02980 | -.02550 | -.02489 | -.02499 | -.02198 | -.02145 |
| GRADIENT | | | | | | .00025 | .00031 | .00077 | .00014 | .00020 | .00056 |

RW/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|--------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.400 | .000 | 2.00000 | 2044.20867 | 642.54803 | 1346.73218 | -.10405 | -.09455 | -.08175 | -.07878 | -.07174 | -.06220 |
| 2.000 | 2.000 | 2.00000 | 2046.48904 | 643.12830 | 1317.92126 | -.09699 | -.09158 | -.07944 | -.07409 | -.06996 | -.06085 |
| 4.000 | 4.000 | 2.00000 | 2041.44493 | 641.78366 | 1315.16579 | -.09049 | -.08986 | -.07908 | -.07809 | -.06969 | -.06134 |
| 6.000 | 6.000 | 2.00000 | 2044.57449 | 642.82668 | 1316.88333 | -.09171 | -.08881 | -.07722 | -.07186 | -.06863 | -.06088 |
| 8.000 | 8.000 | 2.00000 | 2040.79663 | 641.78628 | 1315.00722 | -.08934 | -.08689 | -.07653 | -.07070 | -.06888 | -.06072 |
| 10.000 | 10.000 | 2.00000 | 2035.77562 | 648.44118 | 1312.41475 | -.08923 | -.08540 | -.07600 | -.07139 | -.06838 | -.06096 |
| 12.000 | 12.000 | 2.00000 | 2036.94429 | 648.72521 | 1312.99680 | -.08705 | -.08443 | -.07316 | -.07025 | -.06576 | -.05916 |
| 14.000 | 14.000 | 2.00000 | 2038.66687 | 641.42471 | 1314.43022 | -.08310 | -.08033 | -.07288 | -.07025 | -.06572 | -.05971 |
| 16.000 | 16.000 | 2.00000 | 2039.80768 | 641.40278 | 1314.38522 | -.08317 | -.08148 | -.07228 | -.06894 | -.06572 | -.06002 |
| 18.000 | 18.000 | 2.00000 | 2038.32677 | 641.26414 | 1314.10118 | -.08730 | -.08134 | -.07179 | -.07288 | -.06769 | -.06091 |
| 20.000 | 20.000 | 2.00000 | 2033.81595 | 639.92600 | 1311.35902 | -.09334 | -.08375 | -.07598 | -.07807 | -.07017 | -.06374 |
| 22.000 | 22.000 | 2.00000 | 2023.58159 | 637.19749 | 1305.76765 | -.08895 | -.08601 | -.07995 | -.08315 | -.07487 | -.06737 |
| 24.000 | 24.000 | 2.00000 | 2021.60355 | 636.67937 | 1304.70592 | -.10546 | -.09213 | -.08433 | -.08345 | -.07819 | -.07164 |
| GRADIENT | | | | | | .08339 | .00415 | .00689 | .08217 | .00051 | .00022 |

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

(FETC06) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALTRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 938.8900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RVL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|-------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 1.500 | .000 | 2.00000 | 1568.49995 | 397.96604 | 1036.97801 | -18256 | -16302 | -14578 | -13822 | -12393 | -11122 |
| 2.000 | .000 | 2.00000 | 1570.76030 | 398.53608 | 1038.46596 | -17925 | -16618 | -14409 | -13719 | -12307 | -11106 |
| 4.000 | .000 | 2.00000 | 1572.20836 | 398.86619 | 1039.32613 | -17268 | -15908 | -14003 | -13334 | -11940 | -10882 |
| 6.000 | .000 | 2.00000 | 1572.37077 | 398.90957 | 1039.43916 | -16747 | -14760 | -13558 | -13115 | -11617 | -10661 |
| 8.000 | .000 | 2.00000 | 1573.70795 | 399.28253 | 1040.33282 | -16185 | -14564 | -13374 | -12811 | -11561 | -10639 |
| 10.000 | .000 | 2.00000 | 1573.65640 | 399.24512 | 1040.31351 | -15978 | -14542 | -13447 | -12763 | -11644 | -10788 |
| 12.000 | .000 | 2.00000 | 1572.64693 | 398.98661 | 1039.63991 | -15724 | -14174 | -13066 | -12388 | -11449 | -10589 |
| 14.000 | .000 | 2.00000 | 1572.69780 | 399.00035 | 1039.67572 | -15508 | -14511 | -13223 | -12793 | -11829 | -10782 |
| 16.000 | .000 | 2.00000 | 1572.12041 | 398.84422 | 1039.19870 | -15248 | -14518 | -13223 | -12571 | -11897 | -10858 |
| 18.000 | .000 | 2.00000 | 1571.97598 | 398.81422 | 1039.19870 | -15271 | -14688 | -13307 | -12571 | -11882 | -11003 |
| 20.000 | .000 | 2.00000 | 1574.13762 | 399.36440 | 1040.62433 | -15170 | -14688 | -13441 | -12988 | -12183 | -11169 |
| 22.000 | .000 | 2.00000 | 1576.42464 | 399.93516 | 1042.11156 | -15841 | -15271 | -14174 | -13425 | -12695 | -11802 |
| 24.000 | .000 | 2.00000 | 1576.99555 | 400.09383 | 1042.49895 | -16830 | -15841 | -15194 | -14022 | -13299 | -12699 |
| GRADIENT | | .00000 | .92511 | .22529 | .56703 | .00247 | .00224 | .00144 | .00122 | .00113 | .00060 |

RVL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|-------|---------|------------|-----------|------------|--------|--------|--------|--------|--------|--------|
| 1.750 | .000 | 2.00000 | 1656.77100 | 311.18817 | 1071.92611 | -35934 | -31499 | -28148 | -27515 | -24305 | -21846 |
| 2.000 | .000 | 2.00000 | 1655.31691 | 310.91837 | 1070.59709 | -35161 | -30795 | -27562 | -27088 | -23902 | -21511 |
| 4.000 | .000 | 2.00000 | 1655.46857 | 310.58666 | 1070.69418 | -34396 | -29908 | -26837 | -26743 | -23428 | -21130 |
| 6.000 | .000 | 2.00000 | 1656.56986 | 310.57610 | 1070.77524 | -33665 | -29666 | -26588 | -26348 | -23370 | -21051 |
| 8.000 | .000 | 2.00000 | 1656.17558 | 311.07782 | 1071.14615 | -33401 | -29407 | -26543 | -26304 | -23307 | -21134 |
| 10.000 | .000 | 2.00000 | 1656.23152 | 311.08852 | 1071.13300 | -32832 | -29288 | -26979 | -26300 | -23380 | -20900 |
| 12.000 | .000 | 2.00000 | 1656.29276 | 311.09915 | 1071.22861 | -32673 | -29288 | -26432 | -26730 | -23543 | -20681 |
| 14.000 | .000 | 2.00000 | 1656.36481 | 311.11328 | 1071.26786 | -32284 | -27475 | -24688 | -24740 | -22534 | -2032 |
| 16.000 | .000 | 2.00000 | 1655.64990 | 310.98056 | 1070.81129 | -28871 | -26748 | -24626 | -23884 | -22173 | -20472 |
| 18.000 | .000 | 2.00000 | 1655.12805 | 311.06919 | 1071.11641 | -29121 | -27064 | -25245 | -24196 | -22548 | -21083 |
| 20.000 | .000 | 2.00000 | 1656.39803 | 311.11927 | 1071.28888 | -30126 | -27976 | -25857 | -25085 | -23359 | -21649 |
| 22.000 | .000 | 2.00000 | 1656.98810 | 311.04332 | 1071.02734 | -31275 | -28304 | -26253 | -26262 | -23854 | -22184 |
| 24.000 | .000 | 2.00000 | 1655.65131 | 310.98100 | 1070.81276 | -32129 | -28466 | -26565 | -27142 | -24152 | -22590 |
| GRADIENT | | .00000 | .32568 | -.06840 | -.20799 | .09385 | .00398 | .00328 | .00193 | .00219 | .00179 |

TABLATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = 0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0360

RM/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT074 | DPT084 | DPT094 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 2.000 | .000 | 2.00000 | 1845.98238 | 235.71687 | 1093.83054 | -.66252 | -.55706 | -.48782 | -.52092 | -.44418 | -.39236 |
| 2.000 | .000 | 2.00000 | 1845.69019 | 235.68356 | 1093.67549 | -.67538 | -.54716 | -.48015 | -.51075 | -.43848 | -.38812 |
| 4.000 | .000 | 2.00000 | 1844.79626 | 235.56110 | 1093.10722 | -.63616 | -.53682 | -.47220 | -.50766 | -.43371 | -.38461 |
| 6.000 | .000 | 2.00000 | 1844.06850 | 235.46566 | 1092.66437 | -.61428 | -.52782 | -.46571 | -.49426 | -.42919 | -.38159 |
| 8.000 | .000 | 2.00000 | 1845.05612 | 235.59471 | 1093.26320 | -.60649 | -.52465 | -.46437 | -.48990 | -.42798 | -.38159 |
| 10.000 | .000 | 2.00000 | 1845.94762 | 235.71702 | 1093.83081 | -.59772 | -.51737 | -.46445 | -.48836 | -.42663 | -.38338 |
| 12.000 | .000 | 2.00000 | 1845.38353 | 235.63526 | 1093.45602 | -.57330 | -.50981 | -.45942 | -.47817 | -.42114 | -.38172 |
| 14.000 | .000 | 2.00000 | 1846.05315 | 235.72144 | 1093.85130 | -.58050 | -.50536 | -.45606 | -.47475 | -.41768 | -.38344 |
| 16.000 | .000 | 2.00000 | 1846.19392 | 235.73932 | 1093.93427 | -.55990 | -.49991 | -.45675 | -.46475 | -.41685 | -.38514 |
| 18.000 | .000 | 2.00000 | 1846.65709 | 235.79776 | 1094.20544 | -.54850 | -.49716 | -.45534 | -.45940 | -.41793 | -.38741 |
| 20.000 | .000 | 2.00000 | 1847.25053 | 235.88923 | 1094.62527 | -.55361 | -.50315 | -.45385 | -.46788 | -.42793 | -.39597 |
| 22.000 | .000 | 2.00000 | 1847.20595 | 235.88139 | 1094.59354 | -.56764 | -.50512 | -.46131 | -.48356 | -.43286 | -.40081 |
| 24.000 | .000 | 2.00000 | 1846.34912 | 235.77158 | 1094.08384 | -.57065 | -.50472 | -.46388 | -.48920 | -.43529 | -.40081 |
| GRADIENT | | .00000 | -.29651 | -.03997 | -.18083 | .00654 | .00506 | .00385 | .00333 | .00262 | .00194 |

RM/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT074 | DPT084 | DPT094 |
|----------|-------|---------|------------|-----------|------------|----------|---------|---------|---------|---------|---------|
| 2.250 | .000 | 2.00000 | 2059.21463 | 178.10006 | 1068.92479 | -1.11160 | -.90201 | -.78562 | -.86035 | -.71415 | -.62996 |
| 2.000 | .000 | 2.00000 | 2059.05692 | 178.08647 | 1068.84325 | -1.09028 | -.88205 | -.77083 | -.84988 | -.70287 | -.62170 |
| 4.000 | .000 | 2.00000 | 2059.38257 | 178.11435 | 1069.07056 | -1.06463 | -.87543 | -.75807 | -.83850 | -.70161 | -.61919 |
| 6.000 | .000 | 2.00000 | 2059.19321 | 178.09820 | 1068.94364 | -.85144 | -.85144 | -.74252 | -.81473 | -.68798 | -.60582 |
| 8.000 | .000 | 2.00000 | 2059.07996 | 178.08838 | 1068.85469 | -.83699 | -.83699 | -.73583 | -.79922 | -.68135 | -.60520 |
| 10.000 | .000 | 2.00000 | 2059.48004 | 178.12256 | 1069.05988 | -.82223 | -.82223 | -.73500 | -.78703 | -.67272 | -.59564 |
| 12.000 | .000 | 2.00000 | 2058.62692 | 178.04962 | 1068.62146 | -.80890 | -.80890 | -.72723 | -.77389 | -.66557 | -.58407 |
| 14.000 | .000 | 2.00000 | 2059.07443 | 178.08793 | 1068.95205 | -.83335 | -.80986 | -.78703 | -.76875 | -.66875 | -.58688 |
| 16.000 | .000 | 2.00000 | 2058.51588 | 178.04855 | 1068.61566 | -.91206 | -.79904 | -.72433 | -.75328 | -.66674 | -.58323 |
| 18.000 | .000 | 2.00000 | 2058.53250 | 178.04136 | 1068.57248 | -.90928 | -.79670 | -.72523 | -.75640 | -.67094 | -.58174 |
| 20.000 | .000 | 2.00000 | 2058.52417 | 178.04055 | 1068.56763 | -.90424 | -.79630 | -.72861 | -.75630 | -.68195 | -.58195 |
| 22.000 | .000 | 2.00000 | 2058.59705 | 178.04666 | 1068.60429 | -.92817 | -.81981 | -.73919 | -.78065 | -.69590 | -.63163 |
| 24.000 | .000 | 2.00000 | 2058.37736 | 178.02781 | 1068.49115 | -.91214 | -.79838 | -.72812 | -.77425 | -.68384 | -.62717 |
| GRADIENT | | .00000 | -.04193 | -.02144 | -.02144 | .00654 | .00686 | .00686 | .00596 | .00314 | .00359 |

(FE7C06) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SO.FT. XCRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0366

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = .000 EDFLAP = -7.170

RN/L = 2.00 GRADIENT INTERVAL = -5.004 5.09

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|--------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 2.500 | .000 | 2.00000 | 1487.32057 | 86.97802 | 654.60854 | -1.64472 | -1.29140 | -1.11340 | -1.30045 | -1.05046 | -1.91898 |
| 2.000 | 2.000 | 2.00000 | 1487.99101 | 87.01836 | 654.91200 | -1.61589 | -1.27932 | -1.10909 | -1.28040 | -1.04153 | -1.91565 |
| 4.000 | 4.000 | 2.00000 | 1487.96725 | 87.01707 | 654.90220 | -1.59081 | -1.26455 | -1.08723 | -1.27088 | -1.03649 | -1.91397 |
| 6.000 | 6.000 | 2.00000 | 1487.95211 | 87.01665 | 654.89940 | -1.54538 | -1.23850 | -1.07280 | -1.24581 | -1.02231 | -1.91657 |
| 8.000 | 8.000 | 2.00000 | 1487.95708 | 87.01653 | 654.89824 | -1.48368 | -1.20749 | -1.06073 | -1.20822 | -1.00463 | -1.91984 |
| 10.000 | 10.000 | 2.00000 | 1487.91705 | 87.01443 | 654.88243 | -1.43975 | -1.18380 | -1.04932 | -1.17977 | -0.98876 | -1.92598 |
| 12.000 | 12.000 | 2.00000 | 1487.93314 | 87.01538 | 654.88956 | -1.39883 | -1.16748 | -1.04494 | -1.15698 | -0.98200 | -1.93590 |
| 14.000 | 14.000 | 2.00000 | 1487.92639 | 87.01463 | 654.88538 | -1.37043 | -1.16710 | -1.04523 | -1.13954 | -0.98477 | -1.94799 |
| 16.000 | 16.000 | 2.00000 | 1487.94725 | 87.01604 | 654.89454 | -1.34490 | -1.17161 | -1.04722 | -1.12645 | -0.98792 | -1.96111 |
| 18.000 | 18.000 | 2.00000 | 1487.92914 | 87.01502 | 654.88682 | -1.33421 | -1.17258 | -1.05282 | -1.13010 | -1.00384 | -1.97858 |
| 20.000 | 20.000 | 2.00000 | 1487.96275 | 87.01727 | 654.90379 | -1.32543 | -1.16828 | -1.05342 | -1.13429 | -1.00965 | -1.91698 |
| 22.000 | 22.000 | 2.00000 | 1487.95438 | 87.01694 | 654.90131 | -1.33113 | -1.17167 | -1.05618 | -1.14898 | -1.02049 | -1.92518 |
| 24.000 | 24.000 | 2.00000 | 1487.98357 | 87.01867 | 654.91432 | -1.33113 | -1.17167 | -1.05618 | -1.14898 | -1.02049 | -1.92518 |
| GRADIENT | | .00000 | .16165 | .00976 | .07349 | .01348 | .00671 | .00654 | .00739 | .00349 | .00377 |

RN/L = 1.93 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|--------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|
| 3.000 | .000 | 2.00000 | 1939.19904 | 51.12361 | 565.47639 | -3.23743 | -2.43705 | -2.08035 | -2.59873 | -2.03198 | -1.76501 |
| 2.000 | 2.000 | 2.00000 | 1940.13321 | 51.14938 | 565.76151 | -3.20198 | -2.42382 | -2.05404 | -2.57717 | -2.02487 | -1.74633 |
| 4.000 | 4.000 | 2.00000 | 1939.45256 | 51.13434 | 565.59507 | -3.15557 | -2.39928 | -2.04018 | -2.55348 | -2.01134 | -1.74002 |
| 6.000 | 6.000 | 2.00000 | 1939.90688 | 51.13526 | 565.60524 | -3.04859 | -2.34755 | -2.01738 | -2.48812 | -1.97995 | -1.72738 |
| 8.000 | 8.000 | 2.00000 | 1939.64354 | 51.14013 | 565.55913 | -2.88685 | -2.27730 | -1.98226 | -2.39772 | -1.94559 | -1.71440 |
| 10.000 | 10.000 | 2.00000 | 1937.17825 | 51.07750 | 564.96639 | -2.84483 | -2.26854 | -1.98732 | -2.35917 | -1.93107 | -1.71363 |
| 12.000 | 12.000 | 2.00000 | 1929.09195 | 51.10284 | 565.24653 | -2.74748 | -2.25553 | -1.96886 | -2.29541 | -1.91043 | -1.70392 |
| 14.000 | 14.000 | 2.00000 | 1937.60146 | 51.08700 | 565.07146 | -2.66172 | -2.24067 | -1.95446 | -2.24313 | -1.89882 | -1.69870 |
| 16.000 | 16.000 | 2.00000 | 1939.26842 | 51.13221 | 565.57153 | -2.66172 | -2.22012 | -1.96140 | -2.22673 | -1.91475 | -1.71352 |
| 18.000 | 18.000 | 2.00000 | 1938.58479 | 51.11276 | 565.35637 | -2.99234 | -2.21885 | -1.96550 | -2.21268 | -1.92271 | -1.72155 |
| 20.000 | 20.000 | 2.00000 | 1938.72614 | 51.12192 | 565.45771 | -2.58513 | -2.22668 | -1.97564 | -2.22087 | -1.94020 | -1.73532 |
| 22.000 | 22.000 | 2.00000 | 1938.94917 | 51.12888 | 565.53468 | -2.58513 | -2.25554 | -1.99197 | -2.25198 | -1.97352 | -1.75937 |
| 24.000 | 24.000 | 2.00000 | 1938.96468 | 51.12836 | 565.52891 | -2.63718 | -2.28044 | -2.02253 | -2.28922 | -2.00556 | -1.79571 |
| GRADIENT | | .00000 | .07349 | .00268 | .02967 | .02046 | .00944 | .01004 | .01131 | .00516 | .00625 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

(FE7061 (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RM/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPT062 | DPT062 | DPT064 | DPT064 | DPT064 | DPT064 | DPT064 |
|-------|--------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|--------|--------|
| 3.500 | .000 | 2.00000 | 2667.88812 | 34.95721 | 532.71109 | -5.84998 | -3.54739 | -4.67376 | -3.56225 | -3.03958 | | |
| | 2.000 | 2.00000 | 2667.98584 | 34.95149 | 532.73055 | -5.75945 | -3.50529 | -4.61205 | -3.52573 | -3.00672 | | |
| | 4.000 | 2.00000 | 2667.95579 | 34.94608 | 532.64689 | -5.62176 | -3.47502 | -4.53537 | -3.49036 | -2.99133 | | |
| | 6.000 | 2.00000 | 2668.65705 | 34.96039 | 532.86630 | -5.44148 | -3.42742 | -4.42424 | -3.43004 | -2.95968 | | |
| | 8.000 | 2.00000 | 2662.83286 | 34.96260 | 532.89992 | -5.26225 | -3.40185 | -4.31734 | -3.38003 | -2.94829 | | |
| | 10.000 | 2.00000 | 2667.49628 | 34.94465 | 532.62630 | -5.00397 | -3.36902 | -4.15132 | -3.33683 | -2.93095 | | |
| | 12.000 | 2.00000 | 2669.63775 | 34.97392 | 533.07244 | -4.83928 | -3.34084 | -4.05262 | -3.31539 | -2.91942 | | |
| | 14.000 | 2.00000 | 2668.85501 | 34.96312 | 532.90790 | -4.71536 | -3.32101 | -3.97736 | -3.31590 | -2.91244 | | |
| | 16.000 | 2.00000 | 2669.65961 | 34.97344 | 533.06512 | -4.59955 | -3.31412 | -3.91212 | -3.30991 | -2.91695 | | |
| | 18.000 | 2.00000 | 2668.67300 | 34.96078 | 532.87227 | -4.53848 | -3.33488 | -3.89061 | -3.33008 | -2.96035 | | |
| | 20.000 | 2.00000 | 2570.18805 | 34.95334 | 533.17038 | -4.50005 | -3.36598 | -3.91428 | -3.36650 | -3.01877 | | |
| | 22.000 | 2.00000 | 2668.19308 | 34.95369 | 532.76417 | -4.58442 | -3.38882 | -3.97352 | -3.41974 | -3.08231 | | |
| | 24.000 | 2.00000 | 2670.01163 | 34.97799 | 533.13458 | -4.69592 | -3.49479 | -4.05975 | -3.49493 | -3.08231 | | |
| | | .00000 | -.08307 | -.00105 | -.01603 | .05705 | .01808 | .03435 | .01547 | .01205 | | |

(FET607) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 CRIBITER + RAKES.

REFERENCE DATA.

SREF = 2690.0300 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 5.000 ELEVON = .000
ATLRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|---------|------------|------------|-----------|--------|--------|--------|--------|--------|--------|
| .600 | 5.00000 | 2624.00095 | 2057.69289 | 566.31895 | .00181 | .00087 | .00083 | .00139 | .00024 | .00054 |
| ALPHA | 5.00000 | 2623.93231 | 2057.61972 | 566.31259 | .00130 | .00112 | .00126 | .00100 | .00066 | .00066 |
| .000 | 5.00000 | 2624.85635 | 2058.36877 | 566.48758 | .00076 | .00237 | .00443 | .00058 | .00086 | .00086 |
| 2.000 | 5.00000 | 2627.65573 | 2060.37476 | 567.28098 | .00039 | .00071 | .01104 | .00030 | .00181 | .00539 |
| 4.000 | 5.00000 | 2625.01135 | 2059.40189 | 566.60947 | .00238 | .00259 | .00292 | .00189 | .00205 | .00231 |
| 6.000 | 5.00000 | 2625.66368 | 2059.00568 | 566.85800 | .00190 | .00258 | .00321 | .00189 | .00207 | .01256 |
| 8.000 | 5.00000 | 2624.17407 | 2057.86670 | 566.50737 | .00195 | .06203 | .00220 | .00160 | .00166 | .00184 |
| 10.000 | 5.00000 | 2624.36069 | 2058.02087 | 566.33981 | .00152 | .00332 | .00221 | .00127 | .00277 | .00184 |
| 12.000 | 5.00000 | 2624.72835 | 2058.21182 | 566.51654 | .00126 | .00196 | .00217 | .00102 | .00167 | .00185 |
| 14.000 | 5.00000 | 2627.18732 | 2059.98523 | 567.20209 | .00137 | .00043 | .00020 | .00120 | .00038 | .00018 |
| 16.000 | 5.00000 | 2627.48154 | 2060.22818 | 567.25336 | .00361 | .00230 | .00103 | .00326 | .00207 | .00093 |
| 18.000 | 5.00000 | 2625.04254 | 2058.51157 | 566.53098 | .01038 | .00712 | .00450 | .00957 | .00657 | .00415 |
| 20.000 | 5.00000 | 2625.90552 | 2059.18618 | 566.72034 | .02651 | .01622 | .01451 | .02502 | .00657 | .01370 |
| 22.000 | 5.00000 | 2625.90552 | 2059.18618 | 566.72034 | .02651 | .01622 | .01451 | .02502 | .00657 | .01370 |
| 24.000 | 5.00000 | 2625.90552 | 2059.18618 | 566.72034 | .02651 | .01622 | .01451 | .02502 | .00657 | .01370 |
| GRADIENT | .00000 | .21387 | .17145 | .04238 | .00026 | .00038 | .00090 | .00020 | .00029 | .00059 |

RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|----------|---------|------------|------------|-----------|--------|--------|--------|--------|--------|--------|
| .900 | 5.00000 | 2111.48715 | 1249.50783 | 862.97934 | .00097 | .00035 | .00053 | .00068 | .00024 | .00044 |
| ALPHA | 5.00000 | 2115.43283 | 1250.78174 | 864.65109 | .00247 | .00251 | .00243 | .00176 | .00179 | .00173 |
| .000 | 5.00000 | 2117.10138 | 1251.73029 | 865.37109 | .00083 | .00043 | .00062 | .00068 | .00831 | .00045 |
| 2.000 | 5.00000 | 2114.78214 | 1250.37328 | 854.41888 | .00028 | .00062 | .00059 | .00015 | .00046 | .00044 |
| 4.000 | 5.00000 | 2109.96957 | 1247.40634 | 862.56323 | .00180 | .00136 | .00264 | .00135 | .00094 | .00198 |
| 6.000 | 5.00000 | 2116.56833 | 1251.47731 | 865.09103 | .00051 | .00122 | .00140 | .00039 | .00094 | .00113 |
| 8.000 | 5.00000 | 2116.71036 | 1251.56195 | 865.14841 | .00016 | .00011 | .00031 | .00013 | .00009 | .00024 |
| 10.000 | 5.00000 | 2112.28323 | 1248.90517 | 863.37808 | .00217 | .00244 | .00248 | .00176 | .00198 | .00201 |
| 12.000 | 5.00000 | 2114.90735 | 1250.43449 | 864.47287 | .00072 | .00067 | .00106 | .00059 | .00056 | .00268 |
| 14.000 | 5.00000 | 2115.76746 | 1250.94567 | 864.82088 | .00449 | .00261 | .00213 | .00382 | .00056 | .00181 |
| 16.000 | 5.00000 | 2115.76746 | 1250.94567 | 864.82088 | .00449 | .00261 | .00213 | .00382 | .00056 | .00181 |
| 18.000 | 5.00000 | 2108.11169 | 1246.37889 | 861.73282 | .00469 | .00237 | .00192 | .00408 | .00207 | .00168 |
| 20.000 | 5.00000 | 2109.97089 | 1247.37915 | 862.59174 | .00857 | .00569 | .00477 | .00766 | .00508 | .00427 |
| 22.000 | 5.00000 | 2116.70166 | 1251.42284 | 865.27884 | .01861 | .01248 | .01098 | .01716 | .01151 | .01313 |
| 24.000 | 5.00000 | 2116.70166 | 1251.42284 | 865.27884 | .01861 | .01248 | .01098 | .01716 | .01151 | .01313 |
| GRADIENT | .00000 | 1.40354 | .86562 | .59794 | .00045 | .00002 | .00000 | .00032 | .00002 | .00000 |

TABULATED DATA - OAI61 (ARC 11-97-87-094)

ARC 11-97-87-094 OAI61 ORBITER + RAKES

(FE7607) (08 AUG 76)

REFERENCE DATA

SPEF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = 5.0000 ELEVON = .000
ALLRON = .008 BOFLAP = -7.170

RNXL = 4.27 GRADIENT INTERVAL = -5.00 5.00

Table with columns: MACH, ALPHA, BETA, PT, P, OCOMP, DPT042, DPT092, DPT062, DPT044, DPT054, DPT054. Contains numerical data for various parameters across different Mach numbers.

RNXL = 4.25 GRADIENT INTERVAL = -5.00 5.00

Table with columns: MACH, ALPHA, BETA, PT, P, OCOMP, DPT042, DPT092, DPT062, DPT044, DPT054, DPT054. Contains numerical data for various parameters across different Mach numbers.

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PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2650.0100 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 985.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RNVL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.550 | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|---------|------------|------------|------------|----------|---------|---------|---------|---------|---------|
| ALPHA | 5.00000 | 1561.82259 | 396.376818 | 1032.75972 | -1.17486 | -1.5209 | -1.1719 | -1.2630 | -1.1057 | -1.0000 |
| .000 | 5.00000 | 1563.04628 | 386.65676 | 1033.56805 | -1.17561 | -1.5059 | -1.1591 | -1.2728 | -1.0978 | -0.9942 |
| 2.000 | 5.00000 | 1563.16922 | 386.66547 | 1033.59172 | -1.17003 | -1.4461 | -1.1264 | -1.2412 | -1.0619 | -0.9767 |
| 4.000 | 5.00000 | 1563.46520 | 385.74025 | 1033.78656 | -1.16090 | -1.4201 | -1.1270 | -1.1958 | -1.0509 | -0.9670 |
| 6.000 | 5.00000 | 1567.33949 | 397.71354 | 1036.32269 | -1.14799 | -1.3108 | -1.1677 | -1.1655 | -0.9325 | -0.8889 |
| 8.000 | 5.00000 | 1572.23886 | 398.95424 | 1038.56556 | -1.14866 | -1.3490 | -1.1897 | -1.1208 | -1.0111 | -0.9143 |
| 10.000 | 5.00000 | 1570.17735 | 398.42982 | 1038.18909 | -1.14500 | -1.3123 | -1.1984 | -1.1048 | -0.9296 | -0.8413 |
| 12.000 | 5.00000 | 1568.15354 | 397.92425 | 1036.87173 | -1.13782 | -1.2583 | -1.1784 | -1.0728 | -0.9218 | -0.8215 |
| 14.000 | 5.00000 | 1568.63318 | 398.03831 | 1037.16883 | -1.14035 | -1.2852 | -1.1693 | -1.1009 | -0.9217 | -0.8215 |
| 16.000 | 5.00000 | 1568.80566 | 398.07167 | 1037.25586 | -1.14150 | -1.2349 | -1.1433 | -1.1220 | -0.9217 | -0.8215 |
| 18.000 | 5.00000 | 1568.57487 | 398.12064 | 1037.39345 | -1.13873 | -1.1873 | -1.1078 | -1.1086 | -0.9217 | -0.8215 |
| 20.000 | 5.00000 | 1571.11673 | 398.66999 | 1038.91490 | -1.13673 | -1.1296 | -1.1449 | -1.1086 | -0.9217 | -0.8215 |
| 22.000 | 5.00000 | 1571.43858 | 398.73846 | 1038.99330 | -1.13983 | -1.3142 | -1.2336 | -1.1086 | -0.9217 | -0.8215 |
| 24.000 | 5.00000 | 1571.43858 | 398.73846 | 1038.99330 | -1.13983 | -1.3142 | -1.2336 | -1.1086 | -0.9217 | -0.8215 |
| GRADIENT | .00000 | .33655 | .07983 | .20800 | .00116 | .00187 | .00114 | .00054 | .00108 | .00080 |

RNVL = 7.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | DPT054 | DPT064 |
|--------------|---------|------------|-----------|------------|---------|---------|--------|---------|--------|--------|
| ALPHA | 5.00000 | 1655.65066 | 310.98268 | 1070.81854 | -3.3121 | -284.32 | -25333 | -24.736 | -21425 | -19183 |
| .000 | 5.00000 | 1655.87311 | 311.02239 | 1070.95529 | -3.2004 | -27921 | -24924 | -24.125 | -21289 | -19054 |
| 2.000 | 5.00000 | 1655.81648 | 311.01186 | 1070.91904 | -3.0517 | -27234 | -24449 | -23786 | -20719 | -18698 |
| 4.000 | 5.00000 | 1655.53960 | 311.14693 | 1071.38103 | -2.9264 | -26876 | -24200 | -23406 | -20658 | -18824 |
| 6.000 | 5.00000 | 1655.73843 | 310.99725 | 1070.86871 | -2.8264 | -25916 | -23612 | -22614 | -20146 | -18430 |
| 8.000 | 5.00000 | 1655.74200 | 310.99860 | 1070.87334 | -2.8841 | -25658 | -23234 | -22433 | -20057 | -18248 |
| 10.000 | 5.00000 | 1654.94193 | 310.82005 | 1070.25854 | -2.8015 | -25472 | -22962 | -22131 | -19716 | -18111 |
| 12.000 | 5.00000 | 1655.26360 | 311.09286 | 1071.19794 | -2.7846 | -25440 | -23274 | -21111 | -20216 | -18557 |
| 14.000 | 5.00000 | 1655.03857 | 311.05466 | 1071.06638 | -2.7501 | -25208 | -22956 | -21962 | -20205 | -18465 |
| 16.000 | 5.00000 | 1655.92122 | 310.85534 | 1070.38005 | -2.7181 | -25207 | -22840 | -21906 | -20377 | -18631 |
| 18.000 | 5.00000 | 1655.73504 | 310.79940 | 1070.18747 | -2.7496 | -25431 | -23311 | -22392 | -20773 | -19101 |
| 20.000 | 5.00000 | 1655.71509 | 310.98600 | 1070.82997 | -2.8042 | -25659 | -23809 | -23188 | -21446 | -19681 |
| 22.000 | 5.00000 | 1656.66179 | 311.16761 | 1071.45531 | -2.8371 | -26401 | -24376 | -23685 | -22100 | -20456 |
| 24.000 | 5.00000 | 1656.66179 | 311.16761 | 1071.45531 | -2.8371 | -26401 | -24376 | -23685 | -22100 | -20456 |
| GRADIENT | .00000 | .03946 | .00730 | .02512 | .00491 | .00298 | .00213 | .00238 | .00177 | .00121 |

(FE7C07) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.172

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.6000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RV/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | SPT054 | DPT054 |
|--------------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | 5.00000 | 1834.93884 | 234.25348 | 1087.03931 | -6.1734 | -5.1887 | -4.6011 | -4.7132 | -4.0193 | -3.5955 |
| .000 | 5.00000 | 1830.93913 | 233.75630 | 1084.73218 | -6.1135 | -5.1394 | -4.5413 | -4.6788 | -3.9900 | -3.5571 |
| 2.000 | 5.00000 | 1831.46227 | 233.83033 | 1085.07568 | -6.0103 | -5.1339 | -4.5235 | -4.6360 | -4.0101 | -3.5549 |
| 4.000 | 5.00000 | 1831.73577 | 233.86808 | 1085.25089 | -5.8416 | -4.9680 | -4.4177 | -4.5954 | -3.9365 | -3.5146 |
| 6.000 | 5.00000 | 1834.07381 | 234.17492 | 1086.67477 | -5.6202 | -4.8166 | -4.2992 | -4.4341 | -3.8418 | -3.4535 |
| 8.000 | 5.00000 | 1835.11595 | 234.42052 | 1087.81444 | -5.4253 | -4.7526 | -4.2255 | -4.3239 | -3.8216 | -3.4217 |
| 10.000 | 5.00000 | 1836.10439 | 234.41899 | 1087.80734 | -5.4028 | -4.6665 | -4.1842 | -4.3288 | -3.7749 | -3.4157 |
| 12.000 | 5.00000 | 1841.38952 | 235.10651 | 1090.99960 | -5.2333 | -4.6771 | -4.1919 | -4.2426 | -3.7172 | -3.4414 |
| 14.000 | 5.00000 | 1849.86311 | 236.19734 | 1096.05969 | -5.2183 | -4.6771 | -4.1919 | -4.2547 | -3.6243 | -3.4705 |
| 16.000 | 5.00000 | 1849.98158 | 235.21237 | 1096.15729 | -5.1642 | -4.7422 | -4.3354 | -4.3377 | -3.5237 | -3.4896 |
| 18.000 | 5.00000 | 1845.65546 | 235.66004 | 1093.56639 | -5.1642 | -4.6965 | -4.2793 | -4.2890 | -3.4210 | -3.5896 |
| 20.000 | 5.00000 | 1847.52986 | 235.89360 | 1094.95019 | -5.0321 | -4.6306 | -4.1706 | -4.2817 | -3.3107 | -3.5336 |
| 22.000 | 5.00000 | 1848.52892 | 235.04575 | 1095.35625 | -5.0321 | -4.5678 | -4.2104 | -4.3216 | -3.2884 | -3.6144 |
| 24.000 | 5.00000 | -1.85914 | -1.10579 | -1.49091 | -5.0048 | -5.0013 | -5.0019 | -5.0019 | -5.0023 | -5.0077 |
| GRADIENT | .00000 | | | | .00408 | .00137 | .00194 | .00193 | .00023 | .00077 |

RV/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT062 | DPT044 | SPT054 | DPT054 |
|--------------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | 5.00000 | 2059.36877 | 178.11419 | 1069.00958 | -9.6061 | -7.8115 | -6.8422 | -7.4259 | -6.1667 | -5.4642 |
| .000 | 5.00000 | 2058.48529 | 178.03863 | 1068.55612 | -9.5040 | -7.7524 | -6.8116 | -7.3903 | -6.1512 | -5.4645 |
| 2.000 | 5.00000 | 2059.33249 | 178.11115 | 1068.99139 | -9.4764 | -7.7675 | -6.7780 | -7.3821 | -6.1705 | -5.4468 |
| 4.000 | 5.00000 | 2059.45581 | 178.12163 | 1069.05426 | -9.1345 | -7.5472 | -6.6705 | -7.1576 | -6.0219 | -5.3766 |
| 6.000 | 5.00000 | 2058.44626 | 178.03483 | 1068.53333 | -8.7611 | -7.2839 | -6.4540 | -6.9584 | -5.8804 | -5.2591 |
| 8.000 | 5.00000 | 2059.21459 | 178.10055 | 1068.92778 | -8.5048 | -7.2216 | -6.4410 | -6.9557 | -5.9235 | -5.3073 |
| 10.000 | 5.00000 | 2058.73552 | 178.05887 | 1069.67758 | -8.3318 | -7.2253 | -6.4235 | -6.9059 | -5.9171 | -5.3171 |
| 12.000 | 5.00000 | 2058.33539 | 178.02526 | 1069.47466 | -8.1733 | -7.0253 | -6.2473 | -6.8030 | -5.8117 | -5.2098 |
| 14.000 | 5.00000 | 2059.73508 | 178.14466 | 1069.19247 | -8.2081 | -7.0775 | -6.3115 | -6.7456 | -5.8915 | -5.2950 |
| 16.000 | 5.00000 | 2058.78250 | 178.06276 | 1068.70093 | -8.0885 | -7.0641 | -6.3506 | -6.7068 | -5.9146 | -5.2950 |
| 18.000 | 5.00000 | 2059.63272 | 178.13587 | 1069.13973 | -7.9516 | -7.0373 | -6.3541 | -6.6647 | -5.9405 | -5.2977 |
| 20.000 | 5.00000 | 2058.93272 | 178.07758 | 1068.76992 | -7.9526 | -7.0601 | -6.3564 | -6.6678 | -5.9645 | -5.2922 |
| 22.000 | 5.00000 | 2058.71259 | 178.05685 | 1068.65347 | -8.1643 | -7.1811 | -6.4985 | -6.9295 | -6.1453 | -5.2934 |
| 24.000 | 5.00000 | -1.00997 | -1.00076 | -1.00455 | -8.0024 | -8.0011 | -8.0011 | -8.0011 | -8.0011 | -8.0011 |
| GRADIENT | .00000 | | | | .00324 | .00113 | .00161 | .00110 | .00010 | .00043 |

(FE7C07) (02 AUG. 75)

TABLATED DATA - ON161 (ARC 11-97-87-09H)

ARC 11-97-87-09H ON161 ORBITTER + RAKES

REFERENCE DATA

SREF = 2680.1000 SQ.FT. XMRP = 1078.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RVL = 2.00 GRADIENT INTERVAL = -5.00V 5.00

| MACH = 2.500 | BETA | PT | P | OCOMP | DPT062 | DPT064 | DPT066 | DPT068 | DPT070 | DPT072 | DPT074 | DPT076 | DPT078 | DPT080 |
|--------------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| ALPHA | 5.00000 | 1487.41808 | 86.98371 | 654.65117 | -1.15222 | -1.14709 | -1.13107 | -1.11555 | -1.09902 | -1.08250 | -1.06597 | -1.04945 | -1.03293 | -1.01641 |
| | .000 | 1487.53284 | 86.99042 | 654.70170 | -1.13713 | -1.13107 | -1.11555 | -1.09902 | -1.08250 | -1.06597 | -1.04945 | -1.03293 | -1.01641 | -1.00000 |
| | 2.000 | 1487.58736 | 86.99367 | 654.72614 | -1.12638 | -1.12032 | -1.10480 | -1.08928 | -1.07276 | -1.05624 | -1.03972 | -1.02320 | -1.00668 | -1.00000 |
| | 4.000 | 1487.59563 | 86.99354 | 654.72516 | -1.10775 | -1.10169 | -1.08617 | -1.07065 | -1.05413 | -1.03761 | -1.02109 | -1.00457 | -1.00000 | -1.00000 |
| | 6.000 | 1487.60651 | 86.99529 | 654.73832 | -1.0838 | -1.07774 | -1.06222 | -1.04670 | -1.03018 | -1.01366 | -0.99714 | -0.98062 | -0.96410 | -0.94758 |
| | 8.000 | 1487.62735 | 86.99730 | 654.75346 | -1.06074 | -1.05468 | -1.03916 | -1.02364 | -1.00712 | -0.99060 | -0.97408 | -0.95756 | -0.94104 | -0.92452 |
| | 10.000 | 1487.63515 | 86.99771 | 654.75650 | -1.04760 | -1.04154 | -1.02602 | -1.01050 | -0.99398 | -0.97746 | -0.96094 | -0.94442 | -0.92790 | -0.91138 |
| | 12.000 | 1487.64052 | 86.99771 | 654.75650 | -1.04378 | -1.03772 | -1.02220 | -1.00668 | -0.99016 | -0.97364 | -0.95712 | -0.94060 | -0.92408 | -0.90756 |
| | 14.000 | 1487.63156 | 86.99771 | 654.75650 | -1.04022 | -1.03416 | -1.01864 | -1.00312 | -0.98660 | -0.97008 | -0.95356 | -0.93704 | -0.92052 | -0.90400 |
| | 16.000 | 1487.64584 | 86.99899 | 654.76619 | -1.04110 | -1.03504 | -1.01952 | -1.00400 | -0.98748 | -0.97096 | -0.95444 | -0.93792 | -0.92140 | -0.90488 |
| | 18.000 | 1487.64584 | 86.99542 | 654.74694 | -1.04070 | -1.03464 | -1.01912 | -1.00360 | -0.98708 | -0.97056 | -0.95404 | -0.93752 | -0.92100 | -0.90448 |
| | 20.000 | 1487.6217 | 86.99581 | 654.74379 | -1.04265 | -1.03659 | -1.02107 | -1.00555 | -0.98903 | -0.97251 | -0.95599 | -0.93947 | -0.92295 | -0.90643 |
| | 22.000 | 1487.61295 | 86.99581 | 654.73773 | -1.04650 | -1.04045 | -1.02493 | -1.00941 | -0.99289 | -0.97637 | -0.95985 | -0.94333 | -0.92681 | -0.91029 |
| | 24.000 | 1487.57964 | 86.99521 | 654.73773 | -1.05319 | -1.04714 | -1.03162 | -1.01610 | -1.00058 | -0.98406 | -0.96754 | -0.95102 | -0.93450 | -0.91798 |
| GRADIENT | .00000 | .04233 | .00249 | .01874 | .01103 | .00646 | .00349 | .00192 | .00096 | .00049 | .00025 | .00012 | .00006 | .00003 |

RM/L = 1.93 GRADIENT INTERVAL = -5.00V 5.00

MACH = 3.000

| ALPHA | BETA | PT | P | OCOMP | DPT052 | DPT054 | DPT056 | DPT058 | DPT060 | DPT062 | DPT064 | DPT066 | DPT068 | DPT070 |
|----------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 5.00000 | 1938.46461 | 51.12882 | 565.46770 | -2.16978 | -2.16372 | -2.14766 | -2.13160 | -2.11554 | -2.09948 | -2.08342 | -2.06736 | -2.05130 | -2.03524 |
| | 2.000 | 1937.72349 | 51.07815 | 564.97363 | -2.13938 | -2.13332 | -2.11726 | -2.10120 | -2.08514 | -2.06908 | -2.05302 | -2.03696 | -2.02090 | -2.00484 |
| | 4.000 | 1938.05081 | 51.09625 | 565.06321 | -2.12229 | -2.11623 | -2.09917 | -2.08211 | -2.06505 | -2.04899 | -2.03293 | -2.01687 | -2.00081 | -1.98475 |
| | 6.000 | 1938.52211 | 51.09901 | 565.20436 | -2.09759 | -2.09153 | -2.07447 | -2.05741 | -2.04035 | -2.02329 | -2.00623 | -1.98917 | -1.97211 | -1.95505 |
| | 8.000 | 1938.14912 | 51.09524 | 565.16261 | -2.04957 | -2.04351 | -2.02645 | -2.00939 | -1.99233 | -1.97527 | -1.95821 | -1.94115 | -1.92409 | -1.90703 |
| | 10.000 | 1938.11229 | 51.09643 | 565.17573 | -2.03165 | -2.02559 | -2.00853 | -1.99147 | -1.97441 | -1.95735 | -1.94029 | -1.92323 | -1.90617 | -1.88911 |
| | 12.000 | 1937.93176 | 51.09222 | 565.24744 | -2.01199 | -2.00593 | -1.98887 | -1.97181 | -1.95475 | -1.93769 | -1.92063 | -1.90357 | -1.88651 | -1.86945 |
| | 14.000 | 1938.21223 | 51.10291 | 565.27744 | -2.01199 | -2.00593 | -1.98887 | -1.97181 | -1.95475 | -1.93769 | -1.92063 | -1.90357 | -1.88651 | -1.86945 |
| | 16.000 | 1938.80711 | 51.12403 | 565.48102 | -1.98580 | -1.97974 | -1.96268 | -1.94562 | -1.92856 | -1.91150 | -1.89444 | -1.87738 | -1.86032 | -1.84326 |
| | 18.000 | 1938.64461 | 51.12433 | 565.48442 | -1.97775 | -1.97169 | -1.95463 | -1.93757 | -1.92051 | -1.90345 | -1.88639 | -1.86933 | -1.85227 | -1.83521 |
| | 20.000 | 1938.51358 | 51.11730 | 565.40661 | -1.97775 | -1.97169 | -1.95463 | -1.93757 | -1.92051 | -1.90345 | -1.88639 | -1.86933 | -1.85227 | -1.83521 |
| | 22.000 | 1938.89377 | 51.12642 | 565.50747 | -1.98639 | -1.98033 | -1.96327 | -1.94621 | -1.92915 | -1.91209 | -1.89503 | -1.87797 | -1.86091 | -1.84385 |
| | 24.000 | 1938.09142 | 51.11131 | 565.34034 | -2.00949 | -2.00343 | -1.98637 | -1.96931 | -1.95225 | -1.93519 | -1.91813 | -1.90107 | -1.88401 | -1.86695 |
| GRADIENT | .00000 | .36345 | .00814 | .10112 | .01187 | .00740 | .00443 | .00246 | .00149 | .00096 | .00059 | .00032 | .00016 | .00008 |

(FF7C07) (02 AUG 76)

TABLATED DATA - 0M161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RVL = 1.99 GRADIENT INTERVAL = -5.00/ 5.30

| MACH = 3.508 | BETA | PT | P | OCOMP | DPT042 | DPT052 | DPT044 | DPT054 | DPT064 |
|--------------|---------|------------|----------|-----------|----------|----------|----------|----------|----------|
| ALPHA .000 | 5.00000 | 2683.02945 | 35.14780 | 535.72283 | -4.99942 | -3.67133 | -4.01166 | -3.08071 | -2.88664 |
| 2.000 | 5.00000 | 2682.78683 | 35.14482 | 535.67736 | -4.98060 | -3.63698 | -4.00699 | -3.05043 | -2.85891 |
| 4.000 | 5.00000 | 2680.96332 | 35.12155 | 535.32265 | -4.86948 | -3.58239 | -3.94394 | -3.02768 | -2.83131 |
| 6.000 | 5.00000 | 2680.66059 | 35.14306 | 535.65052 | -4.73667 | -3.53355 | -3.86231 | -2.99732 | -2.81541 |
| 8.000 | 5.00000 | 2680.66055 | 35.11761 | 535.26256 | -4.57988 | -3.48186 | -3.76377 | -2.96539 | -2.59315 |
| 10.000 | 5.00000 | 2682.31409 | 35.13848 | 535.58065 | -4.36267 | -3.42729 | -3.62637 | -2.93327 | -2.57605 |
| 12.000 | 5.00000 | 2680.79922 | 35.11946 | 535.29087 | -4.23925 | -3.39616 | -3.50157 | -2.92276 | -2.55576 |
| 14.000 | 5.00000 | 2681.94269 | 35.13391 | 535.51109 | -4.14974 | -3.36435 | -3.47999 | -2.90813 | -2.55231 |
| 16.000 | 5.00000 | 2680.82974 | 35.11878 | 535.28040 | -4.07993 | -3.33992 | -3.47428 | -2.90677 | -2.55112 |
| 18.000 | 5.00000 | 2680.17957 | 35.11156 | 535.17036 | -4.05571 | -3.35466 | -3.47881 | -2.93202 | -2.58628 |
| 20.000 | 5.00000 | 2682.18320 | 35.13710 | 535.55972 | -4.03826 | -3.35668 | -3.47681 | -2.94505 | -2.58532 |
| 22.000 | 5.00000 | 2682.18320 | 35.11565 | 535.23274 | -4.07516 | -3.39001 | -3.52534 | -2.98704 | -2.62514 |
| 24.000 | 5.00000 | 2680.41901 | 35.11479 | 535.21957 | -4.13220 | -3.44384 | -3.59362 | -3.04826 | -2.69178 |
| GRADIENT | .00000 | -.51654 | -.00656 | -.10005 | .03248 | .02224 | .01693 | .01366 | .01369 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|-------|--------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.200 | .000 | -5.00000 | 2008.91339 | 828.82202 | 1165.56822 | .22685 | .22714 | .22709 | .05497 | .05503 | .05502 |
| | 2.000 | -5.00000 | 2009.58676 | 828.57557 | 1166.22134 | .22025 | .22037 | .22026 | .06782 | .06794 | .06788 |
| | 4.000 | -5.00000 | 2012.39209 | 829.41618 | 1167.40450 | .21233 | .21222 | .21239 | .07699 | .07694 | .07700 |
| | 6.000 | -5.00000 | 2007.39058 | 828.01813 | 1165.43674 | .20839 | .20830 | .20830 | .08121 | .08119 | .08117 |
| | 8.000 | -5.00000 | 2005.18105 | 827.76498 | 1165.08044 | .19786 | .19805 | .19806 | .08528 | .08534 | .08534 |
| | 10.000 | -5.00000 | 1999.63934 | 826.38300 | 1163.13528 | .18730 | .18784 | .18802 | .02901 | .02908 | .02911 |
| | 12.000 | -5.00000 | 2001.45516 | 826.74883 | 1163.65021 | .16938 | .17009 | .17030 | .01005 | .01009 | .01009 |
| | 14.000 | -5.00000 | 2001.92822 | 826.64798 | 1163.50826 | .14980 | .15061 | .15041 | -.00420 | .00522 | .00522 |
| | 16.000 | -5.00000 | 1993.43224 | 826.30900 | 1163.03114 | .13221 | .13303 | .13265 | -.01614 | -.01623 | -.01620 |
| | 18.000 | -5.00000 | 2003.10529 | 827.20448 | 1163.29153 | .11055 | .11122 | .11105 | -.02374 | -.02367 | -.02384 |
| | 20.000 | -5.00000 | 2000.66002 | 826.62385 | 1163.47430 | .08940 | .08993 | .08980 | -.03159 | -.03171 | -.03164 |
| | 22.000 | -5.00000 | 1936.12405 | 825.65847 | 1162.11552 | .07196 | .07223 | .07209 | -.04092 | -.04099 | -.04097 |
| | 24.000 | -5.00000 | 1995.54181 | 825.41649 | 1161.77493 | .05203 | .05213 | .05197 | -.00550 | -.00548 | .00549 |
| | | .00000 | .86967 | .14854 | .20908 | -.00363 | -.00373 | -.00368 | | | |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|-------|--------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | -5.00000 | 1578.31139 | 400.01855 | 1042.32884 | .23238 | .22936 | .22635 | .00538 | .00533 | .00527 |
| | 2.000 | -5.00000 | 1578.99117 | 400.18729 | 1042.76864 | .22427 | .22145 | .21851 | .00845 | .00838 | .00827 |
| | 4.000 | -5.00000 | 1577.32025 | 399.78399 | 1041.71767 | .21913 | .21650 | .21375 | .01105 | .01094 | .01083 |
| | 6.000 | -5.00000 | 1577.34309 | 399.79176 | 1041.73790 | .21026 | .20769 | .20479 | .01145 | .01133 | .01120 |
| | 8.000 | -5.00000 | 1578.35884 | 400.03287 | 1042.36615 | .20561 | .20198 | .19891 | .01384 | .01373 | .01356 |
| | 10.000 | -5.00000 | 1575.77299 | 399.39394 | 1040.70128 | .19981 | .19530 | .19215 | .01646 | .01614 | .01582 |
| | 12.000 | -5.00000 | 1575.64394 | 399.36981 | 1040.63941 | .18622 | .18320 | .18103 | .01538 | .01524 | .01509 |
| | 14.000 | -5.00000 | 1575.95380 | 399.44687 | 1040.83922 | .17306 | .17075 | .16864 | .01560 | .01542 | .01525 |
| | 16.000 | -5.00000 | 1575.97449 | 399.45256 | 1040.85405 | .16443 | .16247 | .16012 | .01200 | .01181 | .01166 |
| | 18.000 | -5.00000 | 1576.27603 | 399.52647 | 1041.04663 | .15512 | .15218 | .15013 | .00731 | .00719 | .00710 |
| | 20.000 | -5.00000 | 1575.81870 | 399.41241 | 1040.74942 | .14243 | .13952 | .13752 | -.00179 | -.00176 | -.00174 |
| | 22.000 | -5.00000 | 1575.80544 | 399.41526 | 1040.75685 | .13413 | .13116 | .12915 | -.01291 | -.01266 | -.01249 |
| | 24.000 | -5.00000 | 1576.42549 | 399.57412 | 1041.17078 | .12539 | .12260 | .12081 | -.01919 | -.01881 | -.01857 |
| | | .00000 | -.24779 | -.05863 | -.15279 | -.00331 | -.00322 | -.00315 | .00142 | .00140 | .00139 |

(FE7003) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-87-89*)
ARC 11-87-87-09* 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -5.000 ELEVOM = .000
AILLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.680 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

MACH = 1.750
ALPHA = .000
2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
18.000
20.000
22.000
24.000
GRADIENT

| MACH | ALPHA | BETA | PT | P | OCOMP | DP042 | DP062 | DP044 | DP054 | DP064 |
|----------|-------|----------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 1.750 | .000 | -5.00000 | 1643.42418 | 309.79275 | 1066.72121 | .27177 | .25492 | .02812 | .02741 | .02669 |
| 2.000 | .000 | -5.00000 | 1650.93587 | 310.08348 | 1067.72229 | .26363 | .24846 | .03108 | .03032 | .02961 |
| 4.000 | .000 | -5.00000 | 1650.24094 | 309.94633 | 1067.25003 | .25908 | .24434 | .03396 | .03325 | .03188 |
| 6.000 | .000 | -5.00000 | 1649.94432 | 309.89394 | 1067.06963 | .25358 | .24000 | .03470 | .03396 | .03318 |
| 8.000 | .000 | -5.00000 | 1650.82304 | 310.06269 | 1067.65071 | .25094 | .23792 | .03788 | .03669 | .03584 |
| 10.000 | .000 | -5.00000 | 1650.44762 | 309.98747 | 1067.39171 | .24440 | .22876 | .03665 | .03736 | .03665 |
| 12.000 | .000 | -5.00000 | 1651.41377 | 310.17471 | 1068.03642 | .23112 | .21970 | .03458 | .03458 | .03384 |
| 14.000 | .000 | -5.00000 | 1651.02856 | 310.09678 | 1067.76807 | .21842 | .20798 | .03114 | .03049 | .02987 |
| 16.000 | .000 | -5.00000 | 1650.14075 | 309.92978 | 1067.19304 | .21466 | .20409 | .02957 | .02873 | .02816 |
| 18.000 | .000 | -5.00000 | 1650.84254 | 310.06318 | 1067.65276 | .20676 | .19490 | .02409 | .02338 | .02290 |
| 20.000 | .000 | -5.00000 | 1651.38724 | 310.16493 | 1068.00276 | .19666 | .18490 | .01743 | .01680 | .01655 |
| 22.000 | .000 | -5.00000 | 1651.58163 | 310.20011 | 1068.12389 | .18448 | .17392 | .01357 | .01317 | .01290 |
| 24.000 | .000 | -5.00000 | 1651.20419 | 310.20077 | 1068.12617 | .17335 | .16391 | .00655 | .00648 | .00634 |
| GRADIENT | | .00000 | .20419 | .03840 | .13221 | -.00317 | -.00265 | .00134 | .00131 | .00130 |

MACH = 2.000
ALPHA = .000
2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
18.000
20.000
22.000
24.000
GRADIENT

| MACH | ALPHA | BETA | PT | P | OCOMP | DP042 | DP062 | DP044 | DP054 | DP064 |
|----------|-------|----------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 2.000 | .000 | -5.00000 | 1647.06216 | 235.97826 | 1095.04305 | .25939 | .23206 | .02626 | .02498 | .02392 |
| 4.000 | .000 | -5.00000 | 1648.00623 | 236.10478 | 1095.63014 | .24089 | .22961 | .03067 | .02926 | .02811 |
| 6.000 | .000 | -5.00000 | 1647.42177 | 236.02850 | 1095.27618 | .23472 | .22428 | .03345 | .03186 | .03066 |
| 8.000 | .000 | -5.00000 | 1646.95721 | 235.96262 | 1094.97044 | .24342 | .23050 | .03482 | .03327 | .03211 |
| 10.000 | .000 | -5.00000 | 1646.48546 | 235.96757 | 1094.99344 | .23635 | .22315 | .03615 | .03444 | .03322 |
| 12.000 | .000 | -5.00000 | 1646.51515 | 235.89915 | 1094.67596 | .23131 | .21381 | .03746 | .03562 | .03445 |
| 14.000 | .000 | -5.00000 | 1646.62762 | 235.90250 | 1094.69148 | .22249 | .20392 | .03346 | .03206 | .03106 |
| 16.000 | .000 | -5.00000 | 1646.65921 | 235.91658 | 1094.75682 | .21541 | .20052 | .02965 | .02865 | .02766 |
| 18.000 | .000 | -5.00000 | 1646.35066 | 235.23774 | 1094.39096 | .20511 | .18889 | .02798 | .02642 | .02570 |
| 20.000 | .000 | -5.00000 | 1646.96519 | 235.87904 | 1094.59261 | .19953 | .18282 | .02557 | .02441 | .02372 |
| 22.000 | .000 | -5.00000 | 1646.96519 | 235.94551 | 1094.89108 | .18231 | .17632 | .02289 | .02190 | .02124 |
| 24.000 | .000 | -5.00000 | 1647.29576 | 235.96882 | 1095.03203 | .18321 | .16812 | .02466 | .02168 | .02103 |
| GRADIENT | | .00000 | .08990 | .01256 | .05829 | -.00262 | -.00193 | .00146 | .00147 | .00167 |

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OF POOR QUALITY

REFERENCE DATA
 SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -5.0000 ELEVON = .000
 ALLRON = .000 BDFLAP = -7.170

MACH = 2.258
 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP064 | DP065 | DP066 |
|----------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| .000 | -5.00000 | 2051.52133 | 177.43511 | 1064.93391 | .24484 | .28257 | .20785 | -.02618 | .02412 | .02283 |
| 2.000 | -5.00000 | 2050.73444 | 177.36766 | 1064.52988 | .24095 | .21820 | .20488 | .02874 | .02637 | .02508 |
| 4.000 | -5.00000 | 2050.90634 | 177.38244 | 1064.61781 | .23661 | .21607 | .20242 | .03056 | .02817 | .02684 |
| 6.000 | -5.00000 | 2050.73029 | 177.36738 | 1064.52737 | .22963 | .21173 | .19897 | .03076 | .02841 | .02728 |
| 8.000 | -5.00000 | 2051.17938 | 177.40587 | 1064.75842 | .22202 | .20581 | .19431 | .03031 | .02841 | .02785 |
| 10.000 | -5.00000 | 2051.78479 | 177.45775 | 1065.06981 | .21725 | .20581 | .19067 | .02915 | .02737 | .02607 |
| 12.000 | -5.00000 | 2052.43539 | 177.51383 | 1065.40637 | .20973 | .19476 | .18496 | .02852 | .02668 | .02571 |
| 14.000 | -5.00000 | 2054.13220 | 177.65454 | 1066.25092 | .20220 | .18942 | .18057 | .02870 | .02713 | .02583 |
| 16.000 | -5.00000 | 2055.24664 | 177.75452 | 1066.85094 | .19465 | .18421 | .17531 | .02531 | .02374 | .02215 |
| 18.000 | -5.00000 | 2055.90338 | 177.81194 | 1067.19557 | .18486 | .17314 | .16500 | .02324 | .02102 | .02015 |
| 20.000 | -5.00000 | 2055.49189 | 177.77671 | 1066.98186 | .18071 | .16864 | .16077 | .02321 | .02421 | .02321 |
| 22.000 | -5.00000 | 2055.35656 | 177.76571 | 1066.91809 | .14341 | .13405 | .12788 | -.00487 | -.00458 | -.00440 |
| 24.000 | -5.00000 | 2056.58188 | 177.86968 | 1067.54214 | -.00221 | -.00163 | -.00136 | -.00109 | -.00105 | -.00100 |
| GRADIENT | .00000 | -.15373 | -.01317 | -.07902 | -.00168 | -.00131 | -.00114 | -.00095 | -.00095 | -.00092 |

MACH = 2.500
 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP064 | DP065 | DP066 |
|----------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| .000 | -5.00000 | 1498.56390 | 87.64465 | 658.62552 | .23409 | .28749 | .19024 | .02189 | .01979 | .01838 |
| 2.000 | -5.00000 | 1497.87276 | 87.60338 | 659.31491 | .23250 | .20645 | .18854 | .02429 | .02196 | .02033 |
| 4.000 | -5.00000 | 1497.09436 | 87.55775 | 658.97150 | .22735 | .20226 | .18562 | .02570 | .02329 | .02166 |
| 6.000 | -5.00000 | 1497.75047 | 87.59612 | 659.26024 | .22022 | .19720 | .18171 | .02651 | .02414 | .02250 |
| 8.000 | -5.00000 | 1497.84230 | 87.60144 | 659.30032 | .21265 | .19174 | .17627 | .02584 | .02365 | .02221 |
| 10.000 | -5.00000 | 1497.81511 | 87.59991 | 659.28885 | .20529 | .18502 | .17266 | .02413 | .02222 | .02092 |
| 12.000 | -5.00000 | 1497.81754 | 87.59968 | 659.28853 | .19847 | .18502 | .17500 | .02727 | .02517 | .02377 |
| 14.000 | -5.00000 | 1497.78598 | 87.59764 | 659.27163 | .19375 | .18206 | .17123 | .02493 | .02305 | .02148 |
| 16.000 | -5.00000 | 1497.77367 | 87.59656 | 659.26370 | .18577 | .17790 | .16715 | .02163 | .02009 | .01904 |
| 18.000 | -5.00000 | 1497.77548 | 87.59658 | 659.26370 | .17936 | .16477 | .15530 | .01780 | .01653 | .01570 |
| 20.000 | -5.00000 | 1497.79367 | 87.59782 | 659.27309 | .17319 | .16477 | .15530 | .01780 | .01653 | .01570 |
| 22.000 | -5.00000 | 1497.81293 | 87.59903 | 659.28218 | .17132 | .15976 | .14984 | .01636 | .01520 | .01441 |
| 24.000 | -5.00000 | 1497.82395 | 87.59926 | 659.28389 | -.00168 | .15716 | .14820 | .01518 | .01413 | .01338 |
| GRADIENT | .00000 | -.36739 | -.02172 | -.16350 | -.00168 | -.00131 | -.00114 | -.00095 | -.00095 | -.00092 |

TABULATED DATA - 0A161 (ARC 11-97-87-894)
ARC 11-97-87-099 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0800 IN. ZO
SCALE = .0300

RM/L = 1.93 GRADIENT INTERVAL = -5.004 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|--------------|----------|------------|----------|-----------|--------|--------|--------|--------|--------|--------|--------|
| .000 | -5.00000 | 1935.56339 | 51.10074 | 565.26348 | .26423 | .21869 | .19131 | .02843 | .02431 | .02431 | .02170 |
| 2.000 | -5.00000 | 1935.15036 | 51.09178 | 565.12432 | .25937 | .21535 | .18800 | .02849 | .02441 | .02441 | .02174 |
| 4.000 | -5.00000 | 1936.07675 | 51.11387 | 565.35989 | .25216 | .21035 | .18525 | .03128 | .02689 | .02689 | .02411 |
| 6.000 | -5.00000 | 1936.50783 | 51.12482 | 565.48977 | .23951 | .20176 | .17866 | .02722 | .02357 | .02357 | .02123 |
| 8.000 | -5.00000 | 1936.47981 | 51.12367 | 565.47603 | .22810 | .19486 | .17470 | .02580 | .02258 | .02258 | .02055 |
| 10.000 | -5.00000 | 1936.30977 | 51.12127 | 565.45055 | .21802 | .18792 | .16981 | .02565 | .02260 | .02260 | .02070 |
| 12.000 | -5.00000 | 1935.00462 | 51.11145 | 565.34191 | .18322 | .16677 | .16517 | .02529 | .02240 | .02240 | .02059 |
| 14.000 | -5.00000 | 1935.75789 | 51.09733 | 565.18374 | .20816 | .18177 | .16109 | .02525 | .02239 | .02239 | .02139 |
| 16.000 | -5.00000 | 1935.34929 | 51.08156 | 565.01133 | .20138 | .17675 | .16109 | .02568 | .02270 | .02270 | .01878 |
| 18.000 | -5.00000 | 1935.29300 | 51.07934 | 564.98677 | .19196 | .16865 | .15439 | .02270 | .02029 | .02029 | .01999 |
| 20.000 | -5.00000 | 1934.35158 | 51.05967 | 564.76923 | .19066 | .16779 | .15353 | .02244 | .02016 | .02016 | .01861 |
| 22.000 | -5.00000 | 1934.81860 | 51.07553 | 564.94459 | .18559 | .16395 | .15007 | .02241 | .02012 | .02012 | .01861 |
| 24.000 | -5.00000 | 1934.05580 | 51.04761 | 564.63582 | .18838 | .16196 | .14828 | .02241 | .02012 | .02012 | .01861 |
| GRADIENT | .00000 | .12834 | .00308 | .03410 | .00502 | .00219 | .00151 | .04071 | .04064 | .04064 | .00060 |

RM/L = 1.99 GRADIENT INTERVAL = -5.004 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|--------------|----------|------------|----------|-----------|--------|--------|--------|--------|--------|--------|--------|
| .000 | -5.00000 | 2547.37308 | 33.36888 | 508.60840 | .31648 | .24831 | .20921 | .04339 | .04339 | .04339 | .03079 |
| 2.000 | -5.00000 | 2547.81790 | 33.37489 | 508.70000 | .31156 | .24414 | .20596 | .04487 | .04487 | .04487 | .03186 |
| 4.000 | -5.00000 | 2546.94196 | 33.36394 | 508.53317 | .29602 | .23487 | .19941 | .04318 | .04318 | .04318 | .03090 |
| 6.000 | -5.00000 | 2547.50006 | 33.37128 | 508.64510 | .28932 | .23073 | .19821 | .04543 | .04543 | .04543 | .03310 |
| 8.000 | -5.00000 | 2547.17203 | 33.36798 | 508.58098 | .26715 | .21756 | .18966 | .04038 | .04038 | .04038 | .03023 |
| 10.000 | -5.00000 | 2551.36157 | 33.42099 | 509.40276 | .25887 | .21203 | .18565 | .04127 | .04127 | .04127 | .03131 |
| 12.000 | -5.00000 | 2555.54724 | 33.47640 | 510.24735 | .24554 | .20509 | .18072 | .03953 | .03953 | .03953 | .02956 |
| 14.000 | -5.00000 | 2558.82321 | 33.51909 | 510.89791 | .19950 | .18072 | .17673 | .04035 | .04035 | .04035 | .03136 |
| 16.000 | -5.00000 | 2563.66443 | 33.58292 | 511.87092 | .19403 | .19403 | .17473 | .04184 | .04184 | .04184 | .03249 |
| 18.000 | -5.00000 | 2567.71115 | 33.63562 | 512.67409 | .22472 | .19032 | .16957 | .04277 | .04277 | .04277 | .02942 |
| 20.000 | -5.00000 | 2572.38071 | 33.69739 | 513.61582 | .21482 | .18298 | .16347 | .04046 | .04046 | .04046 | .03198 |
| 22.000 | -5.00000 | 2578.11011 | 33.77192 | 514.75153 | .18541 | .18541 | .16383 | .03522 | .03522 | .03522 | .02586 |
| 24.000 | -5.00000 | 2578.93777 | 33.78332 | 514.92529 | .20914 | .17936 | .16061 | .02849 | .02849 | .02849 | .02586 |
| GRADIENT | .00000 | -.10779 | -.00123 | -.01880 | .00461 | .00336 | .00245 | .00003 | .00003 | .00003 | .00073 |

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

(FE7004) (02 AUG 76)

TABLATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YC
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -2.000 ELEVON = .000
ALFRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | RT | P | OCOMP | DP042 | DP062 | DP082 | DP044 | DP054 | DP064 |
|----------|--------|----------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 1.550 | .000 | -2.00000 | 1574.43616 | 398.83038 | 1039.23260 | .31177 | .31777 | .31177 | .03112 | .03075 | .03039 |
| 2.000 | 2.000 | -2.00000 | 1573.92516 | 398.70513 | 1038.90645 | .30819 | .29938 | .30819 | .03488 | .03449 | .03409 |
| 4.000 | 4.000 | -2.00000 | 1573.05887 | 398.48754 | 1038.32949 | .30127 | .29692 | .30127 | .03970 | .03863 | .03829 |
| 6.000 | 6.000 | -2.00000 | 1573.57761 | 398.62070 | 1038.68846 | .28714 | .28714 | .29188 | .04128 | .04083 | .04043 |
| 8.000 | 8.000 | -2.00000 | 1574.31830 | 399.81203 | 1039.18500 | .28170 | .28170 | .28131 | .04136 | .04136 | .04136 |
| 10.000 | 10.000 | -2.00000 | 1574.64356 | 398.88485 | 1039.37476 | .27383 | .27383 | .27872 | .04167 | .04328 | .04396 |
| 12.000 | 12.000 | -2.00000 | 1574.84332 | 398.97706 | 1039.51079 | .26151 | .26151 | .26607 | .04445 | .04604 | .04545 |
| 14.000 | 14.000 | -2.00000 | 1574.59084 | 398.87534 | 1039.34988 | .25702 | .25702 | .26118 | .04512 | .04480 | .04437 |
| 16.000 | 16.000 | -2.00000 | 1575.31898 | 399.06065 | 1039.83284 | .23382 | .23382 | .23142 | .04404 | .04353 | .04325 |
| 18.000 | 18.000 | -2.00000 | 1575.34929 | 399.06569 | 1039.84996 | .21262 | .21262 | .21262 | .04052 | .03998 | .03956 |
| 20.000 | 20.000 | -2.00000 | 1574.16409 | 398.76549 | 1039.06374 | .20868 | .20868 | .20868 | .03273 | .03221 | .03182 |
| 22.000 | 22.000 | -2.00000 | 1574.15881 | 398.76766 | 1039.06938 | .19736 | .19736 | .19736 | .02734 | .02685 | .02661 |
| 24.000 | 24.000 | -2.00000 | 1574.84804 | 398.94400 | 1039.52890 | .18660 | .18660 | .18945 | .02098 | .02062 | .02038 |
| GRADIENT | | .00000 | -.34433 | -.08569 | -.22328 | -.00371 | -.00371 | -.00371 | .00200 | .00197 | .00198 |

RN/L = 3.04 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | RT | P | OCOMP | DP042 | DP062 | DP082 | DP044 | DP054 | DP064 |
|----------|--------|----------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 1.750 | .000 | -2.00000 | 1650.94153 | 310.07685 | 1067.69846 | .34177 | .33862 | .34177 | .05978 | .05823 | .05684 |
| 2.000 | 2.000 | -2.00000 | 1652.84775 | 310.44413 | 1068.98416 | .33378 | .32303 | .33378 | .06300 | .06137 | .05997 |
| 4.000 | 4.000 | -2.00000 | 1653.89585 | 310.63168 | 1069.60992 | .33041 | .32067 | .33041 | .06329 | .06179 | .06039 |
| 6.000 | 6.000 | -2.00000 | 1654.38229 | 310.72412 | 1069.92824 | .32423 | .31534 | .32423 | .06357 | .06216 | .06080 |
| 8.000 | 8.000 | -2.00000 | 1653.79941 | 310.62024 | 1069.57295 | .31802 | .30951 | .31802 | .06524 | .06384 | .06233 |
| 10.000 | 10.000 | -2.00000 | 1654.31114 | 310.72391 | 1069.92749 | .31330 | .30215 | .31330 | .06571 | .06427 | .06283 |
| 12.000 | 12.000 | -2.00000 | 1655.30227 | 310.90964 | 1070.56715 | .30224 | .28909 | .30224 | .06803 | .06593 | .06454 |
| 14.000 | 14.000 | -2.00000 | 1655.65390 | 310.97399 | 1070.78859 | .28508 | .27985 | .28508 | .06302 | .06191 | .06083 |
| 16.000 | 16.000 | -2.00000 | 1654.93356 | 310.83946 | 1070.32539 | .27553 | .26980 | .27553 | .06600 | .05896 | .05797 |
| 18.000 | 18.000 | -2.00000 | 1655.58514 | 310.96767 | 1070.76688 | .25842 | .25116 | .25842 | .05800 | .05748 | .05648 |
| 20.000 | 20.000 | -2.00000 | 1657.05319 | 311.24283 | 1071.71434 | .24727 | .24197 | .24727 | .05765 | .05603 | .05531 |
| 22.000 | 22.000 | -2.00000 | 1657.68335 | 311.35872 | 1072.11337 | .23215 | .22686 | .23215 | .05514 | .05370 | .05266 |
| 24.000 | 24.000 | -2.00000 | 1657.51353 | 311.32766 | 1072.00642 | .22433 | .21988 | .22433 | .05186 | .05057 | .04958 |
| GRADIENT | | .00000 | .13871 | .47761 | .47761 | -.00249 | -.00249 | -.00249 | .00088 | .00089 | .00088 |

TABULATED DATA - 0A161 (ARC 11-97-87-894)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

(FE7604) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.170

REFERENCE DATA:

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RV/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | F | OCOMP | DPOW2 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|----------|--------|----------|------------|-----------|------------|---------|---------|---------|-------|-------|-------|
| 2.000 | 2.000 | -2.00000 | 1846.93443 | 235.90358 | 1094.69649 | 32469 | 30527 | 29009 | 05542 | 05274 | 05064 |
| 2.000 | 2.000 | -2.00000 | 1846.41615 | 235.83478 | 1094.37723 | 31830 | 29318 | 28518 | 05801 | 05518 | 05306 |
| 4.000 | 4.000 | -2.00000 | 1846.47842 | 235.84348 | 1094.41763 | 30803 | 29181 | 27788 | 06138 | 05868 | 05627 |
| 6.000 | 6.000 | -2.00000 | 1847.01898 | 235.91540 | 1094.75133 | 30150 | 28471 | 27262 | 06203 | 05918 | 05710 |
| 8.000 | 8.000 | -2.00000 | 1846.99838 | 235.91268 | 1094.73875 | 29192 | 27678 | 26595 | 06269 | 06099 | 05882 |
| 10.000 | 10.000 | -2.00000 | 1846.95099 | 235.91120 | 1094.73169 | 28328 | 26833 | 25865 | 06305 | 06036 | 05828 |
| 12.000 | 12.000 | -2.00000 | 1846.64996 | 235.86971 | 1094.53934 | 27840 | 26242 | 25296 | 06230 | 05938 | 05749 |
| 14.000 | 14.000 | -2.00000 | 1846.59160 | 235.85966 | 1094.49269 | 26498 | 24486 | 24401 | 05773 | 05563 | 05401 |
| 16.000 | 16.000 | -2.00000 | 1847.17949 | 235.94132 | 1094.87161 | 25400 | 23598 | 22905 | 05569 | 05363 | 05261 |
| 18.000 | 18.000 | -2.00000 | 1846.84877 | 235.89649 | 1094.66362 | 24779 | 23630 | 22905 | 05478 | 05261 | 05108 |
| 20.000 | 20.000 | -2.00000 | 1846.91461 | 235.88847 | 1094.62637 | 23996 | 22833 | 22114 | 05478 | 05261 | 05108 |
| 22.000 | 22.000 | -2.00000 | 1847.35541 | 235.95847 | 1094.95123 | 23142 | 22070 | 21342 | 05551 | 05330 | 05177 |
| 24.000 | 24.000 | -2.00000 | 1846.02296 | 235.78710 | 1094.15599 | 21384 | 20427 | 19802 | 05179 | 04975 | 04842 |
| GRADIENT | | .00000 | -.11399 | -.01502 | -.06971 | -.00391 | -.00336 | -.00385 | 00149 | 00146 | 00141 |

RV/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | F | OCOMP | DFO42 | DFO52 | DFO62 | DPO44 | DPO54 | DPO64 |
|----------|--------|----------|------------|-----------|------------|---------|---------|---------|-------|-------|-------|
| 2.250 | 2.000 | -2.00000 | 2060.32037 | 178.19294 | 1069.48225 | 26598 | 24099 | 22593 | 04349 | 03979 | 03769 |
| 2.000 | 2.000 | -2.00000 | 2059.98486 | 178.16426 | 1069.31013 | 26090 | 23553 | 22155 | 04504 | 04150 | 03966 |
| 4.000 | 4.000 | -2.00000 | 2059.56003 | 178.12785 | 1069.09161 | 25300 | 23406 | 21986 | 04598 | 04265 | 04032 |
| 6.000 | 6.000 | -2.00000 | 2060.01712 | 178.16692 | 1069.32610 | 24815 | 23260 | 21882 | 04561 | 04241 | 04026 |
| 8.000 | 8.000 | -2.00000 | 2060.34888 | 178.19534 | 1069.49667 | 24815 | 22861 | 21638 | 04657 | 04345 | 04146 |
| 10.000 | 10.000 | -2.00000 | 2060.24548 | 178.18648 | 1069.44377 | 23711 | 22861 | 21638 | 04595 | 04345 | 04146 |
| 12.000 | 12.000 | -2.00000 | 2060.24661 | 178.18653 | 1069.44377 | 23711 | 22123 | 21083 | 04677 | 04409 | 04223 |
| 14.000 | 14.000 | -2.00000 | 2060.47552 | 178.20613 | 1069.56143 | 23058 | 21120 | 20651 | 04661 | 04411 | 04241 |
| 16.000 | 16.000 | -2.00000 | 2060.55393 | 178.21377 | 1069.60732 | 22476 | 21120 | 20206 | 04714 | 04468 | 04300 |
| 18.000 | 18.000 | -2.00000 | 2060.33616 | 178.16844 | 1069.33524 | 21614 | 20662 | 19438 | 04488 | 04249 | 04091 |
| 20.000 | 20.000 | -2.00000 | 2060.44046 | 178.20315 | 1069.54353 | 21614 | 20052 | 19241 | 04989 | 04714 | 04547 |
| 22.000 | 22.000 | -2.00000 | 2060.15353 | 178.17854 | 1069.39586 | 21406 | 20052 | 19241 | 03186 | 03017 | 02909 |
| 24.000 | 24.000 | -2.00000 | 2060.04486 | 178.16928 | 1069.34026 | 20885 | 24268 | 23125 | 03186 | 02951 | 02809 |
| GRADIENT | | .00000 | -.19609 | -.01627 | -.09767 | -.00250 | -.00173 | -.00171 | 00070 | 00071 | 00066 |

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 OF POOR QUALITY

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. YMRP = 1076.6880 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 ALLRON = .000 BDFLAP = -7.170

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|--------------|----------|------------|----------|-----------|---------|---------|---------|-------|-------|-------|
| ALPHA | -2.00000 | 1497.77222 | 87.59769 | 659.27209 | 29690 | 25956 | 23793 | 04652 | 04169 | 03877 |
| 2.000 | -2.00000 | 1497.76450 | 87.59732 | 659.26928 | 29809 | 25972 | 23875 | 05132 | 04583 | 04272 |
| 4.000 | -2.00000 | 1497.75714 | 87.59741 | 659.27001 | 28889 | 25465 | 23342 | 05283 | 04685 | 04383 |
| 6.000 | -2.00000 | 1497.74226 | 87.59619 | 659.26081 | 27979 | 24782 | 22854 | 05181 | 04684 | 04375 |
| 8.000 | -2.00000 | 1497.75372 | 87.59682 | 659.26557 | 26930 | 24105 | 22369 | 05004 | 04582 | 04287 |
| 10.000 | -2.00000 | 1497.67010 | 87.59167 | 659.22676 | 26628 | 24045 | 22374 | 05346 | 04967 | 04616 |
| 12.000 | -2.00000 | 1498.01534 | 87.61195 | 659.37941 | 25378 | 23006 | 21541 | 04942 | 04549 | 04301 |
| 14.000 | -2.00000 | 1494.60895 | 87.41100 | 657.86703 | 24671 | 22504 | 21161 | 04514 | 04282 | 04282 |
| 16.000 | -2.00000 | 1495.08078 | 87.43912 | 658.07367 | 24303 | 22257 | 21001 | 04767 | 04767 | 04657 |
| 18.000 | -2.00000 | 1495.25999 | 87.38984 | 657.70778 | 23521 | 21630 | 20443 | 04680 | 04680 | 04443 |
| 20.000 | -2.00000 | 1494.70457 | 87.41660 | 657.90915 | 22809 | 21037 | 19926 | 04992 | 04992 | 04460 |
| 22.000 | -2.00000 | 1494.94550 | 87.43099 | 658.01747 | 20985 | 20477 | 19381 | 05801 | 04679 | 04078 |
| 24.000 | -2.00000 | 1494.94550 | 87.43099 | 658.01747 | 20985 | 19441 | 18354 | 04569 | 04283 | 04078 |
| GRADIENT | .00000 | -.00127 | -.00007 | -.00052 | -.00202 | -.00124 | -.00113 | 00139 | 00131 | 00122 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | BETA | PT | P | OCOMP | DP042 | DP062 | DP044 | DP064 | DP064 |
|--------------|----------|------------|----------|-----------|---------|---------|-------|-------|-------|
| ALPHA | -2.00000 | 1942.79845 | 51.29598 | 567.38360 | 30895 | 25217 | 05188 | 04393 | 03940 |
| 2.000 | -2.00000 | 1939.95528 | 51.28303 | 566.57606 | 29824 | 24824 | 05098 | 04320 | 03876 |
| 4.000 | -2.00000 | 1937.25540 | 51.15163 | 565.78629 | 30070 | 24725 | 05539 | 04712 | 04245 |
| 6.000 | -2.00000 | 1932.01018 | 51.02006 | 564.33104 | 28621 | 23762 | 05008 | 04292 | 03894 |
| 8.000 | -2.00000 | 1931.78623 | 51.01216 | 564.24371 | 27513 | 23272 | 05362 | 04652 | 04246 |
| 10.000 | -2.00000 | 1932.19310 | 51.02143 | 564.34621 | 26396 | 22524 | 05138 | 04502 | 04122 |
| 12.000 | -2.00000 | 1932.51784 | 51.02796 | 564.41837 | 25345 | 22007 | 05245 | 04634 | 04257 |
| 14.000 | -2.00000 | 1931.30788 | 50.98654 | 563.96030 | 24444 | 21317 | 04911 | 04371 | 04034 |
| 16.000 | -2.00000 | 1931.10713 | 51.00535 | 563.96030 | 23511 | 20646 | 04934 | 04348 | 04038 |
| 18.000 | -2.00000 | 1931.43526 | 50.99056 | 564.00479 | 22845 | 19934 | 04501 | 04194 | 04194 |
| 20.000 | -2.00000 | 1931.85768 | 50.99784 | 564.08623 | 21909 | 18616 | 04277 | 04277 | 03992 |
| 22.000 | -2.00000 | 1932.01346 | 51.00587 | 564.17412 | 19403 | 18030 | 04747 | 04455 | 04160 |
| 24.000 | -2.00000 | 1931.72012 | 50.99929 | 564.10132 | 21338 | 17630 | 04824 | 04383 | 04282 |
| GRADIENT | .00000 | -1.38574 | -.03509 | -.39918 | -.00206 | -.00175 | 00088 | 00088 | 00076 |

(FETD04) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8300 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 ALLRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | DPOW2 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|--------------|----------|------------|----------|-----------|---------|---------|---------|--------|---------|--------|--------|
| .000 | -2.00000 | 2692.07135 | 34.16512 | 520.74471 | .33684 | .25752 | .21861 | .06178 | .04964 | .04322 | .04285 |
| 2.000 | -2.00000 | 2609.47937 | 34.18432 | 521.03742 | .32972 | .25352 | .21461 | .06116 | .04932 | .04285 | .04285 |
| 4.000 | -2.00000 | 2610.52899 | 34.19799 | 521.24570 | .32208 | .25005 | .21357 | .06416 | .05289 | .04285 | .04285 |
| 6.000 | -2.00000 | 2614.11072 | 34.24500 | 521.96236 | .30662 | .24189 | .20869 | .05985 | .04917 | .04335 | .04335 |
| 8.000 | -2.00000 | 2614.27722 | 34.24722 | 521.98606 | .28872 | .23339 | .20316 | .05872 | .04915 | .04363 | .04363 |
| 10.000 | -2.00000 | 2619.19357 | 34.31230 | 522.98803 | .27514 | .22497 | .19731 | .05674 | .04789 | .04276 | .04276 |
| 12.000 | -2.00000 | 2615.71823 | 34.26563 | 522.27669 | .26306 | .21824 | .19272 | .05638 | .04809 | .04317 | .04317 |
| 14.000 | -2.00000 | 2615.79174 | 34.29432 | 522.71407 | .25184 | .21134 | .18842 | .05450 | .04693 | .04246 | .04246 |
| 16.000 | -2.00000 | 2615.79174 | 34.26626 | 522.28640 | .24681 | .20840 | .18746 | .05104 | .05104 | .04652 | .04652 |
| 18.000 | -2.00000 | 2617.10403 | 34.28431 | 522.56139 | .23045 | .20375 | .18483 | .05934 | .05182 | .04743 | .04743 |
| 20.000 | -2.00000 | 2615.61575 | 34.26406 | 522.25275 | .23045 | .19752 | .17894 | .05683 | .04973 | .04557 | .04557 |
| 22.000 | -2.00000 | 2619.49899 | 34.31592 | 523.04321 | .22949 | .19772 | .17901 | .05743 | .05345 | .04801 | .04801 |
| 24.000 | -2.00000 | 2624.04555 | 34.37497 | 523.94328 | .22589 | .19571 | .17592 | .05728 | .05052 | .04601 | .04601 |
| GRADIENT | .00300 | .61442 | .00822 | .12524 | -.00359 | -.00187 | -.00126 | .00060 | -.00061 | .00058 | .00058 |

(FE7005) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-97-094 0A161 ORBITER + RAKES.

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILFRON = .000 BOFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPO42 | DPO62 | DPO82 | DPO44 | DPO54 | DPO64 |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|--------|---------|---------|
| .500 | .000 | .00000 | 2636.13434 | 2067.16983 | 568.98451 | .05351 | .05339 | .06061 | .13519 | -.13495 | -.13516 |
| 2.000 | .000 | .00000 | 2636.45262 | 2067.42532 | 569.02750 | .06054 | .06061 | .06061 | .12185 | -.12197 | .12186 |
| 4.000 | .000 | .00000 | 2638.36844 | 2068.84036 | 569.52808 | .05385 | .05396 | .05500 | .12532 | -.12562 | .12568 |
| 6.000 | .000 | .00000 | 2635.63572 | 2067.04514 | 568.79059 | .06345 | .06550 | .06550 | .11027 | -.11034 | .11046 |
| 8.000 | .000 | .00000 | 2635.20016 | 2067.24875 | 568.96142 | .04630 | .04625 | .04625 | .11474 | -.11485 | .11472 |
| 10.000 | .000 | .00000 | 2635.93494 | 2067.10458 | 568.83035 | .03389 | .03381 | .03381 | .11038 | -.11016 | .11028 |
| 12.000 | .000 | .00000 | 2635.46613 | 2066.78952 | 568.67661 | .01682 | .01682 | .01682 | .11419 | -.11404 | .11434 |
| 14.000 | .000 | .00000 | 2635.11768 | 2067.19876 | 568.91891 | -.00841 | -.00841 | -.00841 | .12248 | -.12243 | .12259 |
| 16.000 | .000 | .00000 | 2636.08233 | 2067.16296 | 568.92236 | -.04178 | -.04178 | -.04178 | .13112 | -.13112 | .13135 |
| 18.000 | .000 | .00000 | 2639.51053 | 2068.99408 | 569.61655 | -.07871 | -.07871 | -.07871 | .14550 | -.14547 | .14569 |
| 20.000 | .000 | .00000 | 2634.47291 | 2066.12332 | 568.35959 | -.10689 | -.10689 | -.10689 | .15811 | -.15824 | .15792 |
| 22.000 | .000 | .00000 | 2633.10691 | 2062.55417 | 567.55264 | -.13937 | -.13937 | -.13937 | .17437 | -.17353 | .17304 |
| 24.000 | .000 | .00000 | 2629.67941 | 2061.72954 | 567.94977 | -.18158 | -.17558 | -.17558 | .19714 | -.19499 | .19476 |
| GRADIENT | | | .55853 | .41762 | .14089 | .00008 | .00114 | .00114 | .00247 | -.00236 | .00235 |

RV/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .900 | .000 | .00000 | 2113.98108 | 1249.92923 | 864.05185 | .21446 | .21447 | .21467 | .05425 | -.05425 | .05429 |
| 2.000 | .000 | .00000 | 2112.05285 | 1248.77386 | 863.27889 | .23458 | .23437 | .23484 | -.03679 | -.03676 | -.03682 |
| 4.000 | .000 | .00000 | 2118.18839 | 1252.35219 | 865.83621 | .21988 | .21983 | .22000 | -.02974 | -.02973 | -.02974 |
| 6.000 | .000 | .00000 | 2114.64374 | 1250.29912 | 864.34464 | .22093 | .22083 | .22081 | -.01192 | -.01191 | -.01192 |
| 8.000 | .000 | .00000 | 2110.03122 | 1247.57354 | 862.45758 | .21795 | .21766 | .21764 | .00434 | -.00434 | .00434 |
| 10.000 | .000 | .00000 | 2112.73351 | 1249.11769 | 863.61572 | .20019 | .20012 | .20031 | .01006 | -.01006 | .01007 |
| 12.000 | .000 | .00000 | 2114.69935 | 1250.25399 | 864.43239 | .17405 | .17412 | .17405 | .02455 | -.02455 | .02455 |
| 14.000 | .000 | .00000 | 2117.13947 | 1251.72624 | 865.41324 | .14598 | .14595 | .14594 | .00201 | -.00201 | .00201 |
| 16.000 | .000 | .00000 | 2116.02139 | 1249.47339 | 863.82172 | .12338 | .12326 | .12331 | .00537 | -.00536 | .00537 |
| 18.000 | .000 | .00000 | 2113.29510 | 1249.47339 | 863.82172 | .09348 | .09350 | .09350 | -.00121 | -.00121 | .00121 |
| 20.000 | .000 | .00000 | 2111.35150 | 1248.25099 | 863.10052 | .05649 | .05636 | .05636 | -.01384 | -.01384 | .01385 |
| 22.000 | .000 | .00000 | 2110.78241 | 1247.85742 | 862.92499 | .01724 | .01718 | .01716 | -.02977 | -.02968 | .02965 |
| 24.000 | .000 | .00000 | 2113.14288 | 1249.38358 | 863.75931 | -.02170 | -.02151 | -.02151 | -.04708 | -.04677 | .04669 |
| GRADIENT | | | 1.05184 | .60574 | .44609 | .00138 | .00138 | .00133 | .00513 | -.00513 | .00514 |

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1075.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.200 | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|--------------|--------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| .000 | .00000 | 2009.78401 | 828.63679 | 1166.30751 | .39466 | .39466 | .36505 | .10747 | .10752 | .10755 |
| 2.000 | .00000 | 2006.93002 | 827.95351 | 1165.34591 | .38502 | .38502 | .36492 | .10442 | .10442 | .10450 |
| 4.000 | .00000 | 2006.95340 | 827.74980 | 1165.05922 | .38289 | .38172 | .36165 | .12790 | .12780 | .12778 |
| 6.000 | .00000 | 2012.21327 | 826.46886 | 1167.47879 | .36661 | .36602 | .36562 | .12595 | .12576 | .12567 |
| 8.000 | .00000 | 2011.69502 | 829.32592 | 1167.27747 | .35430 | .35430 | .35356 | .12109 | .12099 | .12078 |
| 10.000 | .00000 | 2012.05740 | 829.42208 | 1167.41291 | .34056 | .34038 | .33991 | .08227 | .08220 | .08209 |
| 12.000 | .00000 | 2012.65550 | 829.63939 | 1167.71857 | .32034 | .32020 | .32014 | .06730 | .06728 | .06727 |
| 14.000 | .00000 | 2012.78551 | 829.69245 | 1167.79337 | .29991 | .29995 | .29989 | .05482 | .05481 | .05481 |
| 16.000 | .00000 | 2011.04118 | 829.14474 | 1167.02246 | .27251 | .27259 | .27257 | .05651 | .05653 | .05652 |
| 18.000 | .00000 | 2012.20630 | 829.51370 | 1167.54176 | .24026 | .24026 | .24004 | .04833 | .04831 | .04829 |
| 20.000 | .00000 | 2018.50417 | 831.53033 | 1170.38017 | .21353 | .21339 | .21331 | .04304 | .04304 | .04299 |
| 22.000 | .00000 | 2017.94966 | 831.40853 | 1170.20888 | .18992 | .18994 | .18973 | .03782 | .03782 | .03779 |
| 24.000 | .00000 | 2014.63448 | 830.32520 | 1168.58396 | .17110 | .17089 | .17885 | .02689 | .02689 | .02685 |
| GRADIENT | .00000 | -.70766 | -.22172 | -.31207 | -.00314 | -.00129 | -.00335 | .00511 | .00597 | .00508 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.400 | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|--------------|--------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| .000 | .00000 | 2043.25790 | 642.23148 | 1318.08347 | .38272 | .38944 | .36459 | .07453 | .07107 | .07039 |
| 2.000 | .00000 | 2048.29000 | 643.57806 | 1318.84294 | .38285 | .38111 | .37703 | .07503 | .07477 | .07414 |
| 4.000 | .00000 | 2046.36710 | 643.02779 | 1317.71530 | .37239 | .37222 | .36835 | .08062 | .08059 | .07993 |
| 6.000 | .00000 | 2036.68442 | 640.56560 | 1312.67194 | .36466 | .36312 | .35887 | .08479 | .08450 | .08373 |
| 8.000 | .00000 | 2035.48167 | 640.58681 | 1312.71315 | .34725 | .34629 | .34234 | .08394 | .08355 | .08289 |
| 10.000 | .00000 | 2037.06380 | 640.77697 | 1313.10286 | .32954 | .32762 | .32458 | .08110 | .08072 | .08011 |
| 12.000 | .00000 | 2032.87712 | 639.62427 | 1310.74059 | .31957 | .31455 | .31205 | .07822 | .07802 | .07751 |
| 14.000 | .00000 | 2034.53186 | 640.07636 | 1311.66714 | .29771 | .29757 | .29486 | .07671 | .07569 | .07510 |
| 16.000 | .00000 | 2038.71129 | 641.14881 | 1313.86434 | .28350 | .28180 | .27909 | .07589 | .07550 | .07469 |
| 18.000 | .00000 | 2034.86371 | 640.10445 | 1311.72459 | .27415 | .27146 | .26914 | .07374 | .07313 | .07260 |
| 20.000 | .00000 | 2029.02076 | 638.64844 | 1308.74098 | .25819 | .25973 | .25368 | .06935 | .06979 | .06932 |
| 22.000 | .00000 | 2029.79141 | 638.90320 | 1309.26305 | .23649 | .23576 | .23209 | .06919 | .06919 | .06920 |
| 24.000 | .00000 | 2028.09565 | 639.46732 | 1308.30984 | .22507 | .22332 | .22073 | .05033 | .05033 | .04981 |
| GRADIENT | .00000 | .77729 | .19988 | .40796 | -.00508 | -.00130 | -.00406 | .00227 | .00238 | .00239 |

ORIGINAL PAGE IS OF POOR QUALITY

TABULATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2890.0000 SQ. FT. XMRP = 1076.6000 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = .000 ELEVON = .000
 AIRLON = .000 EDFLAP = -7.178

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|----------|--------|--------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 1.750 | .000 | .00000 | 1580.54595 | 401.10618 | 1045.16287 | .36997 | .36400 | .36925 | .05457 | .05389 | .05322 |
| 2.000 | 2.000 | .00000 | 1581.96228 | 401.46987 | 1046.11082 | .36250 | .35683 | .36220 | .05790 | .05720 | .05652 |
| 4.000 | 4.000 | .00000 | 1581.60306 | 401.36876 | 1045.84959 | .34328 | .33476 | .34376 | .06266 | .06198 | .06134 |
| 6.000 | 6.000 | .00000 | 1581.71895 | 401.39628 | 1045.91879 | .34398 | .33339 | .34307 | .06435 | .06367 | .06307 |
| 8.000 | 8.000 | .00000 | 1582.28792 | 401.54744 | 1046.31257 | .31159 | .32756 | .32367 | .06438 | .06377 | .06312 |
| 10.000 | 10.000 | .00000 | 1584.01578 | 401.86475 | 1047.40035 | .32008 | .31732 | .32552 | .06576 | .06512 | .06449 |
| 12.000 | 12.000 | .00000 | 1584.74577 | 402.14309 | 1047.86478 | .30191 | .30986 | .30555 | .06653 | .06589 | .06526 |
| 14.000 | 14.000 | .00000 | 1584.30254 | 402.03269 | 1047.57710 | .28619 | .29889 | .29333 | .06940 | .06865 | .06792 |
| 16.000 | 16.000 | .00000 | 1584.53708 | 402.09357 | 1047.73572 | .27873 | .28689 | .28357 | .06619 | .06547 | .06477 |
| 18.000 | 18.000 | .00000 | 1585.24020 | 402.26379 | 1048.17926 | .26341 | .26894 | .26163 | .06229 | .06161 | .06089 |
| 20.000 | 20.000 | .00000 | 1585.26917 | 402.27295 | 1048.20312 | .25674 | .26094 | .25377 | .05907 | .05831 | .05757 |
| 22.000 | 22.000 | .00000 | 1584.67165 | 402.12355 | 1047.81384 | .23972 | .23378 | .23376 | .05489 | .05420 | .05343 |
| 24.000 | 24.000 | .00000 | 1584.25276 | 402.01530 | 1047.53378 | .23972 | .23378 | .23376 | .05489 | .05420 | .05343 |
| GRADIENT | | .00000 | .26428 | .06590 | .17171 | -.00392 | -.00367 | -.00337 | .00202 | .00202 | .00203 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|----------|--------|--------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 1.750 | .000 | .00000 | 1657.74608 | 311.37225 | 1072.15997 | .38022 | .37563 | .36494 | .08222 | .08012 | .07832 |
| 2.000 | 2.000 | .00000 | 1657.99976 | 311.41864 | 1072.31970 | .37596 | .36334 | .35394 | .08513 | .08226 | .08109 |
| 4.000 | 4.000 | .00000 | 1657.20947 | 311.27179 | 1071.81404 | .37020 | .35882 | .34937 | .08584 | .08471 | .08332 |
| 6.000 | 6.000 | .00000 | 1656.47336 | 311.13422 | 1071.34035 | .36573 | .35507 | .34684 | .08759 | .08555 | .08393 |
| 8.000 | 8.000 | .00000 | 1657.27676 | 311.28436 | 1071.65733 | .35623 | .34611 | .33840 | .08853 | .08660 | .08504 |
| 10.000 | 10.000 | .00000 | 1657.32759 | 311.24621 | 1071.88681 | .34704 | .33889 | .33142 | .09095 | .08922 | .08761 |
| 12.000 | 12.000 | .00000 | 1656.50393 | 311.14008 | 1071.36053 | .33471 | .32429 | .31647 | .09357 | .09176 | .08945 |
| 14.000 | 14.000 | .00000 | 1657.07622 | 311.24621 | 1071.72598 | .32381 | .31593 | .30663 | .09355 | .09176 | .08945 |
| 16.000 | 16.000 | .00000 | 1656.60485 | 311.15869 | 1071.42461 | .31352 | .30837 | .29784 | .09544 | .09371 | .09143 |
| 18.000 | 18.000 | .00000 | 1656.32849 | 311.10677 | 1071.24582 | .30077 | .29497 | .28756 | .09544 | .09371 | .09143 |
| 20.000 | 20.000 | .00000 | 1656.80373 | 311.19482 | 1071.54903 | .28483 | .27697 | .27156 | .09592 | .09422 | .09259 |
| 22.000 | 22.000 | .00000 | 1657.27647 | 311.28266 | 1071.85149 | .27790 | .26955 | .26423 | .09592 | .09422 | .09259 |
| 24.000 | 24.000 | .00000 | 1657.16254 | 311.26139 | 1071.77823 | .26853 | .26091 | .25559 | .09140 | .08942 | .08759 |
| GRADIENT | | .00000 | -.13413 | -.02512 | -.08649 | -.00450 | -.00420 | -.00389 | .00115 | .00115 | .00115 |

(IF7005) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-09M)
ARC 11-97-87-09+ 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO44 | DPO54 | DPO64 |
|----------|--------|--------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 2.000 | .0000 | .0000 | 1847.14075 | 235.84824 | 1094.43971 | .35972 | .32209 | .07908 | .07524 | .07327 |
| 2.000 | .0000 | .0000 | 1846.77534 | 235.80064 | 1094.21881 | .33137 | .31639 | .07994 | .07600 | .07320 |
| 4.000 | .0000 | .0000 | 1847.06482 | 235.83535 | 1094.37987 | .32322 | .30834 | .08135 | .07735 | .07456 |
| 4.000 | .0000 | .0000 | 1846.70287 | 235.79072 | 1094.17278 | .31533 | .30322 | .08157 | .07781 | .07511 |
| 8.000 | .0000 | .0000 | 1846.84723 | 235.80816 | 1094.25836 | .29922 | .29222 | .08150 | .07799 | .07539 |
| 10.000 | .0000 | .0000 | 1847.73077 | 235.93651 | 1094.84930 | .30125 | .29007 | .08178 | .07751 | .07609 |
| 12.000 | .0000 | .0000 | 1847.06197 | 235.84271 | 1094.41403 | .29505 | .28475 | .08281 | .07935 | .07703 |
| 14.000 | .0000 | .0000 | 1846.76268 | 235.79962 | 1094.21408 | .28370 | .27419 | .08334 | .07717 | .07436 |
| 16.000 | .0000 | .0000 | 1846.78920 | 235.81072 | 1094.26558 | .27576 | .27019 | .07848 | .07612 | .07414 |
| 18.000 | .0000 | .0000 | 1846.62433 | 235.78563 | 1094.14917 | .26348 | .25177 | .07693 | .07445 | .07264 |
| 20.000 | .0000 | .0000 | 1846.66009 | 235.81953 | 1094.30649 | .26443 | .25255 | .07749 | .07460 | .07285 |
| 22.000 | .0000 | .0000 | 1846.62697 | 235.81627 | 1094.29134 | .25138 | .24348 | .07784 | .07488 | .07285 |
| 24.000 | .0000 | .0000 | 1845.84973 | 235.68645 | 1093.68892 | .25043 | .23204 | .07591 | .07295 | .07105 |
| GRADIENT | .00000 | .00000 | -.01898 | -.00322 | -.01495 | -.00413 | -.00344 | .00057 | .0003E | .00055 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO44 | DPO54 | DPO64 |
|----------|--------|--------|------------|-----------|------------|---------|---------|--------|--------|--------|
| 2.250 | .0000 | .0000 | 2059.62274 | 178.13523 | 1069.13588 | .32785 | .29613 | .06791 | .06252 | .05936 |
| 2.000 | .0000 | .0000 | 2059.69022 | 178.14101 | 1069.17059 | .3237E | .29232 | .07004 | .06444 | .06108 |
| 4.000 | .0000 | .0000 | 2059.24142 | 178.10249 | 1069.93841 | .31666 | .28879 | .07009 | .06500 | .06148 |
| 6.000 | .0000 | .0000 | 2059.67896 | 178.13995 | 1069.16425 | .30993 | .28581 | .07014 | .06523 | .06194 |
| 8.000 | .0000 | .0000 | 2059.63947 | 178.13654 | 1069.14375 | .29411 | .27811 | .07224 | .06725 | .06420 |
| 10.000 | .0000 | .0000 | 2059.11798 | 178.09175 | 1068.87497 | .28791 | .27179 | .07178 | .06721 | .06433 |
| 12.000 | .0000 | .0000 | 2059.74341 | 178.05964 | 1068.58224 | .26761 | .25507 | .07050 | .06632 | .06358 |
| 14.000 | .0000 | .0000 | 2059.55293 | 178.12831 | 1069.09737 | .26173 | .24995 | .06984 | .06608 | .06352 |
| 16.000 | .0000 | .0000 | 2059.35752 | 178.11519 | 1069.00357 | .25462 | .24431 | .07105 | .06730 | .06416 |
| 18.000 | .0000 | .0000 | 2059.83990 | 178.06728 | 1068.73170 | .24481 | .23517 | .07007 | .06663 | .06437 |
| 20.000 | .0000 | .0000 | 2059.20343 | 178.09903 | 1068.91852 | .24292 | .23292 | .07525 | .07148 | .06831 |
| 22.000 | .0000 | .0000 | 2059.94349 | 178.07670 | 1068.78462 | .23218 | .20965 | .05934 | .05542 | .05345 |
| 24.000 | .0000 | .0000 | 2058.85312 | 178.06898 | 1068.73825 | .29194 | .27881 | .13338 | .12593 | .12095 |
| GRADIENT | .00000 | .00000 | -.09552 | -.00818 | -.04911 | -.00280 | -.00200 | .00055 | .0003E | .00053 |

BETA = .000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

ARC 11-97-87-094 0A161 ORBITER + RAKES

(FE7005) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AIRLON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | ALPHA | BETA | PT | P | OCOMP | DPOW2 | DPOE2 | DPOE4 | DPOE4 | DPOE4 |
|--------------|----------|--------|------------|----------|-----------|---------|---------|--------|--------|--------|
| | .000 | .00000 | 1495.02940 | 87.42976 | 658.00636 | 33212 | .26609 | .07911 | .06267 | .05846 |
| | 2.000 | .00000 | 1495.07198 | 87.43218 | 658.02643 | 32900 | .26789 | .07472 | .06699 | .06257 |
| | 4.000 | .00000 | 1494.55016 | 87.38912 | 657.70238 | 32424 | .26728 | .07341 | .06610 | .06151 |
| | 6.000 | .00000 | 1494.94664 | 87.42504 | 657.97271 | 31584 | .27836 | .07374 | .06644 | .06205 |
| | 8.000 | .00000 | 1495.11034 | 87.43490 | 658.04689 | 30714 | .27998 | .07278 | .06601 | .06202 |
| | 10.000 | .00000 | 1494.33299 | 87.39847 | 657.69749 | 29976 | .26923 | .07338 | .06710 | .06315 |
| | 12.000 | .00000 | 1494.99853 | 87.42791 | 657.99431 | 28780 | .25996 | .07281 | .06685 | .06328 |
| | 14.000 | .00000 | 1494.32796 | 87.39815 | 657.69506 | 27721 | .25280 | .07167 | .06630 | .06317 |
| | 16.000 | .00000 | 1494.82258 | 87.42212 | 657.95069 | 27137 | .23962 | .07182 | .06682 | .06390 |
| | 18.000 | .00000 | 1494.35973 | 87.39025 | 657.71090 | 26236 | .23018 | .07199 | .06721 | .06435 |
| | 20.000 | .00000 | 1494.65466 | 87.41999 | 657.93397 | 25495 | .22447 | .06949 | .06515 | .06228 |
| | 22.000 | .00000 | 1494.36290 | 87.39047 | 657.71292 | 25115 | .22110 | .07029 | .06601 | .06297 |
| | 24.000 | .00000 | 1494.88579 | 87.42173 | 657.94775 | 24083 | .21220 | .06623 | .06416 | .06113 |
| | GRADIENT | .00000 | -.16982 | -.01016 | -.07650 | -.00197 | -.00109 | .00083 | .00086 | .00076 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | OCOMP | DPOW2 | DPOE2 | DPOW4 | DPOE4 | DPOE4 |
|--------------|----------|--------|------------|----------|-----------|---------|---------|---------|---------|---------|
| | .000 | .00000 | 1940.57863 | 51.17667 | 566.06326 | 36748 | .27347 | .06960 | .05862 | .05297 |
| | 2.000 | .00000 | 1940.33086 | 51.16886 | 565.97688 | 33105 | .27013 | .06840 | .05792 | .05213 |
| | 4.000 | .00000 | 1939.72018 | 51.14571 | 565.72091 | 32372 | .26626 | .06882 | .05861 | .05282 |
| | 6.000 | .00000 | 1939.65381 | 51.15674 | 565.84290 | 31280 | .25881 | .06817 | .05831 | .05292 |
| | 8.000 | .00000 | 1938.91023 | 51.13770 | 565.63732 | 30215 | .25485 | .07003 | .06076 | .05562 |
| | 10.000 | .00000 | 1939.71480 | 51.15037 | 565.88296 | 29126 | .24850 | .07007 | .06132 | .05534 |
| | 12.000 | .00000 | 1939.08939 | 51.14639 | 565.72841 | 27712 | .23848 | .06822 | .06008 | .05569 |
| | 14.000 | .00000 | 1939.37943 | 51.15133 | 565.78307 | 26669 | .23143 | .06562 | .05817 | .05422 |
| | 16.000 | .00000 | 1938.79555 | 51.13805 | 565.63618 | 25767 | .22652 | .06547 | .05864 | .05478 |
| | 18.000 | .00000 | 1939.37152 | 51.15323 | 565.89401 | 25098 | .20614 | .06749 | .06087 | .05694 |
| | 20.000 | .00000 | 1939.61790 | 51.16009 | 565.87995 | 24096 | .19968 | .06447 | .05861 | .05476 |
| | 22.000 | .00000 | 1938.92849 | 51.13827 | 565.63956 | 24174 | .17107 | .06959 | .06338 | .05913 |
| | 24.000 | .00000 | 1939.35316 | 51.15332 | 565.80522 | 22985 | .18784 | .06140 | .05617 | .05225 |
| | GRADIENT | .00000 | -.28561 | -.00774 | -.08959 | -.00344 | -.00174 | -.00019 | -.00000 | -.00004 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(FETD05) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BDELAP = -7.170

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|--------------|--------|--------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| | .000 | .00000 | 2639.31965 | 34.57549 | 526.99953 | .34908 | .26631 | .22722 | .07624 | .05109 | .05340 |
| | 2.000 | .00000 | 2640.01656 | 34.58445 | 527.13617 | .34604 | .26569 | .22555 | .07709 | .05207 | .05408 |
| | 4.000 | .00000 | 2640.89996 | 34.59589 | 527.31057 | .33199 | .25752 | .22105 | .07437 | .05039 | .05294 |
| | 6.000 | .00000 | 2644.64435 | 34.64481 | 528.05621 | .32334 | .25415 | .21936 | .07495 | .05137 | .05411 |
| | 8.000 | .00000 | 2646.62357 | 34.67127 | 528.45923 | .30022 | .24125 | .21150 | .07089 | .05894 | .05252 |
| | 10.000 | .00000 | 2646.82231 | 34.67362 | 528.49225 | .28520 | .23328 | .20661 | .06829 | .05746 | .05173 |
| | 12.000 | .00000 | 2647.36554 | 34.68086 | 528.60566 | .27740 | .22875 | .20508 | .06779 | .05059 | .05510 |
| | 14.000 | .00000 | 2652.42503 | 34.74652 | 529.60644 | .26317 | .22022 | .19824 | .06779 | .05819 | .05339 |
| | 16.000 | .00000 | 2653.07376 | 34.75490 | 529.73420 | .25117 | .21331 | .19278 | .06660 | .05785 | .05293 |
| | 18.000 | .00000 | 2650.25250 | 34.71894 | 529.18607 | .24889 | .21342 | .19315 | .07014 | .05140 | .05524 |
| | 20.000 | .00000 | 2651.51239 | 34.73560 | 529.43997 | .24057 | .21827 | .18804 | .06765 | .05968 | .05454 |
| | 22.000 | .00000 | 2652.55411 | 34.74832 | 529.53383 | .23794 | .21772 | .18696 | .07055 | .06267 | .05709 |
| | 24.000 | .00000 | 2651.96234 | 34.74070 | 529.51771 | .23537 | .20580 | .18455 | .07014 | .06238 | .05584 |
| GRADIENT | | .00000 | .39504 | .00510 | .07776 | -.00428 | -.00220 | -.00154 | -.00047 | -.00020 | -.00011 |

ORIGINAL PAGE IS OF POOR QUALITY

(FE7D06) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES.

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|----------|--------|---------|------------|------------|-----------|---------|---------|---------|--------|--------|--------|
| .600 | .000 | 2.00000 | 2623.08527 | 2060.85532 | 567.22995 | .08259 | .08253 | .08257 | .12837 | .12831 | .12836 |
| .000 | 2.000 | 2.00000 | 2625.49554 | 2058.85480 | 566.64084 | .12941 | .12934 | .12938 | .09566 | .09557 | .09565 |
| 2.000 | 4.000 | 2.00000 | 2627.76624 | 2060.48969 | 567.27655 | .13665 | .13634 | .13631 | .09023 | .09023 | .09021 |
| 4.000 | 6.000 | 2.00000 | 2627.00654 | 2059.99554 | 567.00510 | .10261 | .10261 | .10262 | .10162 | .10155 | .10157 |
| 6.000 | 8.000 | 2.00000 | 2626.97994 | 2060.00323 | 566.97571 | .08972 | .08986 | .08972 | .10204 | .10204 | .10190 |
| 10.000 | 10.000 | 2.00000 | 2626.30542 | 2059.42654 | 566.87888 | .07465 | .07473 | .07460 | .10171 | .10179 | .10164 |
| 12.000 | 12.000 | 2.00000 | 2626.31223 | 2059.48074 | 566.83148 | .05637 | .05640 | .05629 | .10067 | .10072 | .10054 |
| 14.000 | 14.000 | 2.00000 | 2623.99167 | 2061.44455 | 557.54712 | .03203 | .03199 | .03196 | .10246 | .10235 | .10227 |
| 16.000 | 16.000 | 2.00000 | 2627.44873 | 2060.24384 | 567.20490 | .00217 | .00217 | .00217 | .11119 | .11111 | .11102 |
| 18.000 | 18.000 | 2.00000 | 2626.31005 | 2059.46307 | 566.84698 | -.03067 | -.03066 | -.03061 | .12032 | .12030 | .12032 |
| 20.000 | 20.000 | 2.00000 | 2626.65659 | 2059.71997 | 566.93661 | -.07005 | -.06993 | -.06980 | .13740 | .13761 | .13716 |
| 22.000 | 22.000 | 2.00000 | 2624.28891 | 2057.95145 | 566.33746 | -.10801 | -.10747 | -.10749 | .15634 | .15561 | .15563 |
| 24.000 | 24.000 | 2.00000 | 2623.73047 | 2057.53900 | 566.19147 | -.14688 | -.14543 | -.14549 | .17680 | .17512 | .17519 |
| GRADIENT | | .00000 | -.07975 | -.09139 | .01165 | .01352 | .01345 | .01343 | .00950 | .00952 | .00954 |

RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|----------|--------|---------|------------|------------|-----------|--------|--------|--------|---------|---------|---------|
| .900 | .000 | 2.00000 | 2112.48575 | 1248.91620 | 863.56955 | .29606 | .29604 | .29615 | .02913 | .02913 | .02914 |
| 2.000 | 2.000 | 2.00000 | 2115.92145 | 1251.04158 | 864.87988 | .30294 | .30340 | .30371 | .01068 | .01068 | .01070 |
| 4.000 | 4.000 | 2.00000 | 2119.15109 | 1252.90967 | 866.24142 | .29797 | .29769 | .29799 | .00153 | .00153 | .00153 |
| 6.000 | 6.000 | 2.00000 | 2117.58701 | 1251.97867 | 865.60834 | .29897 | .29878 | .29873 | .01458 | .01457 | .01457 |
| 8.000 | 8.000 | 2.00000 | 2114.79404 | 1250.37154 | 864.42252 | .29354 | .29344 | .29357 | .02459 | .02459 | .02460 |
| 10.000 | 10.000 | 2.00000 | 2119.07846 | 1252.94972 | 866.12975 | .26884 | .26874 | .26882 | .03366 | .03365 | .03366 |
| 12.000 | 12.000 | 2.00000 | 2115.97959 | 1251.07672 | 864.90286 | .24715 | .24715 | .24706 | .03733 | .03733 | .03732 |
| 14.000 | 14.000 | 2.00000 | 2114.68259 | 1250.28664 | 864.39397 | .22273 | .22268 | .22267 | .03744 | .03743 | .03743 |
| 16.000 | 16.000 | 2.00000 | 2116.93549 | 1251.61702 | 865.24848 | .18829 | .18809 | .18823 | .03256 | .03256 | .03258 |
| 18.000 | 18.000 | 2.00000 | 2117.39859 | 1251.38719 | 865.51141 | .14918 | .14887 | .14903 | .02430 | .02425 | .02428 |
| 20.000 | 20.000 | 2.00000 | 2115.91061 | 1251.01956 | 864.89105 | .11311 | .11295 | .11308 | .01497 | .01495 | .01497 |
| 22.000 | 22.000 | 2.00000 | 2110.44638 | 1247.78032 | 862.66608 | .07894 | .07873 | .07875 | .00303 | .00302 | .00302 |
| 24.000 | 24.000 | 2.00000 | 2109.08812 | 1246.91112 | 862.17700 | .03723 | .03691 | .03689 | -.00868 | -.00861 | -.00861 |
| GRADIENT | | .00000 | 1.56636 | .99836 | .56797 | .00048 | .00041 | .00046 | .00690 | .00690 | .00690 |

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BDFLAR = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

(FE7D06) (02 AUG 75)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

MACH = 1.200
 RNVL = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|----------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|--------|
| .000 | 2.00000 | 2003.55424 | 828.76637 | 1166.48990 | .47259 | .47230 | .47226 | .47254 | .14256 | .14254 | .14254 |
| 2.000 | 2.00000 | 2008.90266 | 828.44971 | 1166.04420 | .47630 | .47613 | .47521 | .14288 | .14288 | .14288 | |
| 4.000 | 2.00000 | 2009.08081 | 828.45160 | 1166.04564 | .46531 | .46490 | .46402 | .15437 | .15437 | .15437 | |
| 6.000 | 2.00000 | 2012.49275 | 829.60759 | 1167.67390 | .45170 | .45110 | .45107 | .16620 | .16620 | .16620 | |
| 8.000 | 2.00000 | 2011.92189 | 829.36008 | 1167.32553 | .43931 | .43969 | .43884 | .15410 | .15410 | .15385 | |
| 10.000 | 2.00000 | 2013.54626 | 829.94049 | 1168.14247 | .40297 | .40255 | .40232 | .12164 | .12164 | .12150 | |
| 12.000 | 2.00000 | 2015.19850 | 830.40101 | 1168.79065 | .37712 | .37674 | .37651 | .09902 | .09902 | .09896 | |
| 14.000 | 2.00000 | 2013.69295 | 829.94411 | 1168.14755 | .34785 | .34750 | .34734 | .10004 | .09996 | .09981 | |
| 16.000 | 2.00000 | 2013.23676 | 829.86232 | 1168.03244 | .31505 | .31453 | .31431 | .10108 | .10108 | .10104 | |
| 18.000 | 2.00000 | 2017.18069 | 830.97342 | 1169.59631 | .28336 | .28287 | .28262 | .08667 | .08655 | .08650 | |
| 20.000 | 2.00000 | 2019.10837 | 831.89906 | 1170.99917 | .25735 | .25691 | .25656 | .07908 | .07908 | .07902 | |
| 24.000 | 2.00000 | 2020.01411 | 832.02087 | 1171.07062 | .23612 | .23531 | .23517 | .07510 | .07510 | .07502 | |
| GRADIENT | .00000 | -1.1837 | -0.07869 | -1.1077 | -0.0182 | -0.0185 | -0.0206 | .06479 | .06498 | .06476 | |

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|----------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|-------|
| .000 | 2.00000 | 2044.20187 | 642.54803 | 1316.73218 | .44170 | .43790 | .43278 | .09156 | .09156 | .09015 | |
| 2.000 | 2.00000 | 2046.48904 | 643.12830 | 1317.92126 | .43656 | .43439 | .42957 | .09096 | .09096 | .09492 | |
| 4.000 | 2.00000 | 2041.44493 | 641.78365 | 1315.16579 | .42424 | .42403 | .41977 | .09611 | .09575 | .09492 | |
| 6.000 | 2.00000 | 2044.57449 | 642.62668 | 1316.89333 | .41186 | .41076 | .40639 | .10314 | .10310 | .10229 | |
| 8.000 | 2.00000 | 2040.73563 | 641.70628 | 1315.00722 | .40107 | .40107 | .39635 | .10624 | .10501 | .10513 | |
| 10.000 | 2.00000 | 2035.77562 | 640.44118 | 1312.41475 | .38070 | .37936 | .37606 | .10881 | .10861 | .10779 | |
| 12.000 | 2.00000 | 2036.94426 | 640.72521 | 1312.96580 | .36795 | .36805 | .36325 | .10474 | .10444 | .10372 | |
| 14.000 | 2.00000 | 2039.65687 | 641.42471 | 1314.43022 | .34975 | .34885 | .34644 | .10368 | .10346 | .10288 | |
| 16.000 | 2.00000 | 2039.60769 | 641.40276 | 1314.38522 | .32843 | .32782 | .32513 | .10117 | .10104 | .10033 | |
| 18.000 | 2.00000 | 2039.32877 | 641.26414 | 1314.16118 | .32143 | .31957 | .31883 | .10144 | .10144 | .10059 | |
| 20.000 | 2.00000 | 2033.91595 | 639.92600 | 1311.35902 | .31759 | .31482 | .31256 | .10191 | .10144 | .10099 | |
| 24.000 | 2.00000 | 2023.58159 | 637.19749 | 1305.76765 | .30284 | .29983 | .29761 | .09481 | .09401 | .09343 | |
| GRADIENT | .00000 | -1.68921 | -0.19109 | -1.39160 | -0.0437 | -0.0347 | -0.0325 | .08860 | .08759 | .08716 | |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6600 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRP = 936.6600 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BDIFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|-------|----------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 1.550 | .000 | 2.00000 | 1563.49985 | 397.96504 | 1036.97801 | .44605 | .43868 | .43218 | .09486 | .09367 | .09261 |
| | 2.000 | 2.00000 | 1570.76030 | 398.53608 | 1038.46596 | .43524 | .42821 | .42227 | .09552 | .09730 | .09626 |
| | 4.000 | 2.00000 | 1572.20036 | 398.86619 | 1039.32613 | .42327 | .41656 | .41149 | .09901 | .09779 | .09686 |
| | 6.000 | 2.00000 | 1572.37077 | 398.90957 | 1039.43916 | .40992 | .40302 | .39873 | .10412 | .10274 | .10188 |
| | 8.000 | 2.00000 | 1573.70795 | 399.25253 | 1040.33282 | .39573 | .39018 | .38612 | .10471 | .10355 | .10269 |
| | 10.000 | 2.00000 | 1573.85640 | 399.24512 | 1040.31351 | .38175 | .37702 | .37342 | .10364 | .10261 | .10183 |
| | 12.000 | 2.00000 | 1572.64583 | 398.98661 | 1039.63991 | .37085 | .36701 | .36351 | .10414 | .10334 | .10334 |
| | 14.000 | 2.00000 | 1572.69780 | 399.00035 | 1039.67572 | .36070 | .35692 | .35276 | .10703 | .10611 | .10510 |
| | 16.000 | 2.00000 | 1572.12041 | 398.84843 | 1039.27986 | .35083 | .34783 | .34369 | .10522 | .10449 | .10352 |
| | 18.000 | 2.00000 | 1571.97592 | 398.81422 | 1039.19070 | .33905 | .33654 | .33334 | .10395 | .10331 | .10250 |
| | 20.000 | 2.00000 | 1574.13762 | 399.35440 | 1040.62433 | .32875 | .32623 | .32268 | .10061 | .09897 | .09907 |
| | 22.000 | 2.00000 | 1576.42464 | 399.93516 | 1042.11156 | .31893 | .31646 | .31345 | .09503 | .09442 | .09367 |
| | 24.000 | 2.00000 | 1576.96655 | 400.08393 | 1042.49896 | .30403 | .30171 | .29977 | .08647 | .08692 | .08546 |
| | GRADIENT | .00000 | .92511 | .22529 | .58703 | -.00570 | -.00353 | -.00517 | .00104 | .00103 | .00106 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|-------|----------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| 1.750 | .000 | 2.00000 | 1656.77100 | 311.18817 | 1071.52611 | .44296 | .42851 | .41759 | .10469 | .10225 | .10023 |
| | 2.000 | 2.00000 | 1655.31691 | 310.91837 | 1070.59709 | .43495 | .42090 | .41049 | .10550 | .10285 | .10087 |
| | 4.000 | 2.00000 | 1655.46857 | 310.84656 | 1070.65418 | .42509 | .41090 | .40118 | .10803 | .10520 | .10325 |
| | 6.000 | 2.00000 | 1655.59386 | 310.97010 | 1070.77524 | .41849 | .40597 | .39633 | .11017 | .10757 | .10566 |
| | 8.000 | 2.00000 | 1656.17558 | 311.07782 | 1071.14615 | .40924 | .39699 | .38820 | .10981 | .10721 | .10532 |
| | 10.000 | 2.00000 | 1656.23152 | 311.08852 | 1071.16300 | .39336 | .38495 | .37533 | .11049 | .10860 | .10642 |
| | 12.000 | 2.00000 | 1656.29276 | 311.09945 | 1071.22061 | .37963 | .37179 | .36448 | .11342 | .11152 | .10974 |
| | 14.000 | 2.00000 | 1656.36481 | 311.11320 | 1071.26796 | .36697 | .35906 | .35121 | .11675 | .11468 | .11262 |
| | 16.000 | 2.00000 | 1655.64990 | 310.98056 | 1070.81123 | .35139 | .34561 | .33982 | .11702 | .11543 | .11382 |
| | 18.000 | 2.00000 | 1656.12805 | 311.05919 | 1071.11641 | .34199 | .33654 | .33173 | .11505 | .11352 | .11216 |
| | 20.000 | 2.00000 | 1656.39803 | 311.11927 | 1071.28888 | .33625 | .33069 | .32522 | .11264 | .11109 | .10955 |
| | 22.000 | 2.00000 | 1655.98810 | 311.04332 | 1071.02734 | .32455 | .31721 | .31214 | .11224 | .11010 | .10861 |
| | 24.000 | 2.00000 | 1655.65131 | 310.98100 | 1070.81276 | .31121 | .30258 | .29810 | .10770 | .10517 | .10384 |
| | GRADIENT | .00000 | -.32560 | -.06040 | -.20799 | -.00447 | -.00440 | -.00410 | .00078 | .00074 | .00075 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

(FE7D06) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0003 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RWL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|--------------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| ALPHA .000 | 2.00000 | 1845.99238 | 236.71697 | 1093.83054 | .39831 | .37309 | .35645 | .09990 | .09486 | .09145 |
| 2.000 | 2.00000 | 1845.69019 | 235.68356 | 1093.67549 | .39155 | .36818 | .35223 | .10127 | .09642 | .09303 |
| 4.000 | 2.00000 | 1844.79626 | 235.56110 | 1093.10722 | .38167 | .35850 | .34343 | .10259 | .09756 | .09422 |
| 6.000 | 2.00000 | 1844.06850 | 235.46566 | 1092.66437 | .37033 | .35049 | .33624 | .10260 | .09813 | .09487 |
| 8.000 | 2.00000 | 1845.05612 | 235.59471 | 1093.26320 | .36621 | .34756 | .33382 | .10358 | .09927 | .09605 |
| 10.000 | 2.00000 | 1845.94762 | 235.71702 | 1093.83081 | .35269 | .33496 | .32327 | .10518 | .10082 | .09790 |
| 12.000 | 2.00000 | 1845.38353 | 235.63626 | 1093.45602 | .34480 | .33088 | .31984 | .10282 | .09939 | .09663 |
| 14.000 | 2.00000 | 1846.05315 | 235.72144 | 1093.85130 | .33749 | .32145 | .31092 | .10172 | .09770 | .09503 |
| 16.000 | 2.00000 | 1846.19992 | 235.73932 | 1093.93427 | .32618 | .31364 | .30452 | .10081 | .09757 | .09521 |
| 18.000 | 2.00000 | 1846.65709 | 235.79776 | 1094.20544 | .30936 | .29910 | .29075 | .09667 | .09397 | .09175 |
| 20.000 | 2.00000 | 1847.25053 | 235.88823 | 1094.62527 | .29860 | .28890 | .28075 | .09749 | .09480 | .09215 |
| 22.000 | 2.00000 | 1847.20595 | 235.88139 | 1094.59354 | .29341 | .28171 | .27350 | .09835 | .09568 | .09303 |
| 24.000 | 2.00000 | 1846.34912 | 235.77158 | 1094.08394 | .28148 | .25967 | .26220 | .09859 | .09502 | .09274 |
| GRADIENT | .00000 | -.29651 | -.03897 | -.18083 | -.00416 | -.03365 | -.00326 | .00067 | .00068 | .00068 |

RWL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|--------------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| ALPHA .000 | 2.00000 | 2059.21463 | 178.10006 | 1068.92479 | .41984 | .37817 | .35501 | .09652 | .09115 | .08667 |
| 2.000 | 2.00000 | 2059.05692 | 178.08647 | 1068.84325 | .41489 | .37356 | .35149 | .10269 | .09454 | .09003 |
| 4.000 | 2.00000 | 2059.39257 | 178.11435 | 1069.01056 | .40570 | .36862 | .34546 | .10447 | .09679 | .09188 |
| 6.000 | 2.00000 | 2059.19521 | 178.09820 | 1068.91364 | .39217 | .35827 | .33719 | .10482 | .09759 | .09281 |
| 8.000 | 2.00000 | 2059.07996 | 178.08838 | 1068.85469 | .38100 | .35034 | .33105 | .10620 | .09925 | .09475 |
| 10.000 | 2.00000 | 2059.48004 | 178.12256 | 1069.05988 | .37262 | .34348 | .32704 | .10597 | .09919 | .09527 |
| 12.000 | 2.00000 | 2058.62692 | 178.04952 | 1068.62146 | .35840 | .33227 | .31727 | .10408 | .09764 | .09417 |
| 14.000 | 2.00000 | 2059.07443 | 178.08793 | 1068.85205 | .35065 | .32826 | .31323 | .10396 | .09846 | .09471 |
| 16.000 | 2.00000 | 2058.61588 | 178.04855 | 1068.61566 | .33601 | .31615 | .30303 | .10332 | .09822 | .09480 |
| 18.000 | 2.00000 | 2058.53250 | 178.04136 | 1068.57248 | .32692 | .30799 | .29541 | .10382 | .09877 | .09536 |
| 20.000 | 2.00000 | 2058.52477 | 178.04055 | 1068.56763 | .31110 | .29799 | .28785 | .10161 | .09731 | .09366 |
| 22.000 | 2.00000 | 2058.59705 | 178.04666 | 1068.60429 | .31957 | .30162 | .28825 | .10114 | .09731 | .09366 |
| 24.000 | 2.00000 | 2058.37756 | 178.02781 | 1068.49115 | .27387 | .25758 | .24751 | .08129 | .07715 | .07455 |
| GRADIENT | .00000 | .04199 | .00357 | .02144 | -.00354 | -.00241 | -.00238 | .00139 | .00141 | .00130 |

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000
 AILRON = .000
 ELEVON = .000
 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | ALPHA | BETA | PT | P | QCOMP | DPO42 | DPO52 | DPO62 | DPO64 | DPO654 | DPO654 | DPO654 |
|--------------|----------|---------|------------|----------|-----------|---------|---------|---------|--------|--------|--------|--------|
| | .000 | 2.00000 | 1487.32057 | 86.97802 | 654.60834 | .37619 | .32594 | .30062 | .08813 | .07665 | .07351 | .07351 |
| | 2.000 | 2.00000 | 1487.98101 | 87.01836 | 654.91200 | .37928 | .33048 | .30580 | .09292 | .08318 | .07885 | .07885 |
| | 4.000 | 2.00000 | 1487.96725 | 87.01707 | 654.90228 | .37018 | .32356 | .29822 | .09462 | .08486 | .07933 | .07933 |
| | 6.000 | 2.00000 | 1487.96211 | 87.01669 | 654.89940 | .35758 | .31447 | .29111 | .09441 | .08502 | .07974 | .07974 |
| | 8.000 | 2.00000 | 1487.95708 | 87.01653 | 654.89824 | .34570 | .30726 | .28683 | .09585 | .08698 | .08212 | .08212 |
| | 10.000 | 2.00000 | 1487.91705 | 87.01443 | 654.86243 | .33332 | .29339 | .28001 | .09256 | .08445 | .08005 | .08005 |
| | 12.000 | 2.00000 | 1487.93314 | 87.01538 | 654.88956 | .32470 | .28857 | .27680 | .09567 | .08791 | .08369 | .08369 |
| | 14.000 | 2.00000 | 1487.92639 | 87.01483 | 654.88538 | .31565 | .28350 | .27375 | .09408 | .08627 | .08215 | .08215 |
| | 16.000 | 2.00000 | 1487.94725 | 87.01604 | 654.89454 | .30713 | .27948 | .26778 | .09224 | .08423 | .08055 | .08055 |
| | 18.000 | 2.00000 | 1487.92914 | 87.01502 | 654.86582 | .30178 | .27348 | .26364 | .09307 | .08575 | .08273 | .08273 |
| | 20.000 | 2.00000 | 1487.95275 | 87.01727 | 654.90379 | .29049 | .25948 | .25048 | .09211 | .08455 | .08145 | .08145 |
| | 22.000 | 2.00000 | 1487.95438 | 87.01694 | 654.90131 | .27613 | .24635 | .23325 | .09086 | .08245 | .07945 | .07945 |
| | 24.000 | 2.00000 | 1487.98357 | 87.01667 | 654.91432 | .26444 | .23635 | .22325 | .09086 | .08245 | .07945 | .07945 |
| | GRADIENT | .00000 | .16166 | .00976 | .07349 | -.00150 | -.00059 | -.00060 | .00162 | .00158 | .00145 | .00145 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | P | QCOMP | DPO42 | DPO52 | DPO62 | DPO64 | DPO654 | DPO654 | DPO654 |
|--------------|----------|---------|------------|----------|-----------|---------|---------|---------|--------|--------|--------|--------|
| | .000 | 2.00000 | 1939.15904 | 51.12361 | 565.47639 | .34989 | .28368 | .25442 | .08565 | .07048 | .06427 | .06427 |
| | 2.000 | 2.00000 | 1940.13221 | 51.14938 | 565.76151 | .34576 | .28174 | .25130 | .08316 | .07038 | .06384 | .06384 |
| | 4.000 | 2.00000 | 1939.45256 | 51.13434 | 565.59507 | .34359 | .28106 | .25136 | .08723 | .07396 | .06726 | .06726 |
| | 6.000 | 2.00000 | 1939.50688 | 51.13526 | 565.60524 | .33092 | .27362 | .24663 | .08624 | .07365 | .06743 | .06743 |
| | 8.000 | 2.00000 | 1939.64354 | 51.14013 | 565.65913 | .30540 | .25757 | .23436 | .08460 | .07329 | .06758 | .06758 |
| | 10.000 | 2.00000 | 1937.17625 | 51.07750 | 564.96639 | .30799 | .25188 | .23935 | .08500 | .07416 | .06856 | .06856 |
| | 12.000 | 2.00000 | 1939.09195 | 51.10284 | 565.24663 | .29514 | .24480 | .23390 | .08204 | .07246 | .06731 | .06731 |
| | 14.000 | 2.00000 | 1937.63146 | 51.10284 | 565.07146 | .28248 | .24768 | .22792 | .08079 | .07224 | .06723 | .06723 |
| | 16.000 | 2.00000 | 1939.26942 | 51.13221 | 565.35637 | .27663 | .24562 | .22588 | .08224 | .07428 | .06908 | .06908 |
| | 18.000 | 2.00000 | 1938.53479 | 51.11276 | 565.57153 | .26714 | .23932 | .22053 | .08157 | .07420 | .06910 | .06910 |
| | 20.000 | 2.00000 | 1938.72614 | 51.12192 | 565.45771 | .25875 | .23287 | .21476 | .08139 | .07429 | .06921 | .06921 |
| | 22.000 | 2.00000 | 1939.94917 | 51.12868 | 565.53468 | .25829 | .22829 | .21050 | .08176 | .07476 | .06962 | .06962 |
| | 24.000 | 2.00000 | 1938.90468 | 51.12836 | 565.52881 | .24804 | .22372 | .20612 | .08337 | .07618 | .07085 | .07085 |
| | GRADIENT | .00000 | .07340 | .00268 | .02967 | -.00160 | -.00071 | -.00076 | .00088 | .00086 | .00075 | .00075 |

(FETD06) (02 AUG 76)

TABULATED DATA - OA161 (ARC 11-97-87-09#)
ARC 11-97-87-09# OA161 ORBITER + RAKES

PARAMETRIC DATA

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

RW/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP064 | DP066 | DP068 |
|--------------|---------|------------|----------|-----------|---------|---------|---------|---------|--------|--------|--------|
| .000 | 2.00000 | 2667.88812 | 34.95021 | 532.71109 | .35882 | .27425 | .23820 | .08561 | .06869 | .06996 | .06996 |
| 2.000 | 2.00000 | 2667.98584 | 34.96149 | 532.73055 | .35413 | .27246 | .23603 | .08436 | .06803 | .06824 | .06824 |
| 4.000 | 2.00000 | 2667.55579 | 34.94600 | 532.64689 | .34471 | .26749 | .23296 | .08609 | .06901 | .06134 | .06134 |
| 6.000 | 2.00000 | 2668.66705 | 34.96039 | 532.86630 | .32114 | .26029 | .22829 | .08311 | .06787 | .06067 | .06067 |
| 8.000 | 2.00000 | 2668.83286 | 34.96260 | 532.85992 | .32167 | .25512 | .22611 | .08434 | .06948 | .06263 | .06263 |
| 10.000 | 2.00000 | 2667.49628 | 34.94465 | 532.62630 | .30579 | .24934 | .22252 | .08329 | .06356 | .06422 | .06422 |
| 12.000 | 2.00000 | 2669.69775 | 34.97392 | 533.07244 | .29295 | .24333 | .21777 | .08279 | .07071 | .06374 | .06374 |
| 14.000 | 2.00000 | 2668.85501 | 34.96312 | 532.90790 | .28169 | .23838 | .21297 | .08109 | .07032 | .06360 | .06360 |
| 16.000 | 2.00000 | 2669.65961 | 34.97344 | 533.06512 | .26945 | .23137 | .20759 | .08100 | .06993 | .06470 | .06470 |
| 18.000 | 2.00000 | 2668.67300 | 34.96078 | 532.87227 | .25997 | .22586 | .20347 | .08210 | .07092 | .06556 | .06556 |
| 20.000 | 2.00000 | 2670.18805 | 34.98034 | 533.17038 | .25785 | .22504 | .20284 | .08210 | .07294 | .06774 | .06774 |
| 22.000 | 2.00000 | 2668.19308 | 34.95369 | 532.76417 | .25319 | .22115 | .19863 | .08383 | .07450 | .06836 | .06836 |
| 24.000 | 2.00000 | 2670.01163 | 34.97799 | 533.13458 | .25204 | .22011 | .19747 | .08473 | .07527 | .06836 | .06836 |
| GRADIENT | .00000 | -.08307 | -.00105 | -.01603 | -.00353 | -.00169 | -.00131 | -.00013 | .00008 | .00010 | .00010 |

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OF POOR QUALITY

(FEZ007) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09A)
ARC 11-97-87-09A 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LPEF = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = .000
A1LRON = .000
ELEVON = .000
BOFLAP = -7.170

RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .600 | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|----------|--------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA | .000 | 5.00000 | 2624.00095 | 2057.68289 | 566.31805 | .18116 | -.18133 | .18134 | -.09379 | -.09379 | -.09380 |
| | 2.000 | 5.00000 | 2623.93231 | 2057.61972 | 566.31259 | .20751 | .20755 | .20752 | -.07475 | -.07475 | -.07475 |
| | 4.000 | 5.00000 | 2624.85635 | 2058.36877 | 566.48758 | .22375 | .22339 | .22293 | -.06531 | -.06531 | -.06521 |
| | 6.000 | 5.00000 | 2627.65573 | 2060.37476 | 567.28098 | .19903 | .19897 | .19890 | -.06747 | -.06747 | -.06743 |
| | 8.000 | 5.00000 | 2625.01135 | 2058.40189 | 566.60947 | .19662 | .19558 | .19552 | -.05347 | -.05347 | -.05345 |
| | 10.000 | 5.00000 | 2625.85368 | 2059.00568 | 566.85800 | .18418 | .18405 | .18394 | -.05340 | -.05340 | -.05334 |
| | 12.000 | 5.00000 | 2624.17407 | 2057.86670 | 566.30737 | .15771 | .15770 | .15768 | -.05192 | -.05192 | -.05192 |
| | 14.000 | 5.00000 | 2624.36069 | 2058.02087 | 566.33991 | .12350 | .12327 | .12341 | -.06440 | -.06440 | -.06446 |
| | 16.000 | 5.00000 | 2624.72836 | 2058.21182 | 566.51654 | .09181 | .09174 | .09172 | -.07109 | -.07109 | -.07108 |
| | 18.000 | 5.00000 | 2627.18732 | 2059.99523 | 567.20209 | .05060 | .05055 | .05052 | -.07897 | -.07897 | -.07896 |
| | 20.000 | 5.00000 | 2627.48154 | 2060.22818 | 567.25336 | .00118 | .00117 | .00117 | -.09749 | -.09749 | -.09726 |
| | 22.000 | 5.00000 | 2625.04254 | 2058.51157 | 566.53099 | -.04146 | -.04132 | -.04122 | -.11597 | -.11597 | -.11559 |
| | 24.000 | 5.00000 | 2625.90552 | 2059.19518 | 566.72034 | -.08483 | -.08398 | -.08384 | -.13488 | -.13488 | -.13467 |
| GRADIENT | | .00000 | .21397 | .17145 | .04238 | .01065 | .01051 | .01040 | .00708 | .00712 | .00715 |

RM/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .960 | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|----------|--------|---------|------------|------------|-----------|--------|--------|--------|--------|--------|--------|
| ALPHA | .000 | 5.00000 | 2111.48715 | 1248.50783 | 862.97934 | .43828 | .43965 | .43998 | .01154 | .01154 | .01154 |
| | 2.000 | 5.00000 | 2115.43283 | 1250.78174 | 864.65109 | .44130 | .44128 | .44132 | .02511 | .02511 | .02511 |
| | 4.000 | 5.00000 | 2117.10138 | 1251.73029 | 865.37109 | .44038 | .43983 | .44029 | .04346 | .04346 | .04346 |
| | 6.000 | 5.00000 | 2114.79214 | 1250.37328 | 864.41888 | .44137 | .44173 | .44172 | .05977 | .05977 | .05977 |
| | 8.000 | 5.00000 | 2109.95957 | 1247.40634 | 862.56323 | .43646 | .43665 | .43609 | .07634 | .07634 | .07629 |
| | 10.000 | 5.00000 | 2116.56833 | 1251.47731 | 865.09103 | .40234 | .40206 | .40196 | .08214 | .08214 | .08212 |
| | 12.000 | 5.00000 | 2116.71036 | 1251.56195 | 865.14841 | .37591 | .37593 | .37608 | .08948 | .08948 | .08952 |
| | 14.000 | 5.00000 | 2114.93735 | 1248.90517 | 863.37808 | .34872 | .34862 | .34861 | .09292 | .09292 | .09292 |
| | 16.000 | 5.00000 | 2114.43449 | 1250.43449 | 864.47287 | .31152 | .31109 | .31097 | .08821 | .08811 | .08806 |
| | 18.000 | 5.00000 | 2115.76746 | 1250.94657 | 864.82080 | .27329 | .27278 | .27264 | .08353 | .08353 | .08349 |
| | 20.000 | 5.00000 | 2108.11159 | 1246.37889 | 861.73282 | .23234 | .23180 | .23170 | .07442 | .07442 | .07424 |
| | 22.000 | 5.00000 | 2109.97089 | 1247.37915 | 862.59174 | .17999 | .17948 | .17931 | .05450 | .05450 | .05431 |
| | 24.000 | 5.00000 | 2116.70166 | 1251.42284 | 865.27884 | .12816 | .12738 | .12720 | .03991 | .03991 | .03986 |
| GRADIENT | | .00000 | 1.40354 | .80562 | .59794 | .00028 | .00007 | .00008 | .00798 | .00797 | .00798 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 5.000
 AILRON = .000
 ELEVON = .000
 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.550 | BETA | PT | P | QCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|--------------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| .000 | 5.00000 | 1561.82259 | 396.34618 | 1032.75972 | .57410 | .56308 | .55579 | .13829 | .13535 | .13507 |
| 2.000 | 5.00000 | 1563.04628 | 396.66676 | 1033.56905 | .57375 | .56155 | .55438 | .14061 | .13842 | .13713 |
| 4.000 | 5.00000 | 1563.16922 | 396.66547 | 1033.55172 | .56302 | .55079 | .54303 | .14104 | .13879 | .13772 |
| 6.000 | 5.00000 | 1563.46620 | 396.74025 | 1033.76556 | .53795 | .52921 | .52263 | .14319 | .14145 | .14013 |
| 8.000 | 5.00000 | 1567.33949 | 397.71354 | 1036.32269 | .51814 | .51050 | .50404 | .14533 | .14371 | .14233 |
| 10.000 | 5.00000 | 1572.23666 | 398.95424 | 1039.55556 | .49968 | .49325 | .48761 | .14605 | .14461 | .14334 |
| 12.000 | 5.00000 | 1570.17735 | 398.42982 | 1038.16909 | .49154 | .48563 | .48079 | .14700 | .14587 | .14472 |
| 14.000 | 5.00000 | 1568.15364 | 397.92425 | 1036.87173 | .47600 | .47099 | .46769 | .14903 | .14781 | .14700 |
| 16.000 | 5.00000 | 1568.53318 | 398.03931 | 1037.16893 | .46389 | .45911 | .45437 | .14829 | .14708 | .14589 |
| 18.000 | 5.00000 | 1568.80666 | 398.07167 | 1037.25586 | .44664 | .44355 | .4397 | .14621 | .14437 | .14343 |
| 20.000 | 5.00000 | 1568.97467 | 398.12064 | 1037.39345 | .42375 | .41704 | .41408 | .15443 | .15244 | .15156 |
| 22.000 | 5.00000 | 1571.11673 | 398.66293 | 1038.81490 | .40135 | .39718 | .39393 | .15952 | .15815 | .15704 |
| 24.000 | 5.00000 | 1571.43258 | 399.73946 | 1038.99330 | .38468 | .38191 | .37919 | .15595 | .15501 | .15409 |
| GRADIENT | .00000 | .33665 | .07983 | .20800 | -.00277 | -.01307 | -.00269 | .00069 | .00061 | .00065 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | BETA | PT | P | QCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|--------------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| .000 | 5.00000 | 1655.65865 | 310.98269 | 1070.81854 | .53727 | .51834 | .50572 | .14810 | .14417 | .14151 |
| 2.000 | 5.00000 | 1655.87311 | 311.02239 | 1070.95529 | .52887 | .51251 | .50158 | .15250 | .14892 | .14627 |
| 4.000 | 5.00000 | 1655.81648 | 311.01186 | 1070.91904 | .52407 | .50700 | .49590 | .15019 | .14646 | .14401 |
| 6.000 | 5.00000 | 1655.53960 | 311.14603 | 1071.38103 | .50623 | .49157 | .48121 | .14968 | .14655 | .14416 |
| 8.000 | 5.00000 | 1655.73843 | 310.99725 | 1070.86871 | .49259 | .47983 | .47105 | .15344 | .15035 | .14821 |
| 10.000 | 5.00000 | 1655.74200 | 310.99860 | 1070.87334 | .48546 | .47346 | .46433 | .15538 | .15237 | .15006 |
| 12.000 | 5.00000 | 1654.84193 | 310.82005 | 1070.25854 | .47103 | .46167 | .45244 | .15682 | .15396 | .15191 |
| 14.000 | 5.00000 | 1656.26360 | 311.03466 | 1071.19794 | .45856 | .45102 | .44324 | .15519 | .15306 | .15095 |
| 16.000 | 5.00000 | 1656.03967 | 311.05456 | 1071.06638 | .44358 | .43661 | .42777 | .15264 | .15064 | .14846 |
| 18.000 | 5.00000 | 1655.22122 | 310.85534 | 1070.36005 | .42716 | .42353 | .41258 | .15022 | .14834 | .14606 |
| 20.000 | 5.00000 | 1654.73904 | 310.79540 | 1070.16747 | .41275 | .40506 | .39920 | .15049 | .14850 | .14644 |
| 22.000 | 5.00000 | 1655.71509 | 310.98600 | 1070.62997 | .39756 | .39078 | .38473 | .15562 | .15342 | .15145 |
| 24.000 | 5.00000 | 1656.66173 | 311.16761 | 1071.45531 | .38569 | .37979 | .37369 | .15684 | .15483 | .15274 |
| GRADIENT | .00000 | .03946 | .09730 | .02512 | -.00330 | -.00283 | -.00245 | .00052 | .00057 | .00063 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

(FE7007) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALURON = .000 BSFLAP = -7.170

REFERENCE DATA

SFEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BPCF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|--------------|----------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| | .000 | 5.00000 | 1634.93984 | 234.25348 | 1087.03931 | 48149 | 45218 | 43468 | 13128 | 12490 | 12112 |
| | 2.000 | 5.00000 | 1830.93913 | 233.75630 | 1084.73218 | 47834 | 44942 | 43167 | 13141 | 12524 | 12137 |
| | 4.000 | 5.00000 | 1831.46227 | 233.83033 | 1085.07568 | 46958 | 44397 | 42607 | 13362 | 12791 | 12384 |
| | 6.000 | 5.00000 | 1831.73677 | 233.86808 | 1085.26099 | 45555 | 43186 | 41552 | 13586 | 13009 | 12615 |
| | 8.000 | 5.00000 | 1834.07591 | 234.17492 | 1086.67477 | 43822 | 41567 | 40116 | 13470 | 12917 | 12595 |
| | 10.000 | 5.00000 | 1835.11595 | 234.42052 | 1087.81444 | 42249 | 40407 | 38933 | 13270 | 12901 | 12528 |
| | 12.000 | 5.00000 | 1835.10439 | 234.41899 | 1087.80734 | 41491 | 39508 | 38235 | 13365 | 12848 | 12511 |
| | 14.000 | 5.00000 | 1841.39902 | 235.10691 | 1090.99950 | 39704 | 38257 | 36990 | 13271 | 12912 | 12463 |
| | 16.000 | 5.00000 | 1849.66311 | 235.19734 | 1096.05959 | 38211 | 36952 | 35540 | 12953 | 12874 | 12232 |
| | 18.000 | 5.00000 | 1849.99158 | 236.21837 | 1096.15729 | 37793 | 36474 | 35463 | 13303 | 12919 | 12623 |
| | 20.000 | 5.00000 | 1845.65546 | 235.65004 | 1094.56019 | 36755 | 35622 | 34510 | 13577 | 13228 | 12913 |
| | 22.000 | 5.00000 | 1847.52986 | 235.89360 | 1094.65019 | 34550 | 33627 | 32570 | 13147 | 12951 | 12508 |
| | 24.000 | 5.00000 | 1848.52892 | 236.04575 | 1095.55625 | 33132 | 32250 | 31226 | 13309 | 12999 | 12651 |
| | GRADIENT | .00000 | -.86914 | -.10579 | -.49091 | -.00295 | -.00205 | -.00215 | .00063 | .00075 | .00058 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DPO62 | DPO44 | DPO54 | DPO64 |
|--------------|----------|---------|------------|-----------|------------|---------|---------|---------|--------|--------|--------|
| | .000 | 5.00000 | 2059.36877 | 178.11419 | 1069.00958 | 45872 | 41673 | 39405 | 12765 | 11644 | 11329 |
| | 2.000 | 5.00000 | 2058.48529 | 178.03863 | 1068.55612 | 45321 | 41251 | 39065 | 13003 | 12076 | 11563 |
| | 4.000 | 5.00000 | 2059.33249 | 178.11115 | 1068.99139 | 45337 | 41303 | 39056 | 13218 | 12297 | 11747 |
| | 6.000 | 5.00000 | 2059.45581 | 178.12163 | 1069.05426 | 44231 | 40562 | 38535 | 13015 | 12194 | 11665 |
| | 8.000 | 5.00000 | 2058.44526 | 178.03483 | 1068.53333 | 42213 | 38989 | 37022 | 12950 | 12127 | 11653 |
| | 10.000 | 5.00000 | 2059.21469 | 178.10055 | 1068.92778 | 40395 | 37595 | 35982 | 13164 | 12419 | 11955 |
| | 12.000 | 5.00000 | 2058.72852 | 178.05987 | 1068.67759 | 39974 | 37441 | 35696 | 13521 | 12819 | 12323 |
| | 14.000 | 5.00000 | 2059.33539 | 178.32506 | 1069.47466 | 38746 | 36300 | 34640 | 13447 | 12745 | 12259 |
| | 16.000 | 5.00000 | 2059.73508 | 178.14466 | 1069.13247 | 38055 | 35693 | 34092 | 13457 | 12763 | 12264 |
| | 18.000 | 5.00000 | 2058.78250 | 178.06276 | 1068.70093 | 37107 | 35093 | 33542 | 13686 | 13057 | 12518 |
| | 20.000 | 5.00000 | 2059.53272 | 178.13587 | 1069.13972 | 35997 | 34144 | 32776 | 13843 | 13242 | 12791 |
| | 22.000 | 5.00000 | 2058.95155 | 178.07759 | 1068.78992 | 34795 | 33056 | 31692 | 13549 | 12786 | 12356 |
| | 24.000 | 5.00000 | 2059.71259 | 178.05665 | 1068.66547 | 36343 | 34376 | 33010 | 15723 | 14995 | 14482 |
| | GRADIENT | .00000 | -.00907 | -.00976 | -.00455 | -.00134 | -.00079 | -.00087 | .00113 | .00113 | .00104 |

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OF POOR QUALITY

(FE7007) (02 AUG 76)

TABLED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-C + 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRPF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000
 AIRLON = .000
 ELEVON = .000
 BDFLAP = -7.578

PARAMETRIC DATA

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|----------|--------|---------|------------|----------|-----------|---------|---------|---------|--------|--------|--------|
| 2.500 | 0.000 | 5.00000 | 1487.41808 | 86.98371 | 654.65117 | 43045 | 37564 | 35105 | 11908 | 10688 | 10117 |
| | 2.000 | 5.00000 | 1487.53204 | 86.99042 | 654.70170 | 42478 | 37185 | 34682 | 11804 | 10519 | 10029 |
| | 4.000 | 5.00000 | 1487.58736 | 86.99367 | 654.72614 | 41815 | 36709 | 34151 | 12022 | 10832 | 10212 |
| | 6.000 | 5.00000 | 1487.58953 | 86.99354 | 654.72516 | 41413 | 36404 | 34020 | 12458 | 11229 | 10522 |
| | 8.000 | 5.00000 | 1487.60661 | 86.99529 | 654.73836 | 39947 | 35636 | 33450 | 12354 | 11258 | 10685 |
| | 10.000 | 5.00000 | 1487.63735 | 86.99730 | 654.75260 | 38810 | 34943 | 32832 | 11265 | 11265 | 10777 |
| | 12.000 | 5.00000 | 1487.63515 | 86.99719 | 654.75260 | 37785 | 34335 | 32275 | 11340 | 11340 | 10825 |
| | 14.000 | 5.00000 | 1487.64052 | 86.99771 | 654.75660 | 36786 | 33624 | 31705 | 11371 | 11371 | 10849 |
| | 16.000 | 5.00000 | 1487.63155 | 86.99771 | 654.75660 | 35656 | 32773 | 30953 | 11364 | 11364 | 10894 |
| | 18.000 | 5.00000 | 1487.64584 | 86.99899 | 654.76619 | 34527 | 31956 | 30235 | 11419 | 11419 | 11158 |
| | 20.000 | 5.00000 | 1487.60917 | 86.99542 | 654.74684 | 33500 | 31071 | 29394 | 11701 | 11701 | 11227 |
| | 22.000 | 5.00000 | 1487.61295 | 86.99581 | 654.74979 | 32533 | 30227 | 28590 | 11776 | 11776 | 11379 |
| | 24.000 | 5.00000 | 1487.57954 | 86.99521 | 654.73773 | 31555 | 29427 | 27890 | 11921 | 11921 | 11579 |
| GRADIENT | | .00000 | .04233 | .00249 | .01874 | -.00307 | -.00214 | -.00238 | .00029 | .00036 | .00024 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DP042 | DP052 | DP062 | DP044 | DP054 | DP064 |
|----------|--------|---------|------------|----------|-----------|---------|---------|---------|--------|--------|--------|
| 3.000 | 0.000 | 5.00000 | 1939.46461 | 51.12282 | 565.46770 | 38218 | 31313 | 28494 | 10687 | 09083 | 08393 |
| | 2.000 | 5.00000 | 1937.72949 | 51.07815 | 564.97363 | 37926 | 30949 | 28165 | 10726 | 09282 | 08391 |
| | 4.000 | 5.00000 | 1938.05981 | 51.08625 | 565.06321 | 37117 | 30610 | 27781 | 10709 | 09133 | 08417 |
| | 6.000 | 5.00000 | 1938.52211 | 51.09301 | 565.20436 | 36459 | 30205 | 27507 | 10776 | 09225 | 08524 |
| | 8.000 | 5.00000 | 1938.14912 | 51.09524 | 565.16251 | 34951 | 29437 | 26949 | 10637 | 09219 | 08553 |
| | 10.000 | 5.00000 | 1938.11229 | 51.09543 | 565.17573 | 33816 | 28999 | 26520 | 10619 | 09357 | 08553 |
| | 12.000 | 5.00000 | 1937.93176 | 51.09222 | 565.12921 | 32833 | 28553 | 26165 | 10619 | 09440 | 08600 |
| | 14.000 | 5.00000 | 1938.80711 | 51.10291 | 565.24744 | 31681 | 27805 | 25562 | 10568 | 09451 | 08612 |
| | 16.000 | 5.00000 | 1938.64451 | 51.12433 | 565.48442 | 30883 | 27299 | 25141 | 10512 | 09463 | 08671 |
| | 18.000 | 5.00000 | 1938.64451 | 51.11243 | 565.48442 | 29934 | 26626 | 24926 | 10396 | 09529 | 08677 |
| | 20.000 | 5.00000 | 1938.51352 | 51.11130 | 565.40651 | 29145 | 26038 | 24974 | 10366 | 09552 | 08677 |
| | 22.000 | 5.00000 | 1938.80377 | 51.12642 | 565.50747 | 28454 | 25458 | 24416 | 10300 | 09605 | 08675 |
| | 24.000 | 5.00000 | 1938.83142 | 51.11131 | 565.34034 | 27849 | 24925 | 23977 | 10282 | 09667 | 08675 |
| GRADIENT | | .00000 | -.35343 | -.00914 | -.10112 | -.00275 | -.00176 | -.00178 | .00003 | .00013 | .00006 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(F7D07) (02 AUG 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0000

BETA = 5.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.370

PARAMETRIC DATA

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | DPO42 | DPO52 | DP062 | DP044 | DP054 | DP064 |
|-------|--------|---------|------------|----------|-----------|---------|---------|---------|--------|--------|--------|
| 3.500 | .000 | 5.00000 | 2683.02945 | 35.14780 | 535.72283 | .37691 | .29347 | .26023 | .10487 | .05539 | .07712 |
| | 2.000 | 5.00000 | 2682.78683 | 35.14482 | 535.67736 | .37185 | .28831 | .25440 | .10368 | .06408 | .07560 |
| | 4.000 | 5.00000 | 2690.96332 | 35.12155 | 535.32265 | .34463 | .28467 | .25211 | .10525 | .06575 | .07731 |
| | 6.000 | 5.00000 | 2682.66058 | 35.14306 | 535.67053 | .35545 | .28091 | .24980 | .10524 | .06575 | .07826 |
| | 8.000 | 5.00000 | 2680.66055 | 35.11761 | 535.21256 | .34309 | .27559 | .24569 | .10375 | .06637 | .07980 |
| | 10.000 | 5.00000 | 2682.31409 | 35.13849 | 535.58065 | .32759 | .27028 | .24191 | .10335 | .06782 | .08105 |
| | 12.000 | 5.00000 | 2620.79922 | 35.11946 | 535.25087 | .31710 | .26608 | .23761 | .10378 | .06841 | .08020 |
| | 14.000 | 5.00000 | 2681.94269 | 35.13391 | 535.51109 | .30555 | .26935 | .23206 | .10163 | .06823 | .08041 |
| | 16.000 | 5.00000 | 2680.62974 | 35.11878 | 535.28040 | .29340 | .26555 | .22779 | .10150 | .06846 | .08082 |
| | 18.000 | 5.00000 | 2680.17957 | 35.11156 | 535.17936 | .28956 | .26863 | .22552 | .10391 | .09132 | .08202 |
| | 20.000 | 5.00000 | 2682.18320 | 35.13710 | 535.55972 | .26060 | .24261 | .21778 | .10239 | .06225 | .08309 |
| | 22.000 | 5.00000 | 2690.60205 | 35.11565 | 535.23274 | .27586 | .23552 | .21434 | .10372 | .06309 | .08520 |
| | 24.000 | 5.00000 | 2690.41931 | 35.11479 | 535.21957 | .27178 | .23533 | .21248 | .10502 | .06343 | .08620 |
| | .00000 | .00000 | -.51654 | -.00556 | -.10005 | -.00307 | -.00220 | -.00203 | .00010 | .00009 | .00005 |

GRADIENT

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M#2 | M#2 | M#2 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 |
|----------|--------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.200 | .000 | -5.00000 | 2003.91339 | 828.82202 | 1166.58822 | 1.00674 | 1.00622 | 1.00630 | 1.14013 | 1.13962 | 1.13970 | 1.12912 | 1.12912 | 1.12912 | 1.12912 | 1.12912 | 1.12912 | 1.12912 |
| 2.000 | .000 | -5.00000 | 2009.58676 | 828.57557 | 1166.22134 | 1.01193 | 1.01172 | 1.01192 | 1.12914 | 1.12893 | 1.12912 | 1.12094 | 1.12094 | 1.12094 | 1.12094 | 1.12094 | 1.12094 | 1.12094 |
| 4.000 | .000 | -5.00000 | 2012.39209 | 829.41618 | 1167.43450 | 1.01730 | 1.01751 | 1.01718 | 1.12105 | 1.12126 | 1.12126 | 1.11697 | 1.11697 | 1.11697 | 1.11697 | 1.11697 | 1.11697 | 1.11697 |
| 6.000 | .000 | -5.00000 | 2007.30058 | 828.01813 | 1165.43674 | 1.01953 | 1.01970 | 1.01971 | 1.11680 | 1.11680 | 1.11680 | 1.13017 | 1.13017 | 1.13017 | 1.13017 | 1.13017 | 1.13017 | 1.13017 |
| 8.000 | .000 | -5.00000 | 2005.18105 | 827.76498 | 1165.03044 | 1.02582 | 1.02541 | 1.02540 | 1.16537 | 1.16420 | 1.16381 | 1.16420 | 1.16420 | 1.16420 | 1.16420 | 1.16420 | 1.16420 | 1.16420 |
| 10.000 | .000 | -5.00000 | 1999.63934 | 826.38300 | 1163.13526 | 1.03204 | 1.03085 | 1.03045 | 1.16537 | 1.16420 | 1.16381 | 1.16420 | 1.16420 | 1.16420 | 1.16420 | 1.16420 | 1.16420 | 1.16420 |
| 12.000 | .000 | -5.00000 | 2001.46516 | 826.74883 | 1163.65021 | 1.04481 | 1.04307 | 1.04255 | 1.18624 | 1.18452 | 1.18401 | 1.18452 | 1.18452 | 1.18452 | 1.18452 | 1.18452 | 1.18452 | 1.18452 |
| 14.000 | .000 | -5.00000 | 2001.03822 | 826.64798 | 1163.50826 | 1.05819 | 1.05591 | 1.05648 | 1.19050 | 1.18824 | 1.18824 | 1.19050 | 1.19050 | 1.19050 | 1.19050 | 1.19050 | 1.19050 | 1.19050 |
| 16.000 | .000 | -5.00000 | 1999.43224 | 826.30900 | 1163.03114 | 1.07029 | 1.06765 | 1.06889 | 1.19954 | 1.19700 | 1.19700 | 1.21442 | 1.21442 | 1.21442 | 1.21442 | 1.21442 | 1.21442 | 1.21442 |
| 18.000 | .000 | -5.00000 | 2003.10529 | 827.20448 | 1164.29153 | 1.08799 | 1.08536 | 1.08605 | 1.22240 | 1.21978 | 1.21978 | 1.22240 | 1.22240 | 1.22240 | 1.22240 | 1.22240 | 1.22240 | 1.22240 |
| 20.000 | .000 | -5.00000 | 2000.66202 | 826.62385 | 1163.47430 | 1.10475 | 1.10214 | 1.10275 | 1.22791 | 1.22604 | 1.22604 | 1.22791 | 1.22791 | 1.22791 | 1.22791 | 1.22791 | 1.22791 | 1.22791 |
| 22.000 | .000 | -5.00000 | 1996.12405 | 825.65847 | 1162.11952 | 1.11679 | 1.11492 | 1.11599 | 1.23643 | 1.23556 | 1.23556 | 1.23643 | 1.23643 | 1.23643 | 1.23643 | 1.23643 | 1.23643 | 1.23643 |
| 24.000 | .000 | -5.00000 | 1995.54181 | 825.41649 | 1161.77493 | 1.13248 | 1.13162 | 1.13300 | 1.23643 | 1.23556 | 1.23556 | 1.23643 | 1.23643 | 1.23643 | 1.23643 | 1.23643 | 1.23643 | 1.23643 |
| GRADIENT | .00000 | .00000 | .86967 | .14854 | .20908 | .00264 | .00282 | .00272 | -.00477 | -.00459 | -.00459 | -.00477 | -.00477 | -.00477 | -.00477 | -.00477 | -.00477 | -.00477 |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M#2 | M#2 | M#2 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 | M#4 |
|----------|--------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | -5.00000 | 1578.31139 | 400.01855 | 1042.32884 | 1.18844 | 1.18472 | 1.20111 | 1.50757 | 1.51445 | 1.52148 | 1.51445 | 1.51445 | 1.51445 | 1.51445 | 1.51445 | 1.51445 | 1.51445 |
| 2.000 | .000 | -5.00000 | 1578.99117 | 400.18729 | 1042.76954 | 1.19627 | 1.20239 | 1.20890 | 1.50138 | 1.50806 | 1.51518 | 1.50138 | 1.50138 | 1.50138 | 1.50138 | 1.50138 | 1.50138 | 1.50138 |
| 4.000 | .000 | -5.00000 | 1577.32025 | 399.78399 | 1041.71767 | 1.20255 | 1.20841 | 1.21467 | 1.49834 | 1.50474 | 1.51157 | 1.49834 | 1.49834 | 1.49834 | 1.49834 | 1.49834 | 1.49834 | 1.49834 |
| 6.000 | .000 | -5.00000 | 1577.34303 | 399.79176 | 1041.73790 | 1.21115 | 1.21717 | 1.22412 | 1.49742 | 1.50398 | 1.51155 | 1.49742 | 1.49742 | 1.49742 | 1.49742 | 1.49742 | 1.49742 | 1.49742 |
| 8.000 | .000 | -5.00000 | 1578.35884 | 400.03287 | 1042.36615 | 1.21823 | 1.22193 | 1.22954 | 1.48748 | 1.49700 | 1.50527 | 1.48748 | 1.48748 | 1.48748 | 1.48748 | 1.48748 | 1.48748 | 1.48748 |
| 10.000 | .000 | -5.00000 | 1575.77289 | 399.39394 | 1040.70128 | 1.22628 | 1.22953 | 1.23767 | 1.48034 | 1.49316 | 1.50199 | 1.48034 | 1.48034 | 1.48034 | 1.48034 | 1.48034 | 1.48034 | 1.48034 |
| 12.000 | .000 | -5.00000 | 1575.64324 | 399.36381 | 1040.63841 | 1.23682 | 1.24406 | 1.25008 | 1.49193 | 1.49792 | 1.50444 | 1.49193 | 1.49193 | 1.49193 | 1.49193 | 1.49193 | 1.49193 | 1.49193 |
| 14.000 | .000 | -5.00000 | 1575.95380 | 399.44687 | 1040.83922 | 1.25028 | 1.25712 | 1.26353 | 1.48901 | 1.49639 | 1.50330 | 1.48901 | 1.48901 | 1.48901 | 1.48901 | 1.48901 | 1.48901 | 1.48901 |
| 16.000 | .000 | -5.00000 | 1575.97449 | 399.45256 | 1040.85405 | 1.25484 | 1.26412 | 1.27166 | 1.49074 | 1.49812 | 1.50509 | 1.49074 | 1.49074 | 1.49074 | 1.49074 | 1.49074 | 1.49074 | 1.49074 |
| 18.000 | .000 | -5.00000 | 1576.27609 | 399.52647 | 1041.04663 | 1.26518 | 1.27510 | 1.28219 | 1.49774 | 1.50443 | 1.51160 | 1.49774 | 1.49774 | 1.49774 | 1.49774 | 1.49774 | 1.49774 | 1.49774 |
| 20.000 | .000 | -5.00000 | 1575.81870 | 399.41241 | 1040.74942 | 1.27734 | 1.28820 | 1.29584 | 1.51308 | 1.52482 | 1.53509 | 1.51308 | 1.51308 | 1.51308 | 1.51308 | 1.51308 | 1.51308 | 1.51308 |
| 22.000 | .000 | -5.00000 | 1575.80844 | 399.41526 | 1040.75685 | 1.28272 | 1.29456 | 1.30278 | 1.53079 | 1.54367 | 1.55261 | 1.53079 | 1.53079 | 1.53079 | 1.53079 | 1.53079 | 1.53079 | 1.53079 |
| 24.000 | .000 | -5.00000 | 1576.42549 | 399.57412 | 1041.17079 | 1.28882 | 1.30077 | 1.30868 | 1.53772 | 1.55073 | 1.55936 | 1.53772 | 1.53772 | 1.53772 | 1.53772 | 1.53772 | 1.53772 | 1.53772 |
| GRADIENT | .00000 | .00000 | -.24779 | -.05863 | -.15279 | .00353 | .00342 | .00339 | -.00243 | -.00243 | -.00243 | -.00243 | -.00243 | -.00243 | -.00243 | -.00243 | -.00243 | -.00243 |

TABLATED DATA - 0A161 (ARC 11-97-87-894)
ARC 11-97-87-094 0A161 ORBITER + RAKES

(FE7X09) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y1
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.06

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M52 | M54 | M54 | M54 |
|----------|--------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | 1.000 | -5.00000 | 1642.42418 | 309.79875 | 1066.72121 | 1.22666 | 1.24230 | 1.25886 | 1.60807 | 1.62583 | 1.64483 |
| 2.000 | 2.000 | -5.00000 | 1650.93587 | 310.08348 | 1067.72229 | 1.23666 | 1.25208 | 1.26685 | 1.60464 | 1.62208 | 1.63935 |
| 4.000 | 4.000 | -5.00000 | 1650.24094 | 309.94633 | 1067.23003 | 1.24266 | 1.25777 | 1.27267 | 1.60145 | 1.61851 | 1.63538 |
| 6.000 | 6.000 | -5.00000 | 1649.94432 | 309.89394 | 1067.03963 | 1.25041 | 1.26388 | 1.27838 | 1.60216 | 1.61728 | 1.63373 |
| 8.000 | 8.000 | -5.00000 | 1650.82304 | 310.06269 | 1067.63071 | 1.25037 | 1.27000 | 1.28478 | 1.59900 | 1.61103 | 1.62766 |
| 10.000 | 10.000 | -5.00000 | 1650.44762 | 309.98747 | 1067.33171 | 1.25790 | 1.27891 | 1.29235 | 1.58838 | 1.61191 | 1.62701 |
| 12.000 | 12.000 | -5.00000 | 1651.41377 | 310.17471 | 1068.03642 | 1.27641 | 1.29127 | 1.30320 | 1.60433 | 1.62099 | 1.63439 |
| 14.000 | 14.000 | -5.00000 | 1651.02856 | 310.09678 | 1067.76807 | 1.29088 | 1.30411 | 1.31711 | 1.61537 | 1.63022 | 1.64493 |
| 16.000 | 16.000 | -5.00000 | 1650.14075 | 309.92978 | 1067.19304 | 1.29196 | 1.31012 | 1.32279 | 1.61320 | 1.63355 | 1.64779 |
| 18.000 | 18.000 | -5.00000 | 1650.84254 | 310.06318 | 1067.65240 | 1.29748 | 1.31640 | 1.32942 | 1.62047 | 1.64170 | 1.65637 |
| 20.000 | 20.000 | -5.00000 | 1651.38724 | 310.16493 | 1068.00276 | 1.30377 | 1.32343 | 1.33675 | 1.63185 | 1.65399 | 1.66902 |
| 22.000 | 22.000 | -5.00000 | 1651.57825 | 310.20011 | 1068.12389 | 1.31903 | 1.33794 | 1.35154 | 1.63800 | 1.65924 | 1.67457 |
| 24.000 | 24.000 | -5.00000 | 1651.58163 | 310.20077 | 1068.12617 | 1.33001 | 1.34714 | 1.36121 | 1.65113 | 1.67049 | 1.69628 |
| GRADIENT | | .00000 | .20419 | .03840 | .13221 | .00400 | .00387 | .00342 | -.00165 | -.00183 | -.00235 |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M52 | M54 | M54 | M54 |
|----------|--------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 2.000 | 1.000 | -5.00000 | 1847.06216 | 235.97826 | 1095.04305 | 1.31753 | 1.35131 | 1.37971 | 1.79221 | 1.83269 | 1.86682 |
| 4.000 | 2.000 | -5.00000 | 1848.00623 | 236.10478 | 1095.63014 | 1.32587 | 1.35758 | 1.38492 | 1.78402 | 1.82178 | 1.85451 |
| 6.000 | 4.000 | -5.00000 | 1847.42177 | 236.02850 | 1095.27618 | 1.33547 | 1.36837 | 1.39456 | 1.77902 | 1.81880 | 1.84920 |
| 8.000 | 6.000 | -5.00000 | 1846.95721 | 235.96262 | 1094.97044 | 1.34519 | 1.37598 | 1.40050 | 1.78054 | 1.81695 | 1.84605 |
| 10.000 | 8.000 | -5.00000 | 1846.99805 | 235.96757 | 1094.99344 | 1.35496 | 1.38774 | 1.41280 | 1.77725 | 1.81593 | 1.84546 |
| 12.000 | 10.000 | -5.00000 | 1846.51515 | 235.89915 | 1094.67596 | 1.36191 | 1.39802 | 1.41917 | 1.77330 | 1.81565 | 1.84486 |
| 14.000 | 12.000 | -5.00000 | 1846.62762 | 235.90250 | 1094.63142 | 1.37711 | 1.40641 | 1.42855 | 1.79412 | 1.82860 | 1.85472 |
| 16.000 | 14.000 | -5.00000 | 1846.02921 | 235.83774 | 1094.33096 | 1.38837 | 1.41402 | 1.43571 | 1.81006 | 1.84066 | 1.86631 |
| 18.000 | 16.000 | -5.00000 | 1846.35066 | 235.87904 | 1094.59261 | 1.40013 | 1.42993 | 1.44944 | 1.81136 | 1.84637 | 1.86987 |
| 20.000 | 18.000 | -5.00000 | 1846.85618 | 235.94551 | 1094.89108 | 1.40417 | 1.43644 | 1.45676 | 1.80970 | 1.84756 | 1.87147 |
| 22.000 | 20.000 | -5.00000 | 1847.20575 | 235.98882 | 1095.03203 | 1.41338 | 1.44432 | 1.46589 | 1.81481 | 1.85105 | 1.87640 |
| 24.000 | 24.000 | -5.00000 | 1846.00113 | 235.83439 | 1094.37541 | 1.42325 | 1.45419 | 1.47582 | 1.80795 | 1.84387 | 1.86922 |
| GRADIENT | | .00000 | .08990 | .01256 | .05823 | .00449 | .00427 | .00202 | -.00367 | -.00367 | -.00443 |

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OF POOR QUALITY

TABLULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RMKES.

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -5.000 ELEVON = .000
AILLON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00.

| MACH = 3.000 | BETA | PT | P | QCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|--------------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA .000 | -5.00000 | 1935.56339 | 51.10074 | 565.22348 | 1.48663 | 1.61230 | 1.70921 | 2.30776 | 2.48238 | 2.61851 |
| 2.000 | -5.00000 | 1935.15036 | 51.09178 | 565.12438 | 1.49766 | 1.62225 | 1.72146 | 2.31745 | 2.49044 | 2.62863 |
| 4.000 | -5.00000 | 1935.07675 | 51.11307 | 565.35988 | 1.51595 | 1.63913 | 1.73288 | 2.31610 | 2.48578 | 2.61616 |
| 6.000 | -5.00000 | 1935.50783 | 51.12482 | 565.48977 | 1.54450 | 1.66347 | 1.75473 | 2.36661 | 2.53158 | 2.65926 |
| 8.000 | -5.00000 | 1935.47981 | 51.12357 | 565.47600 | 1.57398 | 1.68940 | 1.78941 | 2.40309 | 2.55774 | 2.67384 |
| 10.000 | -5.00000 | 1935.30977 | 51.12127 | 565.45056 | 1.60189 | 1.70802 | 1.78610 | 2.42445 | 2.57262 | 2.68135 |
| 12.000 | -5.00000 | 1935.00462 | 51.11145 | 565.34191 | 1.61943 | 1.72292 | 1.79819 | 2.43903 | 2.58180 | 2.68630 |
| 14.000 | -5.00000 | 1935.75789 | 51.09733 | 565.18574 | 1.62835 | 1.72782 | 1.80253 | 2.43889 | 2.57558 | 2.67887 |
| 16.000 | -5.00000 | 1935.34929 | 51.08156 | 565.01133 | 1.64621 | 1.74312 | 1.81626 | 2.44333 | 2.57354 | 2.67406 |
| 18.000 | -5.00000 | 1935.29300 | 51.07934 | 564.98677 | 1.66841 | 1.76611 | 1.83590 | 2.47464 | 2.60838 | 2.70559 |
| 20.000 | -5.00000 | 1934.35158 | 51.05967 | 564.76923 | 1.68952 | 1.78492 | 1.85390 | 2.45106 | 2.58191 | 2.67875 |
| 22.000 | -5.00000 | 1934.81860 | 51.07553 | 564.94459 | 1.67697 | 1.77096 | 1.84200 | 2.46334 | 2.58056 | 2.67721 |
| 24.000 | -5.00000 | 1934.05580 | 51.04761 | 564.63382 | 1.67924 | 1.76933 | 1.84010 | 2.46570 | 2.58805 | 2.68464 |
| GRADIENT | .00000 | .12834 | .00308 | .03410 | .00733 | .00671 | .00592 | .00209 | .00085 | .00059 |

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00.

| MACH = 3.500 | BETA | PT | P | QCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|--------------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA .000 | -5.00000 | 2547.37388 | 33.36888 | 508.69840 | 1.45181 | 1.61050 | 1.73571 | 2.38333 | 2.61364 | 2.79803 |
| 2.000 | -5.00000 | 2547.81790 | 33.37489 | 508.70000 | 1.46206 | 1.62509 | 1.74853 | 2.38919 | 2.61487 | 2.79873 |
| 4.000 | -5.00000 | 2546.94196 | 33.36394 | 508.53317 | 1.48768 | 1.64814 | 1.77998 | 2.41382 | 2.64584 | 2.82599 |
| 6.000 | -5.00000 | 2547.50006 | 33.37128 | 508.64510 | 1.50723 | 1.66175 | 1.77654 | 2.41508 | 2.63688 | 2.80362 |
| 8.000 | -5.00000 | 2547.17203 | 33.36708 | 508.58098 | 1.55454 | 1.68945 | 1.80563 | 2.49016 | 2.69960 | 2.85464 |
| 10.000 | -5.00000 | 2551.36157 | 33.42099 | 509.40276 | 1.57921 | 1.71681 | 1.82073 | 2.49980 | 2.69726 | 2.84782 |
| 12.000 | -5.00000 | 2555.54724 | 33.47640 | 510.24725 | 1.60559 | 1.73905 | 1.83831 | 2.54187 | 2.73111 | 2.87657 |
| 14.000 | -5.00000 | 2558.82321 | 33.51909 | 510.99791 | 1.62877 | 1.75637 | 1.85334 | 2.54187 | 2.73111 | 2.87657 |
| 16.000 | -5.00000 | 2563.66443 | 33.58292 | 511.37092 | 1.64945 | 1.77379 | 1.86950 | 2.52650 | 2.70734 | 2.84313 |
| 18.000 | -5.00000 | 2567.71115 | 33.63562 | 512.67409 | 1.65845 | 1.78417 | 1.87839 | 2.51751 | 2.69310 | 2.82551 |
| 20.000 | -5.00000 | 2572.38071 | 33.69739 | 513.61562 | 1.68243 | 1.80467 | 1.89788 | 2.56948 | 2.74157 | 2.87355 |
| 22.000 | -5.00000 | 2578.11011 | 33.77192 | 514.75153 | 1.67125 | 1.79263 | 1.88373 | 2.58222 | 2.74157 | 2.81868 |
| 24.000 | -5.00000 | 2578.93777 | 33.78332 | 514.92329 | 1.68986 | 1.80403 | 1.89530 | 2.58323 | 2.75013 | 2.81995 |
| GRADIENT | .00000 | -.10779 | -.00123 | -.01880 | .00897 | .00941 | .00862 | .00762 | .00608 | .00639 |

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 986.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

MACH = 1.550 ALPHA = .000
RV/L = 3.05 GRADIENT INTERVAL = -5.08/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|-------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | -2.00000 | 1574.43616 | 398.83030 | 1039.23260 | 1.12394 | 1.13068 | 1.13755 | 1.46462 | 1.47192 | 1.47857 |
| 2.000 | .000 | -2.00000 | 1573.92513 | 398.70513 | 1038.90645 | 1.13119 | 1.13766 | 1.14439 | 1.45922 | 1.46621 | 1.47350 |
| 4.000 | .000 | -2.00000 | 1573.05887 | 398.48754 | 1038.33949 | 1.13810 | 1.14474 | 1.15009 | 1.45417 | 1.46133 | 1.46712 |
| 6.000 | .000 | -2.00000 | 1573.57761 | 398.62070 | 1038.68646 | 1.14680 | 1.15307 | 1.15870 | 1.45122 | 1.45798 | 1.46405 |
| 8.000 | .000 | -2.00000 | 1574.31830 | 398.81203 | 1039.18500 | 1.15338 | 1.15765 | 1.16313 | 1.45255 | 1.45715 | 1.46305 |
| 10.000 | .000 | -2.00000 | 1574.64066 | 398.88485 | 1039.37476 | 1.15552 | 1.16377 | 1.17073 | 1.44274 | 1.45158 | 1.45908 |
| 12.000 | .000 | -2.00000 | 1574.84332 | 398.93706 | 1039.51079 | 1.16573 | 1.17386 | 1.18121 | 1.43780 | 1.44650 | 1.45439 |
| 14.000 | .000 | -2.00000 | 1574.59084 | 398.87534 | 1039.34998 | 1.18373 | 1.18778 | 1.19335 | 1.44630 | 1.45065 | 1.45663 |
| 16.000 | .000 | -2.00000 | 1575.31898 | 399.87534 | 1039.83284 | 1.19357 | 1.19900 | 1.20400 | 1.44717 | 1.45542 | 1.46179 |
| 18.000 | .000 | -2.00000 | 1575.34929 | 399.06569 | 1039.84596 | 1.20180 | 1.20950 | 1.21545 | 1.45799 | 1.46776 | 1.47539 |
| 20.000 | .000 | -2.00000 | 1574.16409 | 398.76549 | 1039.06374 | 1.21105 | 1.22024 | 1.22733 | 1.46328 | 1.47461 | 1.48240 |
| 22.000 | .000 | -2.00000 | 1574.15891 | 398.76766 | 1039.06938 | 1.21834 | 1.22889 | 1.23612 | 1.47224 | 1.48330 | 1.49057 |
| 24.000 | .000 | -2.00000 | 1574.84804 | 398.94400 | 1039.52860 | 1.22920 | 1.23949 | 1.24622 | 1.48330 | 1.49057 | 1.49657 |
| GRADIENT | | .00000 | -.34433 | -.08569 | -.22328 | .00354 | .00351 | .00314 | -.00261 | -.00265 | -.00306 |

MACH = 1.750 ALPHA = .000
RV/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|-------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | .000 | -2.00000 | 1650.94153 | 310.07585 | 1067.69946 | 1.17591 | 1.19172 | 1.20638 | 1.55662 | 1.57433 | 1.59083 |
| 2.000 | .000 | -2.00000 | 1652.84775 | 310.44413 | 1068.96416 | 1.18381 | 1.19851 | 1.21363 | 1.55196 | 1.56951 | 1.58525 |
| 4.000 | .000 | -2.00000 | 1653.85585 | 310.63168 | 1069.60992 | 1.18762 | 1.20202 | 1.21635 | 1.55334 | 1.56843 | 1.58551 |
| 6.000 | .000 | -2.00000 | 1654.30829 | 310.72412 | 1069.92824 | 1.19411 | 1.20756 | 1.22103 | 1.55518 | 1.57021 | 1.58532 |
| 8.000 | .000 | -2.00000 | 1653.79941 | 310.62094 | 1069.57295 | 1.20063 | 1.21369 | 1.22626 | 1.55363 | 1.56819 | 1.58227 |
| 10.000 | .000 | -2.00000 | 1654.31114 | 310.72391 | 1069.92749 | 1.20347 | 1.22121 | 1.23465 | 1.54535 | 1.56508 | 1.58009 |
| 12.000 | .000 | -2.00000 | 1655.30827 | 310.90964 | 1070.56705 | 1.21497 | 1.23373 | 1.24678 | 1.54381 | 1.56463 | 1.57917 |
| 14.000 | .000 | -2.00000 | 1655.65390 | 310.97398 | 1070.78859 | 1.23342 | 1.24418 | 1.25496 | 1.56313 | 1.57510 | 1.58713 |
| 16.000 | .000 | -2.00000 | 1654.93356 | 310.83946 | 1070.32539 | 1.24220 | 1.26284 | 1.26424 | 1.56883 | 1.58069 | 1.59341 |
| 18.000 | .000 | -2.00000 | 1655.58514 | 310.46767 | 1070.76698 | 1.24463 | 1.26047 | 1.27133 | 1.56400 | 1.58161 | 1.59372 |
| 20.000 | .000 | -2.00000 | 1657.05319 | 311.24283 | 1071.71434 | 1.25654 | 1.27387 | 1.28520 | 1.56294 | 1.58216 | 1.59475 |
| 22.000 | .000 | -2.00000 | 1657.68335 | 311.35872 | 1072.11337 | 1.27269 | 1.28897 | 1.30122 | 1.56639 | 1.58439 | 1.59797 |
| 24.000 | .000 | -2.00000 | 1657.51363 | 311.32766 | 1072.00642 | 1.28028 | 1.29583 | 1.30802 | 1.57086 | 1.58805 | 1.60155 |
| GRADIENT | | .00000 | .73608 | .13871 | .47761 | .00293 | .00258 | .00249 | -.00082 | -.00122 | -.00133 |

(FE7804) (02 AUG 75)

TABULATED DATA - OA161 (ARC 1:-97-87-094)
 ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.174

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | BETA | PT | P | OCOMP | M42 | M52 | M52 | M44 | M54 | M64 |
|--------------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | .0000 | 1845.93443 | 235.90358 | 1094.69649 | 1.26119 | 1.29340 | 1.32080 | 1.73169 | 1.76891 | 1.80265 |
| .000 | -2.00000 | 1846.41615 | 235.83478 | 1094.37723 | 1.26923 | 1.30183 | 1.32776 | 1.72736 | 1.76590 | 1.79577 |
| 2.000 | -2.00000 | 1846.47842 | 235.84348 | 1094.41763 | 1.28050 | 1.31097 | 1.33769 | 1.72071 | 1.75833 | 1.78811 |
| 4.000 | -2.00000 | 1847.01898 | 235.91540 | 1094.75133 | 1.29078 | 1.32153 | 1.34543 | 1.72376 | 1.75986 | 1.78807 |
| 6.000 | -2.00000 | 1846.99838 | 235.91268 | 1094.73875 | 1.30306 | 1.33195 | 1.35414 | 1.72553 | 1.75935 | 1.78544 |
| 8.000 | -2.00000 | 1846.95099 | 235.91120 | 1094.73189 | 1.31373 | 1.34347 | 1.36475 | 1.72616 | 1.76087 | 1.78583 |
| 10.000 | -2.00000 | 1846.64996 | 235.86971 | 1094.53934 | 1.31855 | 1.35115 | 1.37191 | 1.72651 | 1.76452 | 1.78883 |
| 12.000 | -2.00000 | 1846.59160 | 235.85966 | 1094.49269 | 1.33741 | 1.36201 | 1.38198 | 1.74674 | 1.77548 | 1.79930 |
| 14.000 | -2.00000 | 1847.17349 | 235.94132 | 1094.87161 | 1.35034 | 1.37304 | 1.39252 | 1.75138 | 1.77784 | 1.80061 |
| 16.000 | -2.00000 | 1846.84877 | 235.89649 | 1094.66362 | 1.36564 | 1.38290 | 1.40079 | 1.74358 | 1.77522 | 1.79604 |
| 18.000 | -2.00000 | 1846.81461 | 235.88847 | 1094.62637 | 1.36421 | 1.39274 | 1.41152 | 1.74482 | 1.77786 | 1.79957 |
| 20.000 | -2.00000 | 1847.35541 | 235.95847 | 1094.95123 | 1.37371 | 1.40115 | 1.42099 | 1.73828 | 1.76986 | 1.79276 |
| 22.000 | -2.00000 | 1846.02296 | 235.78710 | 1094.15599 | 1.39736 | 1.42470 | 1.44346 | 1.74887 | 1.77941 | 1.80097 |
| 24.000 | -2.00000 | 1846.11399 | 235.78710 | 1094.15599 | 1.39736 | 1.42470 | 1.44346 | 1.74887 | 1.77941 | 1.80097 |
| GRADIENT | .00000 | -.11399 | -.01502 | -.06971 | .00483 | .00439 | .00422 | -.00274 | -.00334 | -.00363 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | BETA | PT | P | OCOMP | M42 | M52 | M52 | M44 | M54 | M64 |
|--------------|----------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| ALPHA | .000 | 2060.32037 | 178.19294 | 1069.48225 | 1.39010 | 1.44885 | 1.48898 | 1.93057 | 2.00343 | 2.05354 |
| .000 | -2.00000 | 2059.98480 | 178.18426 | 1069.31013 | 1.39827 | 1.45710 | 1.49810 | 1.92527 | 1.98785 | 2.04877 |
| 2.000 | -2.00000 | 2059.56003 | 178.12785 | 1069.09161 | 1.40670 | 1.46069 | 1.50229 | 1.92481 | 1.98119 | 2.04264 |
| 4.000 | -2.00000 | 2060.01712 | 178.16692 | 1069.32610 | 1.41399 | 1.46496 | 1.50343 | 1.93429 | 1.98703 | 2.04464 |
| 6.000 | -2.00000 | 2060.01712 | 178.16692 | 1069.32610 | 1.42369 | 1.47382 | 1.50868 | 1.93588 | 1.99740 | 2.04639 |
| 8.000 | -2.00000 | 2060.24548 | 178.18648 | 1069.44347 | 1.44048 | 1.48635 | 1.52131 | 1.94840 | 2.00461 | 2.04765 |
| 10.000 | -2.00000 | 2060.24548 | 178.18648 | 1069.44347 | 1.44509 | 1.48913 | 1.52147 | 1.94808 | 2.00070 | 2.04404 |
| 12.000 | -2.00000 | 2060.47052 | 178.20613 | 1069.56143 | 1.45944 | 1.49896 | 1.52844 | 1.95326 | 2.00267 | 2.03875 |
| 14.000 | -2.00000 | 2060.56393 | 178.21377 | 1069.60732 | 1.46328 | 1.50760 | 1.53637 | 1.95138 | 1.99910 | 2.03415 |
| 16.000 | -2.00000 | 2060.33616 | 178.16844 | 1069.33524 | 1.48130 | 1.52197 | 1.54991 | 1.95808 | 2.00734 | 2.04130 |
| 18.000 | -2.00000 | 2060.44346 | 178.20315 | 1069.54353 | 1.48211 | 1.52389 | 1.55108 | 1.92920 | 1.97921 | 2.01187 |
| 20.000 | -2.00000 | 2060.15353 | 178.17854 | 1069.39586 | 1.52622 | 1.56780 | 1.59601 | 1.92079 | 2.05776 | 2.09211 |
| 22.000 | -2.00000 | 2060.04486 | 178.16928 | 1069.34826 | 1.44059 | 1.44454 | 1.47428 | 1.73544 | 1.77940 | 1.81335 |
| 24.000 | -2.00000 | 2060.04486 | 178.16928 | 1069.34826 | 1.44059 | 1.44454 | 1.47428 | 1.73544 | 1.77940 | 1.81335 |
| GRADIENT | .00000 | -.19008 | -.01627 | -.09767 | .00415 | .00296 | .00333 | -.00144 | -.00306 | -.00272 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

(FE7X04) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
AILRON = .000 BOELAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|--------------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA .000 | -2.00000 | 1497.77222 | 87.59769 | 659.27209 | 1.38197 | 1.47285 | 1.52952 | 2.04056 | 2.14945 | 2.21831 |
| 2.000 | -2.00000 | 1497.76450 | 87.59732 | 659.26928 | 1.39171 | 1.47475 | 1.52859 | 2.02022 | 2.12708 | 2.19689 |
| 4.000 | -2.00000 | 1497.76714 | 87.59741 | 659.26801 | 1.40823 | 1.48502 | 1.54121 | 2.02738 | 2.12584 | 2.19851 |
| 6.000 | -2.00000 | 1497.74226 | 87.59619 | 659.26081 | 1.42430 | 1.49928 | 1.55209 | 2.03784 | 2.13379 | 2.20190 |
| 8.000 | -2.00000 | 1497.75372 | 87.59682 | 659.26557 | 1.44386 | 1.51333 | 1.56167 | 2.05882 | 2.14685 | 2.20906 |
| 10.000 | -2.00000 | 1497.67010 | 87.59167 | 659.22676 | 1.45133 | 1.51558 | 1.56306 | 2.04790 | 2.12956 | 2.19028 |
| 12.000 | -2.00000 | 1498.01534 | 87.61195 | 659.37941 | 1.47330 | 1.56221 | 1.58027 | 2.07465 | 2.15477 | 2.21120 |
| 14.000 | -2.00000 | 1494.68498 | 87.41497 | 657.89593 | 1.48723 | 1.56675 | 1.58625 | 2.08372 | 2.15937 | 2.21240 |
| 16.000 | -2.00000 | 1494.60895 | 87.41100 | 657.85705 | 1.49502 | 1.55197 | 1.59158 | 2.07365 | 2.14553 | 2.19514 |
| 18.000 | -2.00000 | 1495.08678 | 87.43912 | 658.07867 | 1.50817 | 1.56327 | 1.60178 | 2.07722 | 2.14650 | 2.19514 |
| 20.000 | -2.00000 | 1494.25999 | 87.38984 | 657.70778 | 1.51965 | 1.57328 | 1.61058 | 2.07600 | 2.14309 | 2.18995 |
| 22.000 | -2.00000 | 1494.70457 | 87.41660 | 657.90915 | 1.53009 | 1.58146 | 1.61951 | 2.06918 | 2.13301 | 2.18048 |
| 24.000 | -2.00000 | 1494.94550 | 87.43099 | 658.01747 | 1.55017 | 1.59945 | 1.63991 | 2.08478 | 2.14590 | 2.19625 |
| GRADIENT | .00000 | -.00127 | -.00007 | -.00052 | .00406 | .00304 | .00317 | -.00329 | -.00430 | -.00495 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|--------------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA .000 | -2.00000 | 1942.79845 | 51.29598 | 567.38300 | 1.44510 | 1.57577 | 1.66673 | 2.24611 | 2.42654 | 2.55356 |
| 2.000 | -2.00000 | 1939.95528 | 51.22303 | 566.57606 | 1.45445 | 1.58537 | 1.67633 | 2.25796 | 2.43887 | 2.56604 |
| 4.000 | -2.00000 | 1937.25540 | 51.15163 | 565.78629 | 1.46218 | 1.58874 | 1.67720 | 2.23847 | 2.41289 | 2.53381 |
| 6.000 | -2.00000 | 1932.01018 | 51.02006 | 564.33104 | 1.48934 | 1.61314 | 1.69638 | 2.28964 | 2.46032 | 2.57624 |
| 8.000 | -2.00000 | 1931.75623 | 51.01216 | 564.24371 | 1.51435 | 1.62751 | 1.70514 | 2.28596 | 2.44011 | 2.54679 |
| 10.000 | -2.00000 | 1932.19310 | 51.02143 | 564.34621 | 1.53960 | 1.64637 | 1.72202 | 2.31254 | 2.45933 | 2.56318 |
| 12.000 | -2.00000 | 1932.51784 | 51.02796 | 564.41837 | 1.56531 | 1.65776 | 1.73087 | 2.31213 | 2.45000 | 2.54956 |
| 14.000 | -2.00000 | 1931.30799 | 50.98654 | 563.96030 | 1.58149 | 1.67836 | 1.74809 | 2.34929 | 2.48066 | 2.57569 |
| 16.000 | -2.00000 | 1932.10713 | 51.00635 | 564.17945 | 1.60330 | 1.69777 | 1.76258 | 2.36016 | 2.48762 | 2.57569 |
| 18.000 | -2.00000 | 1931.43526 | 50.99056 | 564.00479 | 1.61868 | 1.70870 | 1.77062 | 2.35148 | 2.47178 | 2.55496 |
| 20.000 | -2.00000 | 1931.86768 | 50.99784 | 564.08523 | 1.63770 | 1.72524 | 1.78639 | 2.37082 | 2.48771 | 2.56976 |
| 22.000 | -2.00000 | 1932.01346 | 51.00587 | 564.17412 | 1.63960 | 1.72431 | 1.78461 | 2.34785 | 2.45991 | 2.54007 |
| 24.000 | -2.00000 | 1931.72012 | 50.99929 | 564.10132 | 1.64600 | 1.72738 | 1.79010 | 2.34485 | 2.45209 | 2.53514 |
| GRADIENT | .00000 | -1.38574 | -.03609 | -.39918 | .00427 | .00349 | .00262 | -.00191 | -.00341 | -.00496 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRPF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -2.0000 ELEVON = .000.
 AILTRON = .0000 BOFLAP = -7.170

PARAMETRIC DATA

RVL = 1.99 GRADIENT INTERVAL = -5.00' 5.00

| MACH = | 3.500 | ALPHA | BETA | PT | P | OCOMP | M42 | M62 | M44 | M54 | M64 |
|----------|--------|----------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| | -.0000 | -2.00000 | 2609.07135 | 34.16512 | 520.74471 | 1.44575 | 1.62174 | 1.74281 | 2.33880 | 2.59095 | 2.76616 |
| | 2.000 | -2.00000 | 2609.47937 | 34.18432 | 521.03742 | 1.45852 | 1.63242 | 1.75534 | 2.35277 | 2.60189 | 2.78058 |
| | 4.000 | -2.00000 | 2610.52898 | 34.19798 | 521.24570 | 1.47420 | 1.64355 | 1.76128 | 2.34528 | 2.58562 | 2.75498 |
| | 6.000 | -2.00000 | 2614.11072 | 34.24500 | 521.96236 | 1.50277 | 1.66457 | 1.77623 | 2.39380 | 2.62476 | 2.78610 |
| | 10.000 | -2.00000 | 2619.19357 | 34.31230 | 522.38805 | 1.53983 | 1.68853 | 1.79501 | 2.42997 | 2.63733 | 2.79029 |
| | 12.000 | -2.00000 | 2615.71823 | 34.26563 | 522.27869 | 1.56327 | 1.71296 | 1.81519 | 2.45811 | 2.66209 | 2.80876 |
| | 14.000 | -2.00000 | 2617.89397 | 34.29432 | 522.71407 | 1.58752 | 1.73324 | 1.83142 | 2.47649 | 2.66819 | 2.80804 |
| | 16.000 | -2.00000 | 2615.78174 | 34.26626 | 522.28640 | 1.62481 | 1.75449 | 1.84624 | 2.50601 | 2.68897 | 2.81940 |
| | 18.000 | -2.00000 | 2617.10403 | 34.26626 | 522.28640 | 1.63847 | 1.76468 | 1.84974 | 2.47234 | 2.64729 | 2.76600 |
| | 20.000 | -2.00000 | 2615.61575 | 34.26406 | 522.25275 | 1.65726 | 1.77773 | 1.86002 | 2.47026 | 2.63580 | 2.74958 |
| | 22.000 | -2.00000 | 2619.49899 | 34.31592 | 523.04321 | 1.67725 | 1.79477 | 1.87601 | 2.49323 | 2.65468 | 2.76694 |
| | 24.000 | -2.00000 | 2624.04565 | 34.37497 | 523.94328 | 1.67709 | 1.79087 | 1.87201 | 2.47346 | 2.63601 | 2.74666 |
| GRADIENT | .00000 | .00000 | .61442 | .00822 | .12524 | .00711 | .00545 | .00477 | .46808 | -.00162 | -.00279 |

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 OF POOR QUALITY

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6600 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = .000 ELEVON = .000
 ALLRGN = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | MM2 | MS2 | MSR | MSH | MSH | MSH |
|----------|-------|--------|------------|------------|-----------|--------|---------|---------|---------|---------|---------|
| .500 | .000 | .00000 | 2636.13434 | 2067.16983 | 568.96491 | .98152 | .58812 | .58183 | .65404 | .65360 | .65379 |
| 2.000 | .000 | .00000 | 2636.45282 | 2067.42532 | 569.02750 | .97980 | .57960 | .57956 | .64783 | .64811 | .64788 |
| 4.000 | .000 | .00000 | 2638.36844 | 2068.84036 | 569.52898 | .98243 | .58195 | .58155 | .64980 | .64944 | .64944 |
| 6.000 | .000 | .00000 | 2635.83572 | 2067.04514 | 568.79059 | .98066 | .58043 | .58009 | .64304 | .64273 | .64273 |
| 8.000 | .000 | .00000 | 2635.20016 | 2067.24875 | 568.95142 | .98400 | .58429 | .58437 | .64485 | .64494 | .64494 |
| 10.000 | .000 | .00000 | 2635.93494 | 2067.10458 | 568.83035 | .98789 | .58850 | .58815 | .64302 | .64270 | .64270 |
| 12.000 | .000 | .00000 | 2635.46613 | 2066.67661 | 568.67661 | .99361 | .59401 | .59319 | .64447 | .64470 | .64471 |
| 14.000 | .000 | .00000 | 2636.11768 | 2067.19876 | 568.91891 | .60234 | .60247 | .60206 | .64767 | .64780 | .64741 |
| 16.000 | .000 | .00000 | 2636.08533 | 2067.16296 | 568.92236 | .61489 | .61485 | .61437 | .65179 | .65181 | .65135 |
| 18.000 | .000 | .00000 | 2638.61063 | 2068.99408 | 569.61655 | .62876 | .62876 | .62830 | .65778 | .65778 | .65734 |
| 20.000 | .000 | .00000 | 2634.47891 | 2066.12332 | 568.35559 | .63838 | .63870 | .63933 | .66194 | .66162 | .66255 |
| 22.000 | .000 | .00000 | 2630.10681 | 2062.54417 | 567.55264 | .64972 | .65120 | .65207 | .66769 | .66769 | .66854 |
| 24.000 | .000 | .00000 | 2629.67941 | 2061.72964 | 567.94977 | .66407 | .66743 | .66778 | .67518 | .67186 | .67553 |
| GRADIENT | | .00000 | .55853 | .41762 | .14089 | .00024 | -.00004 | -.00007 | -.00080 | -.00106 | -.00109 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | MM2 | MS2 | MSR | MSH | MSH | MSH |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .900 | .000 | .00000 | 2113.98108 | 1249.92923 | 864.05188 | .78837 | .78836 | .78804 | .93645 | .93645 | .93617 |
| 2.000 | .000 | .00000 | 2112.05286 | 1248.77386 | 863.27899 | .78028 | .78058 | .77991 | .92482 | .92482 | .92422 |
| 4.000 | .000 | .00000 | 2118.18839 | 1252.35219 | 865.83621 | .78594 | .78603 | .78591 | .91917 | .91914 | .91914 |
| 6.000 | .000 | .00000 | 2114.64374 | 1250.29912 | 864.34464 | .78515 | .78530 | .78518 | .90678 | .90682 | .90681 |
| 8.000 | .000 | .00000 | 2110.03122 | 1247.57364 | 862.45758 | .78671 | .78716 | .78720 | .89672 | .89712 | .89716 |
| 10.000 | .000 | .00000 | 2112.73351 | 1249.11789 | 863.61572 | .75500 | .79512 | .79480 | .89406 | .89406 | .89376 |
| 12.000 | .000 | .00000 | 2114.69836 | 1250.25999 | 864.43839 | .80616 | .80602 | .80616 | .89663 | .89670 | .89683 |
| 14.000 | .000 | .00000 | 2117.13947 | 1251.72624 | 865.41324 | .81880 | .81887 | .81898 | .89791 | .89797 | .89800 |
| 16.000 | .000 | .00000 | 2116.02139 | 1251.05811 | 864.96329 | .82997 | .83030 | .83018 | .89596 | .89596 | .89616 |
| 18.000 | .000 | .00000 | 2113.29510 | 1249.47339 | 863.82172 | .84463 | .84531 | .84532 | .89942 | .89942 | .89942 |
| 20.000 | .000 | .00000 | 2111.35150 | 1248.25399 | 863.10052 | .86378 | .86465 | .86444 | .90651 | .90736 | .90715 |
| 22.000 | .000 | .00000 | 2110.78241 | 1247.85742 | 862.92499 | .88600 | .88624 | .88659 | .91637 | .91637 | .91672 |
| 24.000 | .000 | .00000 | 2113.14288 | 1249.38358 | 863.75931 | .90555 | .90819 | .90886 | .92276 | .92535 | .92602 |
| GRADIENT | | .00000 | 1.05184 | .60574 | .44609 | -.00061 | -.00058 | -.00053 | -.00432 | -.00430 | -.00426 |

(FE7X051 (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-09#)
ARC 11-97-87-09# 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

MACH = 1.200 RN/L = 4 27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|--------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| .0000 | .000 | .00000 | 2003.78401 | 868.63579 | 1166.30751 | .91850 | .91628 | .91612 | 1.09452 | 1.09432 | 1.09418 |
| 2.000 | 2.000 | .00000 | 2006.93002 | 827.95351 | 1165.34581 | .92105 | .92158 | .92115 | 1.09695 | 1.09737 | 1.09705 |
| 4.000 | 4.000 | .00000 | 2006.95340 | 827.74990 | 1165.05822 | .92243 | .92261 | .92287 | 1.07783 | 1.07818 | 1.07863 |
| 6.000 | 6.000 | .00000 | 2012.21327 | 829.46896 | 1167.47879 | .92998 | .93061 | .93103 | 1.07998 | 1.07998 | 1.08035 |
| 8.000 | 8.000 | .00000 | 2011.68602 | 829.32992 | 1167.27747 | .93590 | .93629 | .93710 | 1.08324 | 1.08361 | 1.08435 |
| 10.000 | 10.000 | .00000 | 2012.05740 | 829.42208 | 1167.41281 | .94301 | .94301 | .94356 | 1.10969 | 1.10987 | 1.11038 |
| 12.000 | 12.000 | .00000 | 2012.68660 | 829.63939 | 1167.71857 | .95360 | .95377 | .95385 | 1.12966 | 1.13000 | 1.13008 |
| 14.000 | 14.000 | .00000 | 2012.78561 | 829.14474 | 1167.79337 | .96453 | .96447 | .96453 | 1.13196 | 1.13191 | 1.13197 |
| 16.000 | 16.000 | .00000 | 2011.04118 | 829.69245 | 1167.02246 | .96968 | .97957 | .97960 | 1.13940 | 1.13929 | 1.13932 |
| 18.000 | 18.000 | .00000 | 2012.20630 | 829.51370 | 1167.54176 | .99862 | .99882 | .99899 | 1.14695 | 1.14714 | 1.14750 |
| 20.000 | 20.000 | .00000 | 2018.50417 | 831.53033 | 1170.58017 | 1.01475 | 1.01475 | 1.01531 | 1.15085 | 1.15111 | 1.15164 |
| 22.000 | 22.000 | .00000 | 2017.94956 | 831.40863 | 1170.20868 | 1.02945 | 1.02941 | 1.02987 | 1.15521 | 1.15517 | 1.15562 |
| 24.000 | 24.000 | .00000 | 2014.63448 | 830.32560 | 1168.68396 | 1.04164 | 1.04216 | 1.04223 | 1.16539 | 1.16590 | 1.16597 |
| GRADIENT | | | | | | .00148 | .00163 | .00169 | -.00417 | -.00404 | -.00399 |

MACH = 1.400 RN/L = 4 25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|--------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| .0000 | .000 | .00000 | 2043.25790 | 642.23148 | 1316.08347 | 1.01369 | 1.01712 | 1.02265 | 1.28315 | 1.28664 | 1.29165 |
| 2.000 | 2.000 | .00000 | 2048.25000 | 643.57806 | 1318.84294 | 1.02776 | 1.02763 | 1.02705 | 1.28115 | 1.28580 | 1.28741 |
| 4.000 | 4.000 | .00000 | 2045.36119 | 643.02779 | 1317.71530 | 1.02773 | 1.02792 | 1.03223 | 1.27570 | 1.27570 | 1.28000 |
| 6.000 | 6.000 | .00000 | 2035.68442 | 640.56650 | 1312.67154 | 1.03146 | 1.03321 | 1.03799 | 1.26885 | 1.27059 | 1.27535 |
| 8.000 | 8.000 | .00000 | 2036.48167 | 640.58681 | 1312.71315 | 1.04201 | 1.04321 | 1.04796 | 1.27004 | 1.27125 | 1.27600 |
| 10.000 | 10.000 | .00000 | 2037.06380 | 640.77697 | 1313.10285 | 1.05264 | 1.05507 | 1.05901 | 1.27271 | 1.27515 | 1.27911 |
| 12.000 | 12.000 | .00000 | 2032.67712 | 639.62427 | 1310.74069 | 1.06233 | 1.06371 | 1.06709 | 1.27743 | 1.27881 | 1.28223 |
| 14.000 | 14.000 | .00000 | 2034.53185 | 640.07636 | 1311.66714 | 1.07483 | 1.07504 | 1.07896 | 1.28041 | 1.28041 | 1.28439 |
| 16.000 | 16.000 | .00000 | 2038.71129 | 641.14881 | 1313.86434 | 1.08332 | 1.08592 | 1.09011 | 1.28041 | 1.28178 | 1.28624 |
| 18.000 | 18.000 | .00000 | 2034.88971 | 640.10445 | 1311.72469 | 1.08863 | 1.09291 | 1.09667 | 1.28422 | 1.28422 | 1.28805 |
| 20.000 | 20.000 | .00000 | 2029.02078 | 638.64844 | 1308.74098 | 1.09940 | 1.10359 | 1.10716 | 1.28852 | 1.28852 | 1.29216 |
| 22.000 | 22.000 | .00000 | 2029.79141 | 638.90320 | 1309.26305 | 1.11406 | 1.11406 | 1.12232 | 1.30034 | 1.30034 | 1.30370 |
| 24.000 | 24.000 | .00000 | 2028.09665 | 638.46732 | 1308.26984 | 1.12066 | 1.12617 | 1.12941 | 1.30352 | 1.30352 | 1.31251 |
| GRADIENT | | | | | | .00351 | .00270 | .00249 | -.00191 | -.00271 | -.00231 |

ARC 11-97-87-09# 0A161 ORBITER + RAKES

(FE7X05) (02 AUG 75)

REFERENCE DATA

SREF = 2698.0000 SO.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M#2 | M#2 | M#2 | M#4 | M#4 | M#4 | M#4 |
|----------|-------|-------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | .0000 | 1580.54596 | 401.10618 | 1045.16287 | 1.02974 | 1.09584 | 1.10362 | 1.42605 | 1.43561 | 1.44307 | 1.44307 |
| 2.000 | .000 | .0000 | 1581.96228 | 401.46997 | 1046.11082 | 1.09575 | 1.10265 | 1.10842 | 1.42408 | 1.43143 | 1.43759 | 1.43759 |
| 4.000 | .000 | .0000 | 1581.60306 | 401.36976 | 1045.84969 | 1.16252 | 1.10874 | 1.11458 | 1.41796 | 1.42456 | 1.43078 | 1.43078 |
| 6.000 | .000 | .0000 | 1581.71835 | 401.39528 | 1045.91879 | 1.11004 | 1.11601 | 1.12129 | 1.41556 | 1.42191 | 1.42753 | 1.42753 |
| 8.000 | .000 | .0000 | 1582.28792 | 401.54744 | 1046.31267 | 1.11980 | 1.12529 | 1.13067 | 1.41599 | 1.42177 | 1.42751 | 1.42751 |
| 10.000 | .000 | .0000 | 1584.01578 | 401.96475 | 1047.40035 | 1.12885 | 1.13276 | 1.13825 | 1.41474 | 1.42142 | 1.42722 | 1.42722 |
| 12.000 | .000 | .0000 | 1584.74577 | 402.14309 | 1047.86478 | 1.13074 | 1.13785 | 1.14424 | 1.41442 | 1.42142 | 1.42722 | 1.42722 |
| 14.000 | .000 | .0000 | 1584.30254 | 402.03269 | 1047.57710 | 1.14238 | 1.14732 | 1.15251 | 1.41394 | 1.42142 | 1.42722 | 1.42722 |
| 16.000 | .000 | .0000 | 1584.53708 | 402.09357 | 1047.73572 | 1.15471 | 1.15820 | 1.16222 | 1.41070 | 1.41439 | 1.41866 | 1.41866 |
| 18.000 | .000 | .0000 | 1585.24020 | 402.26379 | 1048.17926 | 1.15987 | 1.16459 | 1.16993 | 1.41065 | 1.41556 | 1.42132 | 1.42132 |
| 20.000 | .000 | .0000 | 1585.26917 | 402.27295 | 1048.20312 | 1.16524 | 1.17142 | 1.17811 | 1.41340 | 1.41997 | 1.42708 | 1.42708 |
| 22.000 | .000 | .0000 | 1584.67165 | 402.12355 | 1047.81384 | 1.17438 | 1.18176 | 1.18776 | 1.41839 | 1.42623 | 1.43262 | 1.43262 |
| 24.000 | .000 | .0000 | 1584.25276 | 402.01530 | 1047.53178 | 1.18873 | 1.19587 | 1.20086 | 1.42247 | 1.43086 | 1.43537 | 1.43537 |
| GRADIENT | | | .26428 | .06590 | .17171 | .00320 | .00298 | .00269 | -.00252 | -.00276 | -.00307 | -.00307 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M#2 | M#2 | M#2 | M#4 | M#4 | M#4 | M#4 |
|----------|-------|-------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|---------|
| 1.750 | .000 | .0000 | 1657.74608 | 311.37225 | 1072.15997 | 1.14576 | 1.16100 | 1.17453 | 1.52111 | 1.53799 | 1.55306 | 1.55306 |
| 2.000 | .000 | .0000 | 1657.99976 | 311.41864 | 1072.31978 | 1.15568 | 1.17163 | 1.18453 | 1.51644 | 1.53406 | 1.54839 | 1.54839 |
| 4.000 | .000 | .0000 | 1657.20947 | 311.27179 | 1071.81404 | 1.16145 | 1.17611 | 1.18861 | 1.51566 | 1.53484 | 1.54595 | 1.54595 |
| 6.000 | .000 | .0000 | 1656.47336 | 311.13422 | 1071.34035 | 1.16620 | 1.18014 | 1.19134 | 1.51668 | 1.53207 | 1.54443 | 1.54443 |
| 8.000 | .000 | .0000 | 1657.27676 | 311.28436 | 1071.85733 | 1.17402 | 1.18770 | 1.19853 | 1.51493 | 1.53001 | 1.54199 | 1.54199 |
| 10.000 | .000 | .0000 | 1657.32759 | 311.29292 | 1071.88681 | 1.18306 | 1.19443 | 1.20521 | 1.51316 | 1.52567 | 1.53757 | 1.53757 |
| 12.000 | .000 | .0000 | 1656.50383 | 311.14008 | 1071.36053 | 1.19211 | 1.20741 | 1.21938 | 1.50494 | 1.52171 | 1.53488 | 1.53488 |
| 14.000 | .000 | .0000 | 1657.07622 | 311.24621 | 1071.72598 | 1.20379 | 1.21428 | 1.22418 | 1.51586 | 1.52739 | 1.53828 | 1.53828 |
| 16.000 | .000 | .0000 | 1656.60486 | 311.15869 | 1071.42461 | 1.21410 | 1.22226 | 1.23120 | 1.52141 | 1.53037 | 1.54021 | 1.54021 |
| 18.000 | .000 | .0000 | 1656.32849 | 311.10677 | 1071.24582 | 1.22389 | 1.23486 | 1.24434 | 1.51576 | 1.52776 | 1.53816 | 1.53816 |
| 20.000 | .000 | .0000 | 1656.80373 | 311.19482 | 1071.54903 | 1.23740 | 1.25173 | 1.26165 | 1.51254 | 1.52918 | 1.53903 | 1.53903 |
| 22.000 | .000 | .0000 | 1657.27647 | 311.28266 | 1071.85149 | 1.24196 | 1.25745 | 1.26772 | 1.51571 | 1.53463 | 1.54386 | 1.54386 |
| 24.000 | .000 | .0000 | 1657.16254 | 311.26139 | 1071.77823 | 1.24867 | 1.26338 | 1.27388 | 1.52029 | 1.53635 | 1.54784 | 1.54784 |
| GRADIENT | | | -.13413 | -.02512 | -.08649 | .00382 | .00378 | .00357 | -.00136 | -.00154 | -.00178 | -.00178 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AILRON = .000 BOFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M42 | M52 | M52 | M52 | M44 | M54 | M54 | M54 |
|----------|--------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.000 | .0000 | .0000 | 1847.14875 | 235.84824 | 1094.43971 | 1.23623 | 1.26805 | 1.23622 | 1.68279 | 1.72002 | 1.74969 | 1.72002 | 1.74969 |
| 2.000 | .0000 | .0000 | 1846.77534 | 235.80064 | 1094.21681 | 1.24379 | 1.27609 | 1.24378 | 1.68313 | 1.72087 | 1.74969 | 1.72087 | 1.74969 |
| 4.000 | .0000 | .0000 | 1847.06482 | 235.83535 | 1094.37987 | 1.25362 | 1.28423 | 1.25362 | 1.68346 | 1.71603 | 1.74599 | 1.71603 | 1.74599 |
| 6.000 | .0000 | .0000 | 1846.70287 | 235.79072 | 1094.17278 | 1.26314 | 1.29243 | 1.26314 | 1.68356 | 1.71862 | 1.74566 | 1.71862 | 1.74566 |
| 8.000 | .0000 | .0000 | 1846.84723 | 235.80916 | 1094.25836 | 1.27028 | 1.29859 | 1.27028 | 1.68351 | 1.71850 | 1.74430 | 1.71850 | 1.74430 |
| 10.000 | .0000 | .0000 | 1847.73077 | 235.93651 | 1094.84930 | 1.28484 | 1.31123 | 1.28484 | 1.68333 | 1.71869 | 1.74288 | 1.71869 | 1.74288 |
| 12.000 | .0000 | .0000 | 1847.06197 | 235.84271 | 1094.41403 | 1.29166 | 1.31926 | 1.29166 | 1.68341 | 1.71829 | 1.74292 | 1.71829 | 1.74292 |
| 14.000 | .0000 | .0000 | 1846.76268 | 235.79962 | 1094.21408 | 1.30557 | 1.32880 | 1.30557 | 1.68377 | 1.72505 | 1.74599 | 1.72505 | 1.74599 |
| 16.000 | .0000 | .0000 | 1846.78920 | 235.81072 | 1094.26558 | 1.31775 | 1.33767 | 1.31775 | 1.68377 | 1.72581 | 1.74599 | 1.72581 | 1.74599 |
| 18.000 | .0000 | .0000 | 1846.62433 | 235.78563 | 1094.14717 | 1.32783 | 1.34929 | 1.32783 | 1.68364 | 1.73105 | 1.74997 | 1.73105 | 1.74997 |
| 20.000 | .0000 | .0000 | 1845.86009 | 235.81953 | 1094.30649 | 1.33679 | 1.35932 | 1.33679 | 1.68358 | 1.72735 | 1.74808 | 1.72735 | 1.74808 |
| 22.000 | .0000 | .0000 | 1846.82297 | 235.81627 | 1094.29134 | 1.34469 | 1.37023 | 1.34469 | 1.68327 | 1.72445 | 1.74546 | 1.72445 | 1.74546 |
| 24.000 | .0000 | .0000 | 1845.84973 | 235.68645 | 1093.68992 | 1.35910 | 1.38541 | 1.35910 | 1.68340 | 1.72731 | 1.74739 | 1.72731 | 1.74739 |
| GRADIENT | .00000 | .00000 | -.01898 | -.00322 | -.01495 | .00435 | .00404 | .00415 | -.00060 | -.00710 | -.00092 | -.00710 | -.00092 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M42 | M52 | M52 | M52 | M44 | M54 | M54 | M54 |
|----------|--------|--------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2.250 | .0000 | .0000 | 2059.62274 | 178.13523 | 1069.13588 | 1.32204 | 1.37898 | 1.32204 | 1.41376 | 1.92482 | 1.97047 | 1.92482 | 1.97047 |
| 2.000 | .0000 | .0000 | 2059.69022 | 178.14101 | 1069.17059 | 1.32776 | 1.38315 | 1.32776 | 1.42322 | 1.89335 | 1.96698 | 1.89335 | 1.96698 |
| 4.000 | .0000 | .0000 | 2059.24142 | 178.10249 | 1068.93941 | 1.33740 | 1.38958 | 1.33740 | 1.43213 | 1.86257 | 1.95507 | 1.86257 | 1.95507 |
| 6.000 | .0000 | .0000 | 2059.67895 | 178.13995 | 1069.16429 | 1.34783 | 1.39811 | 1.34783 | 1.43509 | 1.85934 | 1.95192 | 1.85934 | 1.95192 |
| 8.000 | .0000 | .0000 | 2059.63947 | 178.13654 | 1069.14375 | 1.35845 | 1.40816 | 1.35845 | 1.44133 | 1.85591 | 1.94911 | 1.85591 | 1.94911 |
| 10.000 | .0000 | .0000 | 2059.11798 | 178.09175 | 1068.87997 | 1.37353 | 1.41855 | 1.37353 | 1.44981 | 1.85366 | 1.94911 | 1.85366 | 1.94911 |
| 12.000 | .0000 | .0000 | 2059.74341 | 178.05961 | 1068.68224 | 1.38195 | 1.42489 | 1.38195 | 1.45399 | 1.87190 | 1.94911 | 1.87190 | 1.94911 |
| 14.000 | .0000 | .0000 | 2059.55093 | 178.12881 | 1069.09737 | 1.39480 | 1.43392 | 1.39480 | 1.46194 | 1.87807 | 1.94911 | 1.87807 | 1.94911 |
| 16.000 | .0000 | .0000 | 2059.35732 | 178.11318 | 1069.00757 | 1.40854 | 1.44498 | 1.40854 | 1.47034 | 1.87583 | 1.94911 | 1.87583 | 1.94911 |
| 18.000 | .0000 | .0000 | 2059.63990 | 178.06788 | 1068.73170 | 1.42414 | 1.46002 | 1.42414 | 1.48508 | 1.87335 | 1.92224 | 1.87335 | 1.92224 |
| 20.000 | .0000 | .0000 | 2059.20343 | 178.09903 | 1068.91662 | 1.45143 | 1.48790 | 1.45143 | 1.49790 | 1.85322 | 1.89834 | 1.85322 | 1.89834 |
| 22.000 | .0000 | .0000 | 2059.94348 | 178.07670 | 1068.78462 | 1.46280 | 1.50014 | 1.46280 | 1.52724 | 1.91763 | 1.95493 | 1.91763 | 1.95493 |
| 24.000 | .0000 | .0000 | 2058.85312 | 178.06898 | 1068.73825 | 1.48533 | 1.53533 | 1.48533 | 1.54124 | 1.86374 | 1.93660 | 1.86374 | 1.93660 |
| GRADIENT | .00000 | .00000 | -.09532 | -.00818 | -.04911 | .00384 | .00265 | .00334 | -.00060 | -.00560 | -.00155 | -.00560 | -.00155 |

ORIGINAL PAGE IS
 OF POOR QUALITY

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 2.00 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | R | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|-------|-------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| 2.500 | .0000 | .0000 | 1495.02940 | 87.42978 | 658.00830 | 1.36012 | 1.44090 | 1.49284 | 1.96733 | 2.07022 | 2.13705 |
| 2.000 | .0000 | .0000 | 1495.07198 | 87.43218 | 658.02643 | 1.36574 | 1.44420 | 1.49506 | 1.96174 | 2.05085 | 2.11568 |
| 4.000 | .0000 | .0000 | 1494.35016 | 87.36912 | 657.70236 | 1.37314 | 1.44881 | 1.50264 | 1.96152 | 2.05721 | 2.12592 |
| 6.000 | .0000 | .0000 | 1494.94664 | 87.42504 | 657.97271 | 1.38590 | 1.46141 | 1.51276 | 1.96535 | 2.06055 | 2.12685 |
| 8.000 | .0000 | .0000 | 1495.11034 | 87.43490 | 658.04689 | 1.40073 | 1.47189 | 1.51900 | 1.97847 | 2.05828 | 2.12799 |
| 10.000 | .0000 | .0000 | 1494.33299 | 87.38847 | 657.69749 | 1.41375 | 1.47925 | 1.52508 | 1.98328 | 2.05558 | 2.12357 |
| 12.000 | .0000 | .0000 | 1494.98853 | 87.42791 | 657.99431 | 1.43359 | 1.49664 | 1.53836 | 1.99273 | 2.07156 | 2.12420 |
| 14.000 | .0000 | .0000 | 1494.32796 | 87.38815 | 657.69506 | 1.45236 | 1.51641 | 1.54805 | 2.00521 | 2.07409 | 2.11497 |
| 16.000 | .0000 | .0000 | 1494.89259 | 87.42212 | 657.99069 | 1.46254 | 1.51029 | 1.55059 | 2.00722 | 2.07274 | 2.11431 |
| 18.000 | .0000 | .0000 | 1494.35973 | 87.39025 | 657.71090 | 1.47825 | 1.52977 | 1.56319 | 2.00695 | 2.07908 | 2.11234 |
| 20.000 | .0000 | .0000 | 1494.85466 | 87.41989 | 657.93397 | 1.48980 | 1.53839 | 1.57322 | 2.01895 | 2.07908 | 2.11302 |
| 22.000 | .0000 | .0000 | 1494.36290 | 87.39047 | 657.71252 | 1.49413 | 1.54146 | 1.57791 | 2.00972 | 2.06788 | 2.11876 |
| 24.000 | .0000 | .0000 | 1494.89579 | 87.42173 | 657.94775 | 1.51035 | 1.56694 | 1.59467 | 2.01524 | 2.07234 | 2.11876 |
| GRADIENT | | | -.16982 | -.01016 | -.07650 | .00326 | .00198 | .00245 | -.00145 | -.00325 | -.00278 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00 / 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|-------|-------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| 3.000 | .0000 | .0000 | 1940.57863 | 51.17667 | 566.06326 | 1.42054 | 1.55321 | 1.63652 | 2.19022 | 2.37130 | 2.46643 |
| 2.000 | .0000 | .0000 | 1940.33086 | 51.16886 | 565.97688 | 1.43111 | 1.56038 | 1.64718 | 2.20323 | 2.37977 | 2.46978 |
| 4.000 | .0000 | .0000 | 1939.42018 | 51.14571 | 565.72091 | 1.44388 | 1.56922 | 1.65330 | 2.20816 | 2.37877 | 2.47331 |
| 6.000 | .0000 | .0000 | 1939.65381 | 51.15674 | 565.84290 | 1.46359 | 1.58658 | 1.66737 | 2.22257 | 2.38959 | 2.50247 |
| 8.000 | .0000 | .0000 | 1938.91023 | 51.13770 | 565.63232 | 1.48471 | 1.59705 | 1.67874 | 2.2257 | 2.37226 | 2.47748 |
| 10.000 | .0000 | .0000 | 1939.74450 | 51.16337 | 565.88295 | 1.50552 | 1.61182 | 1.68281 | 2.23441 | 2.37590 | 2.47290 |
| 12.000 | .0000 | .0000 | 1939.09339 | 51.14639 | 565.72841 | 1.53349 | 1.63612 | 1.70347 | 2.25569 | 2.39395 | 2.48049 |
| 14.000 | .0000 | .0000 | 1939.37943 | 51.15133 | 565.79307 | 1.55111 | 1.65352 | 1.71348 | 2.28169 | 2.41327 | 2.48396 |
| 16.000 | .0000 | .0000 | 1938.79555 | 51.13905 | 565.63401 | 1.57481 | 1.65530 | 1.72367 | 2.28313 | 2.40946 | 2.48732 |
| 18.000 | .0000 | .0000 | 1939.37152 | 51.15323 | 565.80401 | 1.58943 | 1.67448 | 1.73165 | 2.2737 | 2.39826 | 2.48483 |
| 20.000 | .0000 | .0000 | 1939.61799 | 51.16009 | 565.87335 | 1.61006 | 1.68935 | 1.74795 | 2.29798 | 2.43220 | 2.47561 |
| 22.000 | .0000 | .0000 | 1939.80849 | 51.15027 | 565.83356 | 1.63627 | 1.68331 | 1.74252 | 2.25557 | 2.35567 | 2.43329 |
| 24.000 | .0000 | .0000 | 1939.35315 | 51.15332 | 565.95102 | 1.65963 | 1.71459 | 1.77775 | 2.25557 | 2.40639 | 2.48911 |
| GRADIENT | | | -.28561 | -.00374 | -.08559 | .00584 | .00400 | .00470 | .00197 | .00197 | .00272 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
 ARC 11-97-87-094 OA161 ORBITER + RAKES

(FETX05) (02 AUG 76)

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M52 | M52 | M54 | M54 | M54 |
|--------------|----------|--------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|-----|
| | .000 | .00000 | 2633.31985 | 34.57549 | 526.99953 | 1.44316 | 1.62028 | 1.73674 | 2.29333 | 2.54312 | 2.70920 | |
| | 2.000 | .00000 | 2640.01666 | 34.58445 | 527.13617 | 1.44910 | 1.62258 | 1.74313 | 2.29314 | 2.53715 | 2.70920 | |
| | 4.000 | .00000 | 2640.89996 | 34.59589 | 527.31037 | 1.47294 | 1.64272 | 1.75549 | 2.32344 | 2.56260 | 2.72498 | |
| | 6.000 | .00000 | 2644.64435 | 34.64481 | 528.05621 | 1.48946 | 1.65210 | 1.76239 | 2.32998 | 2.58800 | 2.71457 | |
| | 8.000 | .00000 | 2646.62357 | 34.67127 | 528.45053 | 1.53368 | 1.68523 | 1.78690 | 2.38155 | 2.59521 | 2.73787 | |
| | 10.000 | .00000 | 2646.80231 | 34.57352 | 528.49626 | 1.55334 | 1.70663 | 1.80277 | 2.41527 | 2.61699 | 2.75221 | |
| | 12.000 | .00000 | 2647.36554 | 34.68095 | 528.60566 | 1.59410 | 1.72235 | 1.83324 | 2.40736 | 2.65472 | 2.77295 | |
| | 14.000 | .00000 | 2652.42508 | 34.74652 | 529.60644 | 1.61575 | 1.74672 | 1.85003 | 2.43993 | 2.62119 | 2.73739 | |
| | 16.000 | .00000 | 2653.07376 | 34.75490 | 529.73420 | 1.64489 | 1.76718 | 1.84890 | 2.45919 | 2.62742 | 2.74004 | |
| | 18.000 | .00000 | 2650.25250 | 34.71834 | 529.18607 | 1.65053 | 1.76580 | 1.84595 | 2.42952 | 2.58606 | 2.69542 | |
| | 20.000 | .00000 | 2651.57239 | 34.73560 | 529.43297 | 1.66967 | 1.77903 | 1.85177 | 2.44953 | 2.59799 | 2.71090 | |
| | 22.000 | .00000 | 2652.55411 | 34.74832 | 529.53283 | 1.67468 | 1.77784 | 1.86317 | 2.42044 | 2.55982 | 2.67355 | |
| | 24.000 | .00000 | 2651.96234 | 34.74070 | 529.51771 | 1.67818 | 1.78035 | 1.85895 | 2.41555 | 2.55197 | 2.67079 | |
| | GRADIENT | .00000 | .39504 | .00510 | .07776 | .00745 | .00561 | .00494 | .00753 | .00487 | .00360 | |

(F7X06) (0E AUG 76)

TABLATED DATA - 0A161 (ARC 11-87-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 2.000 ELEVOM = .000
AIRLON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|---------|----------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| 2.00000 | 0.000 | 2.00000 | 2628.08527 | 2060.85532 | 567.26895 | 57307 | 57324 | 57311 | 65118 | 65134 | 65122 |
| 2.00000 | 2.000 | 2.00000 | 2625.49564 | 2058.88948 | 566.64084 | 55931 | 55964 | 55937 | 63701 | 63730 | 63706 |
| 2.00000 | 4.000 | 2.00000 | 2627.76624 | 2060.48969 | 567.27855 | 55896 | 55755 | 55760 | 63444 | 63495 | 63501 |
| 2.00000 | 6.000 | 2.00000 | 2627.00064 | 2059.99554 | 567.00510 | 56679 | 56700 | 56696 | 63921 | 63939 | 63936 |
| 2.00000 | 8.000 | 2.00000 | 2626.97994 | 2060.00323 | 566.97571 | 57121 | 57078 | 57121 | 63995 | 63958 | 63985 |
| 2.00000 | 10.000 | 2.00000 | 2626.30542 | 2059.42654 | 566.87888 | 57551 | 57525 | 57571 | 63950 | 63925 | 63929 |
| 2.00000 | 12.000 | 2.00000 | 2626.31223 | 2059.48074 | 566.83148 | 58115 | 58097 | 58154 | 63893 | 63877 | 63929 |
| 2.00000 | 14.000 | 2.00000 | 2628.99167 | 2061.44455 | 567.54712 | 58884 | 58918 | 58942 | 63943 | 63974 | 63995 |
| 2.00000 | 16.000 | 2.00000 | 2627.44873 | 2060.24384 | 567.20490 | 59889 | 59912 | 59937 | 64304 | 64325 | 64349 |
| 2.00000 | 18.000 | 2.00000 | 2626.31006 | 2059.46307 | 566.84698 | 61026 | 61030 | 61076 | 64561 | 64665 | 64709 |
| 2.00000 | 20.000 | 2.00000 | 2626.65659 | 2059.71997 | 566.93661 | 62409 | 62455 | 62509 | 65289 | 65334 | 65366 |
| 2.00000 | 22.000 | 2.00000 | 2624.28891 | 2057.95145 | 566.33746 | 63723 | 63867 | 63863 | 65893 | 66034 | 66030 |
| 2.00000 | 24.000 | 2.00000 | 2623.73047 | 2057.53900 | 566.19147 | 64910 | 65202 | 65189 | 66325 | 66612 | 66599 |
| | GRADIENT | | -.07975 | -.09139 | .01165 | -.00403 | -.00392 | -.00388 | -.00419 | -.00409 | -.00405 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|---------|----------|---------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| 2.00000 | 0.000 | 2.00000 | 2112.48975 | 1248.91620 | 863.56955 | 75592 | 75595 | 75582 | 91901 | 91901 | 91890 |
| 2.00000 | 2.000 | 2.00000 | 2115.92145 | 1251.04158 | 864.87988 | 75376 | 75325 | 75291 | 90722 | 90679 | 90649 |
| 2.00000 | 4.000 | 2.00000 | 2119.15109 | 1252.90967 | 866.24142 | 75338 | 75570 | 75537 | 90129 | 90129 | 90100 |
| 2.00000 | 6.000 | 2.00000 | 2117.58701 | 1251.97867 | 865.60894 | 75493 | 75513 | 75520 | 89078 | 89056 | 89102 |
| 2.00000 | 8.000 | 2.00000 | 2114.79404 | 1250.37154 | 864.42252 | 75698 | 75710 | 75695 | 88469 | 88479 | 88466 |
| 2.00000 | 10.000 | 2.00000 | 2119.07846 | 1252.94972 | 866.12875 | 75638 | 76651 | 76639 | 87920 | 87931 | 87920 |
| 2.00000 | 12.000 | 2.00000 | 2115.97958 | 1251.07672 | 864.90286 | 77497 | 77498 | 77509 | 87701 | 87701 | 87712 |
| 2.00000 | 14.000 | 2.00000 | 2114.68259 | 1250.28664 | 864.39597 | 78477 | 78484 | 78486 | 87671 | 87671 | 87656 |
| 2.00000 | 16.000 | 2.00000 | 2116.99549 | 1251.61702 | 865.28848 | 79967 | 80005 | 79978 | 87956 | 87956 | 87956 |
| 2.00000 | 18.000 | 2.00000 | 2117.39859 | 1251.88719 | 865.51141 | 81711 | 81785 | 81745 | 87991 | 87991 | 87991 |
| 2.00000 | 20.000 | 2.00000 | 2115.91061 | 1251.01956 | 864.89105 | 83388 | 83439 | 83398 | 88462 | 88462 | 88425 |
| 2.00000 | 22.000 | 2.00000 | 2110.44638 | 1247.78032 | 862.66608 | 85065 | 85159 | 85152 | 88909 | 88909 | 88869 |
| 2.00000 | 24.000 | 2.00000 | 2109.08810 | 1246.91112 | 862.17700 | 87030 | 87343 | 87356 | 89485 | 89485 | 89576 |
| | GRADIENT | | 1.66635 | .99836 | .66797 | -.00013 | -.00006 | -.00011 | -.00443 | -.00443 | -.00447 |

(FE7X06J (02 AUG 75)

TABLATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RVL = 4.27 GRADIENT INTERVAL = -5.01/ 5.00

| MACH | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|---------|------------|-----------|------------|--------|---------|---------|----------|----------|----------|
| 1.200 | 2.00000 | 2003.55424 | 828.76637 | 1166.48990 | .88184 | .88208 | .88211 | 1.06638 | 1.06658 | 1.06662 |
| ALPHA | .000 | 2008.90266 | 828.44971 | 1166.04420 | .89022 | .88034 | .88105 | 1.06604 | 1.06615 | 1.06679 |
| 2.000 | 2.00000 | 2009.08081 | 828.45160 | 1166.04684 | .83513 | .88546 | .88616 | 1.05785 | 1.05814 | 1.05878 |
| 4.000 | 2.00000 | 2012.49275 | 829.60759 | 1167.67390 | .89110 | .89160 | .89162 | 1.04939 | 1.04984 | 1.04986 |
| 6.000 | 2.00000 | 2012.49275 | 829.57092 | 1167.62230 | .83596 | .89615 | .89688 | 1.05783 | 1.05801 | 1.05866 |
| 8.000 | 2.00000 | 2011.92180 | 829.36008 | 1167.32553 | .90303 | .90314 | .90365 | 1.08331 | 1.08341 | 1.08387 |
| 10.000 | 2.00000 | 2013.54626 | 829.94049 | 1168.14247 | .91289 | .91329 | .91350 | 1.10199 | 1.10236 | 1.10255 |
| 12.000 | 2.00000 | 2015.19850 | 830.40101 | 1168.79065 | .92551 | .92574 | .92574 | 1.10113 | 1.10148 | 1.10170 |
| 14.000 | 2.00000 | 2013.69295 | 829.94411 | 1168.14755 | .93949 | .93988 | .94006 | 1.09994 | 1.10030 | 1.10047 |
| 16.000 | 2.00000 | 2013.23676 | 829.86232 | 1168.03244 | .95607 | .95671 | .95699 | 1.10995 | 1.11055 | 1.11092 |
| 18.000 | 2.00000 | 2017.18069 | 830.97342 | 1169.59631 | .97384 | .97420 | .97420 | 1.11783 | 1.11848 | 1.11882 |
| 20.000 | 2.00000 | 2019.10837 | 831.89906 | 1170.89917 | .98747 | .98816 | .98970 | 1.12037 | 1.12103 | 1.12155 |
| 22.000 | 2.00000 | 2020.01411 | 832.02087 | 1171.07062 | .99919 | 1.00057 | 1.00081 | 1.12830 | 1.12963 | 1.12986 |
| 24.000 | 2.00000 | 2020.01411 | 832.02087 | 1171.07062 | .00082 | .00085 | .00101 | 1.12830 | 1.12963 | 1.12986 |
| GRADIENT | .00000 | -1.11637 | -0.07869 | -1.11077 | .00082 | .00085 | .00101 | -0.00213 | -0.00211 | -0.00195 |

| MACH | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|---------|------------|-----------|------------|---------|---------|---------|----------|----------|----------|
| 1.400 | 2.00000 | 2044.20187 | 642.54803 | 1316.73218 | .98921 | .99258 | .99743 | 1.26150 | 1.26487 | 1.26950 |
| ALPHA | .000 | 2046.48904 | 643.12830 | 1317.92126 | .98306 | .99505 | .99957 | 1.26802 | 1.26986 | 1.26436 |
| 2.000 | 2.00000 | 2041.44493 | 641.78365 | 1315.16579 | 1.00041 | 1.00060 | 1.00470 | 1.25100 | 1.25120 | 1.25519 |
| 4.000 | 2.00000 | 2044.57449 | 642.62668 | 1316.89333 | 1.00688 | 1.00796 | 1.01232 | 1.24693 | 1.24798 | 1.25226 |
| 6.000 | 2.00000 | 2040.79863 | 641.70628 | 1315.00722 | 1.01299 | 1.01390 | 1.01782 | 1.24416 | 1.24506 | 1.24691 |
| 8.000 | 2.00000 | 2035.77562 | 640.44118 | 1312.41475 | 1.02420 | 1.02564 | 1.02923 | 1.24826 | 1.24968 | 1.25323 |
| 10.000 | 2.00000 | 2036.94429 | 640.72921 | 1312.99680 | 1.03196 | 1.03412 | 1.03731 | 1.25011 | 1.25225 | 1.25492 |
| 12.000 | 2.00000 | 2039.65687 | 641.42471 | 1314.43022 | 1.04362 | 1.04463 | 1.04758 | 1.25096 | 1.25203 | 1.25492 |
| 14.000 | 2.00000 | 2039.80769 | 641.40276 | 1314.38322 | 1.05681 | 1.05747 | 1.06109 | 1.25424 | 1.25424 | 1.25786 |
| 16.000 | 2.00000 | 2039.32677 | 641.26414 | 1314.10118 | 1.06042 | 1.06276 | 1.06653 | 1.25130 | 1.25364 | 1.25742 |
| 18.000 | 2.00000 | 2033.81595 | 639.92600 | 1311.35902 | 1.06142 | 1.06515 | 1.06821 | 1.24849 | 1.25223 | 1.25530 |
| 20.000 | 2.00000 | 2023.58159 | 637.19749 | 1305.76765 | 1.06952 | 1.07380 | 1.07699 | 1.24949 | 1.25922 | 1.26243 |
| 22.000 | 2.00000 | 2021.60355 | 636.67937 | 1304.70342 | 1.07991 | 1.08315 | 1.08826 | 1.25983 | 1.26513 | 1.26827 |
| 24.000 | 2.00000 | 2021.60355 | 636.67937 | 1304.70342 | .00280 | .00198 | .00182 | -0.00262 | -0.00342 | -0.00358 |
| GRADIENT | .00000 | -1.19109 | -0.07869 | -1.19109 | .00280 | .00198 | .00182 | -0.00262 | -0.00342 | -0.00358 |

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TABLATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBLITER + RAKES

REFERENCE DATA

SREF = 2693.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0303

BETA = 2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|--------|------------|------------|-----------|------------|----------|---------|---------|---------|---------|---------|
| 1.550 | .000 | 2.00000 | 1568.49995 | 397.96504 | 1036.97801 | 1.048566 | 1.05355 | 1.05996 | 1.36990 | 1.37712 | 1.38357 |
| 2.000 | 2.0000 | 1570.76030 | 1038.46596 | 398.53608 | 1038.46596 | 1.053226 | 1.06015 | 1.06607 | 1.38489 | 1.37199 | 1.37815 |
| 4.000 | 4.000 | 1572.20376 | 1039.37613 | 398.85619 | 1039.37613 | 1.06121 | 1.06801 | 1.07324 | 1.38567 | 1.37271 | 1.37815 |
| 6.000 | 6.000 | 1572.37077 | 1039.43916 | 399.90957 | 1039.43916 | 1.06996 | 1.07724 | 1.08185 | 1.39030 | 1.36658 | 1.37137 |
| 8.000 | 2.0000 | 1573.70795 | 1040.33282 | 399.25253 | 1040.33282 | 1.07957 | 1.09346 | 1.09018 | 1.39300 | 1.36560 | 1.37032 |
| 10.000 | 2.0000 | 1573.65640 | 1040.31351 | 399.24512 | 1040.31351 | 1.08873 | 1.09416 | 1.09837 | 1.36100 | 1.36665 | 1.37103 |
| 12.000 | 2.0000 | 1572.64893 | 1039.63991 | 399.98661 | 1039.63991 | 1.09684 | 1.10141 | 1.10562 | 1.36039 | 1.36514 | 1.36954 |
| 14.000 | 2.0000 | 1572.69780 | 1039.67572 | 399.00035 | 1039.67572 | 1.10300 | 1.10765 | 1.11286 | 1.35602 | 1.36086 | 1.36629 |
| 16.000 | 2.0000 | 1572.12041 | 1039.27986 | 398.84843 | 1039.27986 | 1.11010 | 1.11391 | 1.11899 | 1.35900 | 1.36299 | 1.36828 |
| 18.000 | 2.0000 | 1571.97598 | 1039.19070 | 399.81422 | 1039.19070 | 1.11879 | 1.12211 | 1.12640 | 1.35127 | 1.35475 | 1.35923 |
| 20.000 | 2.0000 | 1574.13762 | 1040.62433 | 399.36440 | 1040.62433 | 1.12656 | 1.12902 | 1.13397 | 1.35492 | 1.35854 | 1.37371 |
| 22.000 | 2.0000 | 1576.42464 | 1042.11156 | 399.93516 | 1042.11156 | 1.13163 | 1.13516 | 1.13951 | 1.37120 | 1.37489 | 1.37946 |
| 24.000 | 2.0000 | 1576.99655 | 1042.49895 | 400.08383 | 1042.49895 | 1.14154 | 1.14504 | 1.14900 | 1.38185 | 1.38553 | 1.38965 |
| GRADIENT | | .00000 | .92511 | .22529 | .58703 | .00364 | .00359 | .00332 | -.00106 | -.00110 | -.00138 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|--------|------------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | .000 | 2.00000 | 1558.77100 | 311.18917 | 1071.52611 | 1.11164 | 1.12647 | 1.13816 | 1.48535 | 1.50155 | 1.51438 |
| 2.000 | 2.0000 | 1555.31691 | 1070.59709 | 310.91837 | 1070.59709 | 1.11771 | 1.13247 | 1.14388 | 1.48571 | 1.50183 | 1.51435 |
| 4.000 | 2.0000 | 1555.46957 | 1070.59418 | 310.94556 | 1070.59418 | 1.12512 | 1.14050 | 1.15148 | 1.48227 | 1.49506 | 1.51111 |
| 6.000 | 2.0000 | 1555.59386 | 1070.77524 | 310.97010 | 1070.77524 | 1.13045 | 1.14428 | 1.15534 | 1.47973 | 1.49480 | 1.50693 |
| 8.000 | 2.0000 | 1556.17558 | 1071.14615 | 311.07782 | 1071.14615 | 1.13710 | 1.15103 | 1.16140 | 1.48053 | 1.49571 | 1.50707 |
| 10.000 | 2.0000 | 1556.23152 | 1071.18300 | 311.08852 | 1071.18300 | 1.15009 | 1.16010 | 1.17192 | 1.48194 | 1.49285 | 1.50581 |
| 12.000 | 2.0000 | 1556.29276 | 1071.22061 | 311.09945 | 1071.22061 | 1.16206 | 1.17183 | 1.1822 | 1.47936 | 1.49000 | 1.5024 |
| 14.000 | 2.0000 | 1556.36481 | 1071.26796 | 311.11320 | 1071.26796 | 1.17216 | 1.18248 | 1.19304 | 1.47337 | 1.48456 | 1.49506 |
| 16.000 | 2.0000 | 1556.43930 | 1070.81123 | 310.99256 | 1070.81123 | 1.18651 | 1.19447 | 1.20263 | 1.47581 | 1.48444 | 1.49330 |
| 18.000 | 2.0000 | 1556.52505 | 1071.11641 | 311.06919 | 1071.11641 | 1.19378 | 1.20153 | 1.20855 | 1.47823 | 1.48664 | 1.49426 |
| 20.000 | 2.0000 | 1556.39503 | 1071.28868 | 311.11927 | 1071.28868 | 1.19697 | 1.20504 | 1.21319 | 1.47956 | 1.48831 | 1.49717 |
| 22.000 | 2.0000 | 1556.98910 | 1071.02734 | 311.04332 | 1071.02734 | 1.20488 | 1.21619 | 1.22414 | 1.47630 | 1.48341 | 1.49705 |
| 24.000 | 2.0000 | 1556.65131 | 1070.81276 | 310.98100 | 1070.81276 | 1.21514 | 1.22905 | 1.23651 | 1.48151 | 1.48657 | 1.50466 |
| GRADIENT | | .00000 | -.32560 | -.06040 | -.20798 | .00337 | .00351 | .00333 | -.00077 | -.00062 | -.00082 |

TABLATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

(FETX06) (02 AUG 76)

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M42 | M42 | M42 | M44 | M54 | M64 |
|----------|------------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 2.0000 | 1845.98238 | 2.00000 | 1845.98238 | 235.71697 | 1093.83054 | 1.20725 | 1.23865 | 1.26288 | 1.63917 | 1.67663 | 1.70369 |
| 2.0000 | 1845.69019 | 2.00000 | 1845.69019 | 235.68356 | 1093.67549 | 1.21445 | 1.24513 | 1.26779 | 1.63902 | 1.67444 | 1.70077 |
| 4.0000 | 1644.79626 | 2.00000 | 1644.79626 | 235.56110 | 1093.10722 | 1.22361 | 1.25512 | 1.27731 | 1.63678 | 1.67307 | 1.69679 |
| 6.0000 | 1844.08850 | 2.00000 | 1844.08850 | 235.46556 | 1092.66437 | 1.23569 | 1.26867 | 1.28527 | 1.64091 | 1.67309 | 1.69809 |
| 8.0000 | 1845.05612 | 2.00000 | 1845.05612 | 235.59471 | 1093.26320 | 1.24015 | 1.26683 | 1.28789 | 1.63990 | 1.67053 | 1.69485 |
| 10.0000 | 1845.94762 | 2.00000 | 1845.94762 | 235.71702 | 1093.83081 | 1.25330 | 1.27997 | 1.29872 | 1.63646 | 1.66695 | 1.69449 |
| 12.0000 | 1845.36353 | 2.00000 | 1845.36353 | 235.63626 | 1093.45602 | 1.26356 | 1.28500 | 1.30302 | 1.64794 | 1.67249 | 1.69320 |
| 14.0000 | 1845.05315 | 2.00000 | 1845.05315 | 235.72144 | 1093.85130 | 1.26964 | 1.28519 | 1.31304 | 1.64811 | 1.67335 | 1.69785 |
| 16.0000 | 1845.19992 | 2.00000 | 1845.19992 | 235.73932 | 1093.93427 | 1.28330 | 1.30410 | 1.31986 | 1.64641 | 1.67841 | 1.69648 |
| 18.0000 | 1845.65759 | 2.00000 | 1845.65759 | 235.79776 | 1094.20544 | 1.30207 | 1.32026 | 1.33574 | 1.65689 | 1.68766 | 1.72544 |
| 20.0000 | 1847.25053 | 2.00000 | 1847.25053 | 235.88139 | 1094.62527 | 1.31287 | 1.33086 | 1.34934 | 1.66198 | 1.69242 | 1.70349 |
| 22.0000 | 1847.20595 | 2.00000 | 1847.20595 | 235.88139 | 1094.59354 | 1.31659 | 1.33889 | 1.35537 | 1.64612 | 1.67128 | 1.69894 |
| 24.0000 | 1846.34912 | 2.00000 | 1846.34912 | 235.77158 | 1094.08394 | 1.32950 | 1.35329 | 1.36915 | 1.65236 | 1.67918 | 1.69711 |
| GRADIENT | -.29651 | .00000 | -.29651 | -.03897 | -.18083 | .00409 | .00387 | .00361 | -.00060 | -.00089 | -.00122 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M42 | M42 | M42 | M44 | M54 | M64 |
|----------|------------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 2.2500 | 2058.21463 | 2.00000 | 2058.21463 | 178.10006 | 1068.92479 | 1.23669 | 1.29054 | 1.32451 | 1.76821 | 1.83158 | 1.87325 |
| 4.0000 | 2059.05692 | 2.00000 | 2059.05692 | 178.08647 | 1068.84325 | 1.24240 | 1.29677 | 1.32969 | 1.76773 | 1.83342 | 1.86360 |
| 6.0000 | 2059.38257 | 2.00000 | 2059.38257 | 178.11435 | 1069.01056 | 1.25220 | 1.30238 | 1.33753 | 1.76685 | 1.81625 | 1.85997 |
| 8.0000 | 2059.19321 | 2.00000 | 2059.19321 | 178.09820 | 1069.01354 | 1.26719 | 1.31502 | 1.34837 | 1.76035 | 1.81781 | 1.85820 |
| 10.0000 | 2059.07995 | 2.00000 | 2059.07995 | 178.08239 | 1068.85469 | 1.28677 | 1.32474 | 1.35614 | 1.76024 | 1.81393 | 1.85180 |
| 12.0000 | 2059.48204 | 2.00000 | 2059.48204 | 178.12256 | 1069.05963 | 1.29665 | 1.33358 | 1.36094 | 1.76408 | 1.81658 | 1.84352 |
| 14.0000 | 2059.67632 | 2.00000 | 2059.67632 | 178.04732 | 1069.62146 | 1.30500 | 1.34743 | 1.37353 | 1.77340 | 1.82287 | 1.85170 |
| 16.0000 | 2058.61588 | 2.00000 | 2058.61588 | 178.08793 | 1069.85205 | 1.31358 | 1.35194 | 1.37852 | 1.77652 | 1.81985 | 1.85060 |
| 18.0000 | 2058.53250 | 2.00000 | 2058.53250 | 178.04855 | 1068.61566 | 1.33325 | 1.36733 | 1.39171 | 1.78106 | 1.82153 | 1.84722 |
| 20.0000 | 2058.52417 | 2.00000 | 2058.52417 | 178.04135 | 1068.57248 | 1.34364 | 1.40152 | 1.41122 | 1.78867 | 1.81850 | 1.84153 |
| 22.0000 | 2058.59705 | 2.00000 | 2058.59705 | 178.04666 | 1068.60429 | 1.35543 | 1.41378 | 1.40945 | 1.78953 | 1.81666 | 1.82267 |
| 24.0000 | 2058.37756 | 2.00000 | 2058.37756 | 178.02781 | 1068.49115 | 1.40867 | 1.44546 | 1.47001 | 1.84771 | 1.89148 | 1.92679 |
| GRADIENT | -.04193 | .00000 | -.04193 | .00357 | .02144 | .00296 | .00366 | .00359 | -.00259 | -.00383 | -.00357 |

TABULATED DATA - OAI61 (ARC 11-97-87-094)
ARC 11-97-87-094 OAI61 ORBITER + RAKES.

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0307

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.178

RVL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|--------|---------|-------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| 2.500 | .000 | 2.00000 | 1487.32057 | 86.97802 | 654.60834 | 1.31853 | 1.39938 | 1.44772 | 1.91779 | 2.02015 | 2.08204 |
| 2.000 | 2.000 | 2.00000 | 1487.99101 | 87.01835 | 654.91200 | 1.31709 | 1.39452 | 1.44069 | 1.90395 | 2.00144 | 2.06018 |
| 4.000 | 4.000 | 2.00000 | 1487.96725 | 87.01707 | 654.90228 | 1.32803 | 1.40443 | 1.45341 | 1.89562 | 1.97530 | 2.05727 |
| 6.000 | 6.000 | 2.00000 | 1487.96211 | 87.01569 | 654.89940 | 1.34441 | 1.41836 | 1.46526 | 1.90593 | 1.99326 | 2.05737 |
| 8.000 | 8.000 | 2.00000 | 1487.95708 | 87.01443 | 654.89824 | 1.36184 | 1.43052 | 1.47277 | 1.90885 | 1.99429 | 2.04708 |
| 10.000 | 10.000 | 2.00000 | 1487.951705 | 87.01338 | 654.89843 | 1.37947 | 1.44506 | 1.48439 | 1.9209 | 2.00966 | 2.05834 |
| 12.000 | 12.000 | 2.00000 | 1487.94314 | 87.01243 | 654.89956 | 1.39301 | 1.45362 | 1.49390 | 1.93590 | 2.02407 | 2.07097 |
| 14.000 | 14.000 | 2.00000 | 1487.93239 | 87.01163 | 654.89538 | 1.40665 | 1.46075 | 1.49705 | 1.95131 | 1.99900 | 2.08301 |
| 16.000 | 16.000 | 2.00000 | 1487.92475 | 87.01104 | 654.89454 | 1.42102 | 1.46834 | 1.50435 | 1.96178 | 2.00180 | 2.04639 |
| 18.000 | 18.000 | 2.00000 | 1487.92914 | 87.01052 | 654.88682 | 1.43710 | 1.47410 | 1.51111 | 1.95509 | 1.99266 | 2.03823 |
| 20.000 | 20.000 | 2.00000 | 1487.96275 | 87.01027 | 654.90379 | 1.44373 | 1.48824 | 1.52460 | 1.93757 | 1.99181 | 2.03633 |
| 22.000 | 22.000 | 2.00000 | 1487.95438 | 87.01694 | 654.90131 | 1.46551 | 1.50971 | 1.54526 | 1.94044 | 1.99394 | 2.03713 |
| 24.000 | 24.000 | 2.00000 | 1487.98357 | 87.01867 | 654.91432 | 1.48296 | 1.52842 | 1.56466 | 1.94217 | 1.99585 | 2.04062 |
| GRADIENT | | | .16166 | .00976 | .07349 | .00238 | .00126 | .00142 | -.00454 | -.00621 | -.00619 |

RVL = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|--------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| 3.000 | .000 | 2.00000 | 1939.15904 | 51.12361 | 565.47639 | 1.41690 | 1.54851 | 1.62349 | 2.15290 | 2.33019 | 2.43242 |
| 2.000 | 2.000 | 2.00000 | 1940.13321 | 51.14938 | 565.76151 | 1.42360 | 1.55295 | 1.63156 | 2.15880 | 2.33297 | 2.44009 |
| 4.000 | 4.000 | 2.00000 | 1939.45256 | 51.13434 | 565.59507 | 1.42807 | 1.55533 | 1.63220 | 2.13983 | 2.30963 | 2.41336 |
| 6.000 | 6.000 | 2.00000 | 1939.50589 | 51.13526 | 565.63524 | 1.44914 | 1.57149 | 1.64375 | 2.15471 | 2.31732 | 2.41467 |
| 8.000 | 8.000 | 2.00000 | 1939.64354 | 51.14013 | 565.65913 | 1.49309 | 1.60628 | 1.67358 | 2.17743 | 2.32671 | 2.41619 |
| 10.000 | 10.000 | 2.00000 | 1937.17825 | 51.07750 | 564.96639 | 1.49078 | 1.59811 | 1.66180 | 2.18096 | 2.32278 | 2.40762 |
| 12.000 | 12.000 | 2.00000 | 1938.09195 | 51.10284 | 565.24663 | 1.51531 | 1.61417 | 1.67546 | 2.20831 | 2.33897 | 2.42057 |
| 14.000 | 14.000 | 2.00000 | 1937.60145 | 51.08700 | 565.07146 | 1.54055 | 1.63046 | 1.69070 | 2.22434 | 2.34264 | 2.40495 |
| 16.000 | 16.000 | 2.00000 | 1938.66942 | 51.13221 | 565.57153 | 1.55251 | 1.63434 | 1.69520 | 2.22451 | 2.32407 | 2.40245 |
| 18.000 | 18.000 | 2.00000 | 1938.54479 | 51.11276 | 565.35637 | 1.57152 | 1.64818 | 1.70820 | 2.22426 | 2.32011 | 2.39794 |
| 20.000 | 20.000 | 2.00000 | 1938.72614 | 51.12192 | 565.45771 | 1.58785 | 1.66216 | 1.72219 | 2.21692 | 2.31060 | 2.36650 |
| 22.000 | 22.000 | 2.00000 | 1938.94317 | 51.12888 | 565.53468 | 1.59784 | 1.67096 | 1.73147 | 2.21692 | 2.31060 | 2.37341 |
| 24.000 | 24.000 | 2.00000 | 1938.90468 | 51.12835 | 565.52891 | 1.60634 | 1.68014 | 1.74168 | 2.20127 | 2.29494 | 2.37341 |
| GRADIENT | | | .07343 | .00268 | .02967 | .00279 | .00171 | .00218 | -.00327 | -.00514 | -.00476 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

PN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|--------------|----------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| | .000 | 2.00000 | 2667.88812 | 34.95021 | 532.71109 | 1.44240 | 1.61806 | 1.72078 | 2.27904 | 2.52550 | 2.67167 |
| | 2.000 | 2.00000 | 2667.98584 | 34.95149 | 532.73055 | 1.45044 | 1.62288 | 1.72774 | 2.29274 | 2.53482 | 2.68453 |
| | 4.000 | 2.00000 | 2667.55579 | 34.94600 | 532.64699 | 1.46627 | 1.63480 | 1.73678 | 2.29452 | 2.53000 | 2.67434 |
| | 6.000 | 2.00000 | 2668.66705 | 34.96039 | 532.86630 | 1.48634 | 1.65294 | 1.75087 | 2.31061 | 2.54813 | 2.68656 |
| | 8.000 | 2.00000 | 2668.83286 | 34.96260 | 532.89992 | 1.50927 | 1.66691 | 1.75771 | 2.31935 | 2.55918 | 2.68637 |
| | 10.000 | 2.00000 | 2667.49628 | 34.94465 | 532.62630 | 1.54011 | 1.69242 | 1.78883 | 2.34229 | 2.53844 | 2.65866 |
| | 12.000 | 2.00000 | 2669.69775 | 34.97392 | 533.07244 | 1.56664 | 1.69820 | 1.78337 | 2.35535 | 2.53560 | 2.65309 |
| | 14.000 | 2.00000 | 2668.86501 | 34.96312 | 532.90790 | 1.59480 | 1.71080 | 1.79813 | 2.37335 | 2.53916 | 2.65927 |
| | 16.000 | 2.00000 | 2659.65951 | 34.97344 | 533.06512 | 1.61813 | 1.72953 | 1.81458 | 2.39239 | 2.54364 | 2.65969 |
| | 18.000 | 2.00000 | 2668.67300 | 34.96078 | 532.87227 | 1.63967 | 1.74387 | 1.82648 | 2.39159 | 2.53174 | 2.64361 |
| | 20.000 | 2.00000 | 2670.18805 | 34.98034 | 533.17038 | 1.64390 | 1.74496 | 1.82717 | 2.37402 | 2.50883 | 2.61914 |
| | 22.000 | 2.00000 | 2668.19308 | 34.95369 | 532.76417 | 1.65283 | 1.75332 | 1.83958 | 2.35532 | 2.49877 | 2.60248 |
| | 24.000 | 2.00000 | 2670.01153 | 34.97799 | 533.13459 | 1.65271 | 1.75391 | 1.84052 | 2.34053 | 2.47340 | 2.58776 |
| | GRADIENT | .00000 | -.08307 | -.00105 | -.01603 | .00597 | .00418 | .00400 | .00387 | .00113 | .00067 |

(FE7X07) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094-0A161 ORBITER + RAKES

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 5.0000 ELEVON = .0000
 AIRLON = .0000 BOFLAP = -7.170

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .0000 | 5.0000 | 2624.00095 | 2057.68289 | 566.31805 | .54485 | .54485 | .54485 | .63612 | .63591 | .63596 |
| 2.000 | .0000 | 5.0000 | 2623.93231 | 2057.61972 | 566.31259 | .53814 | .53814 | .53814 | .62818 | .62814 | .62817 |
| 4.000 | .0000 | 5.0000 | 2624.85635 | 2058.36877 | 566.48758 | .53440 | .53440 | .53440 | .62429 | .62484 | .62509 |
| 6.000 | .0000 | 5.0000 | 2627.65573 | 2060.37476 | 567.28098 | .54025 | .54025 | .54025 | .62515 | .62522 | .62529 |
| 8.000 | .0000 | 5.0000 | 2625.01135 | 2058.40189 | 566.60947 | .54122 | .54122 | .54122 | .62007 | .62011 | .62018 |
| 10.000 | .0000 | 5.0000 | 2624.86369 | 2059.00568 | 566.85800 | .54439 | .54439 | .54439 | .61997 | .62012 | .62026 |
| 12.000 | .0000 | 5.0000 | 2624.17407 | 2057.86670 | 566.30737 | .55138 | .55140 | .55144 | .61930 | .61932 | .61936 |
| 14.000 | .0000 | 5.0000 | 2624.55069 | 2058.02087 | 566.33981 | .56086 | .56133 | .56104 | .62412 | .62455 | .62429 |
| 16.000 | .0000 | 5.0000 | 2624.72936 | 2058.21182 | 566.51654 | .57017 | .57037 | .57042 | .62675 | .62694 | .62699 |
| 18.000 | .0000 | 5.0000 | 2627.18732 | 2059.96523 | 567.20209 | .58247 | .58272 | .58289 | .62932 | .62955 | .62971 |
| 20.000 | .0000 | 5.0000 | 2627.48154 | 2060.22618 | 567.25336 | .59843 | .59879 | .59914 | .63629 | .63663 | .63696 |
| 22.000 | .0000 | 5.0000 | 2625.04254 | 2058.51157 | 566.53098 | .61177 | .61268 | .61341 | .64202 | .64289 | .64359 |
| 24.000 | .0000 | 5.0000 | 2625.30452 | 2059.18518 | 566.72034 | .62358 | .62645 | .62693 | .64544 | .64623 | .64670 |
| GRADIENT | | | .21387 | .17145 | .04238 | -.00277 | -.00261 | -.00248 | -.00296 | -.00282 | -.00270 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .600 | .0000 | 5.0000 | 2111.48715 | 1248.50783 | 862.97934 | .70777 | .70758 | .70727 | .89294 | .89278 | .89252 |
| 2.000 | .0000 | 5.0000 | 2115.43283 | 1250.78174 | 864.65109 | .70746 | .70747 | .70744 | .88503 | .88505 | .88502 |
| 4.000 | .0000 | 5.0000 | 2117.10138 | 1251.73029 | 865.37109 | .70716 | .70756 | .70723 | .87335 | .87368 | .87341 |
| 6.000 | .0000 | 5.0000 | 2114.79214 | 1250.37328 | 864.41888 | .70704 | .70678 | .70679 | .86429 | .86407 | .86407 |
| 8.000 | .0000 | 5.0000 | 2109.95957 | 1247.40534 | 862.56323 | .70889 | .70875 | .70916 | .85556 | .85544 | .85579 |
| 10.000 | .0000 | 5.0000 | 2116.58933 | 1251.47731 | 865.09103 | .71930 | .71952 | .71960 | .85197 | .85217 | .85224 |
| 12.000 | .0000 | 5.0000 | 2116.71036 | 1251.56195 | 865.14841 | .72789 | .72787 | .72773 | .84798 | .84797 | .84795 |
| 14.000 | .0000 | 5.0000 | 2112.28323 | 1248.92517 | 863.37808 | .73756 | .73765 | .73766 | .84669 | .84677 | .84678 |
| 16.000 | .0000 | 5.0000 | 2114.90225 | 1250.43449 | 864.47287 | .75021 | .75067 | .75080 | .84847 | .84839 | .84830 |
| 18.000 | .0000 | 5.0000 | 2115.67446 | 1250.94667 | 864.80880 | .76372 | .76435 | .76451 | .84988 | .84986 | .84980 |
| 20.000 | .0000 | 5.0000 | 2109.11169 | 1246.37889 | 861.73262 | .78001 | .78080 | .78095 | .85481 | .85554 | .85568 |
| 22.000 | .0000 | 5.0000 | 2109.57099 | 1247.37915 | 862.59174 | .80153 | .80253 | .80284 | .86474 | .86568 | .86582 |
| 24.000 | .0000 | 5.0000 | 2116.70166 | 1251.42284 | 865.27884 | .82264 | .82498 | .82550 | .86957 | .87172 | .87222 |
| GRADIENT | | | 1.40354 | .89562 | .59794 | -.00015 | -.00001 | -.00001 | -.00490 | -.00477 | -.00478 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

TABLATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-094 0A161 ORBITER - RAKES.

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BPEF = 936.6900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDELAP = -7.178

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|---------|------------|-----------|------------|--------|--------|--------|---------|---------|---------|
| 1.200 | 5.00000 | 2011.53369 | 829.44221 | 1167.44115 | .82466 | .82509 | .82537 | 1.02474 | 1.02510 | 1.02535 |
| ALPHA | 5.00000 | 2009.60754 | 828.83453 | 1166.58563 | .82332 | .82362 | .82417 | 1.03152 | 1.03178 | 1.03225 |
| .000 | 5.00000 | 2010.79175 | 829.08212 | 1166.93431 | .82861 | .82928 | .82969 | 1.02168 | 1.02226 | 1.02253 |
| 2.000 | 5.00000 | 2013.55270 | 830.00262 | 1168.22992 | .83518 | .83593 | .83600 | 1.01324 | 1.01324 | 1.01330 |
| 4.000 | 5.00000 | 2013.06412 | 829.84943 | 1168.01431 | .84071 | .84126 | .84158 | 1.01585 | 1.01632 | 1.01651 |
| 6.000 | 5.00000 | 2013.08351 | 829.88634 | 1168.06627 | .85099 | .85144 | .85198 | 1.03717 | 1.03757 | 1.03801 |
| 8.000 | 5.00000 | 2013.32959 | 831.14828 | 1168.43494 | .85720 | .85755 | .85813 | 1.05536 | 1.05626 | 1.05677 |
| 10.000 | 5.00000 | 2014.49037 | 830.35471 | 1169.72548 | .86562 | .86546 | .86599 | 1.05455 | 1.05476 | 1.05522 |
| 12.000 | 5.00000 | 2014.72244 | 830.37983 | 1169.75085 | .88019 | .88072 | .88116 | 1.05573 | 1.05534 | 1.05573 |
| 14.000 | 5.00000 | 2016.26015 | 830.79547 | 1169.34586 | .89330 | .89378 | .89474 | 1.06576 | 1.06660 | 1.06699 |
| 16.000 | 5.00000 | 2016.08565 | 831.44070 | 1170.25401 | .91378 | .91516 | .91536 | 1.07245 | 1.07361 | 1.07389 |
| 18.000 | 5.00000 | 2016.50551 | 830.88952 | 1169.47824 | .92706 | .92863 | .92881 | 1.07426 | 1.07570 | 1.07587 |
| 20.000 | 5.00000 | 2018.10297 | 831.41154 | 1170.21298 | .94414 | .94601 | .94625 | 1.07853 | 1.08028 | 1.08050 |
| 22.000 | 5.00000 | 2018.19549 | 831.41154 | 1170.21298 | .94414 | .94601 | .94625 | 1.07853 | 1.08028 | 1.08050 |
| 24.000 | 5.00000 | 2018.19549 | 831.41154 | 1170.21298 | .94414 | .94601 | .94625 | 1.07853 | 1.08028 | 1.08050 |
| GRADIENT | .00000 | -.19549 | -.09002 | -.12671 | .00099 | .00105 | .00106 | -.00076 | -.00071 | -.00070 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.400 | 5.00000 | 2051.64871 | 644.49467 | 1320.72128 | .93869 | .94315 | .94712 | 1.22246 | 1.22568 | 1.22932 |
| ALPHA | 5.00000 | 2052.59506 | 644.77777 | 1321.30142 | .93890 | .94107 | .94501 | 1.21479 | 1.21681 | 1.22048 |
| .000 | 5.00000 | 2045.37286 | 642.84837 | 1317.34763 | .94490 | .94710 | .95058 | 1.20728 | 1.20934 | 1.21259 |
| 2.000 | 5.00000 | 2043.72565 | 642.53147 | 1316.49332 | .94974 | .95131 | .95472 | 1.20276 | 1.20423 | 1.20741 |
| 4.000 | 5.00000 | 2038.74538 | 641.18606 | 1313.94118 | .95599 | .95781 | .96101 | 1.20044 | 1.20214 | 1.20515 |
| 6.000 | 5.00000 | 2037.39092 | 640.82363 | 1313.19847 | .95973 | .96660 | .96919 | 1.19442 | 1.20118 | 1.20363 |
| 8.000 | 5.00000 | 2038.57326 | 641.10538 | 1313.77788 | .97241 | .97431 | .97730 | 1.20007 | 1.20187 | 1.20443 |
| 10.000 | 5.00000 | 2044.59929 | 642.69520 | 1315.77188 | .98539 | .98801 | .99056 | 1.20508 | 1.20663 | 1.20917 |
| 12.000 | 5.00000 | 2042.54944 | 642.03665 | 1315.78711 | 1.00070 | 1.00166 | 1.00450 | 1.20574 | 1.20785 | 1.21042 |
| 14.000 | 5.00000 | 2029.50903 | 638.78069 | 1309.01199 | 1.00481 | 1.00609 | 1.00893 | 1.20172 | 1.20297 | 1.20512 |
| 16.000 | 5.00000 | 2032.62077 | 639.45005 | 1310.48613 | 1.01111 | 1.01309 | 1.01589 | 1.20292 | 1.20485 | 1.20757 |
| 18.000 | 5.00000 | 2035.48626 | 640.41441 | 1312.75988 | 1.02304 | 1.02598 | 1.02894 | 1.20822 | 1.21094 | 1.21334 |
| 20.000 | 5.00000 | 2020.62016 | 636.51413 | 1304.36728 | 1.02828 | 1.03161 | 1.03443 | 1.20338 | 1.20535 | 1.20814 |
| 22.000 | 5.00000 | 2020.62016 | 636.51413 | 1304.36728 | 1.02828 | 1.03161 | 1.03443 | 1.20338 | 1.20535 | 1.20814 |
| 24.000 | 5.00000 | 2020.62016 | 636.51413 | 1304.36728 | 1.02828 | 1.03161 | 1.03443 | 1.20338 | 1.20535 | 1.20814 |
| GRADIENT | .00000 | -.15659 | -.41158 | -.64341 | .00130 | .00099 | .00087 | -.00379 | -.00409 | -.00420 |

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OF POOR QUALITY.

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

REFERENCE DATA
SREF = 2690.0000 SQ.FT.
LREF = 474.8000 IN.
BREF = 936.6800 IN.
SCALE = .0300

BETA = 5.000
AILRON = .000
ELEVON = .000
BDELAP = -7.170

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.550 | .000 | 5.00000 | 1561.82259 | 396.34618 | 1032.75972 | .98282 | .99059 | .99583 | 1.31421 | 1.32184 | 1.32703 |
| 2.000 | .000 | 5.00000 | 1563.04628 | 396.65676 | 1033.56905 | .98286 | .99149 | .99666 | 1.31095 | 1.31942 | 1.32453 |
| 4.000 | .000 | 5.00000 | 1563.16922 | 396.65947 | 1033.59172 | .98890 | .99734 | 1.00159 | 1.31145 | 1.32016 | 1.32459 |
| 6.000 | .000 | 5.00000 | 1563.46620 | 396.74025 | 1033.78656 | 1.00154 | 1.00820 | 1.01329 | 1.31018 | 1.31679 | 1.32134 |
| 8.000 | .000 | 5.00000 | 1567.33949 | 397.71354 | 1036.32699 | 1.01298 | 1.01905 | 1.02427 | 1.31004 | 1.31610 | 1.32134 |
| 10.000 | .000 | 5.00000 | 1572.23886 | 398.95424 | 1039.55556 | 1.02708 | 1.02793 | 1.03268 | 1.30900 | 1.31435 | 1.31913 |
| 12.000 | .000 | 5.00000 | 1570.17735 | 398.42982 | 1038.18909 | 1.02708 | 1.03268 | 1.03708 | 1.30382 | 1.30893 | 1.31302 |
| 14.000 | .000 | 5.00000 | 1568.15364 | 397.92425 | 1036.87173 | 1.03635 | 1.04076 | 1.04370 | 1.30678 | 1.31121 | 1.31419 |
| 16.000 | .000 | 5.00000 | 1568.63318 | 398.03831 | 1037.16893 | 1.04263 | 1.04698 | 1.05133 | 1.30683 | 1.31120 | 1.31562 |
| 18.000 | .000 | 5.00000 | 1568.80665 | 398.07167 | 1037.25586 | 1.05218 | 1.05693 | 1.06240 | 1.30877 | 1.31563 | 1.31916 |
| 20.000 | .000 | 5.00000 | 1568.97487 | 398.12064 | 1037.38345 | 1.06628 | 1.07310 | 1.07615 | 1.29901 | 1.30594 | 1.30905 |
| 22.000 | .000 | 5.00000 | 1571.11673 | 398.66939 | 1039.91490 | 1.08012 | 1.08452 | 1.08930 | 1.28237 | 1.28685 | 1.29071 |
| 24.000 | .000 | 5.00000 | 1571.43858 | 398.73845 | 1038.99330 | 1.09009 | 1.09324 | 1.09636 | 1.23540 | 1.23861 | 1.24180 |
| GRADIENT | | | .33665 | .07983 | .20800 | .00142 | .00169 | .00144 | -.00069 | -.00042 | -.00066 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|----------|-------|---------|------------|-----------|------------|---------|---------|---------|---------|---------|---------|
| 1.750 | .000 | 5.00000 | 1555.65865 | 310.98268 | 1070.81854 | 1.05984 | 1.07492 | 1.08555 | 1.42115 | 1.43732 | 1.44866 |
| 2.000 | .000 | 5.00000 | 1555.87311 | 311.02239 | 1070.95529 | 1.05534 | 1.07878 | 1.08937 | 1.41611 | 1.43032 | 1.44116 |
| 4.000 | .000 | 5.00000 | 1555.91648 | 311.01186 | 1070.91904 | 1.06846 | 1.09269 | 1.09230 | 1.42059 | 1.43575 | 1.44500 |
| 5.000 | .000 | 5.00000 | 1555.93960 | 311.04603 | 1071.38102 | 1.07943 | 1.09216 | 1.10150 | 1.42228 | 1.43680 | 1.44577 |
| 6.000 | .000 | 5.00000 | 1555.73843 | 310.99725 | 1070.86871 | 1.08890 | 1.10036 | 1.10850 | 1.41995 | 1.43123 | 1.43932 |
| 8.000 | .000 | 5.00000 | 1555.74200 | 310.99860 | 1070.87334 | 1.09361 | 1.10459 | 1.11362 | 1.41658 | 1.42824 | 1.43744 |
| 10.000 | .000 | 5.00000 | 1554.84193 | 310.82005 | 1070.25854 | 1.10336 | 1.11224 | 1.12125 | 1.41553 | 1.42497 | 1.43458 |
| 12.000 | .000 | 5.00000 | 1554.26360 | 311.08286 | 1071.19794 | 1.11136 | 1.11913 | 1.12694 | 1.41845 | 1.42671 | 1.43505 |
| 14.000 | .000 | 5.00000 | 1554.33867 | 311.05466 | 1071.06638 | 1.12146 | 1.12862 | 1.13785 | 1.42198 | 1.42938 | 1.43758 |
| 16.000 | .000 | 5.00000 | 1554.22122 | 310.85934 | 1070.78005 | 1.13284 | 1.13995 | 1.14870 | 1.42615 | 1.43377 | 1.44133 |
| 18.000 | .000 | 5.00000 | 1554.33904 | 310.92910 | 1070.18747 | 1.14238 | 1.14989 | 1.15777 | 1.42433 | 1.43222 | 1.44075 |
| 20.000 | .000 | 5.00000 | 1554.71509 | 310.98600 | 1070.82997 | 1.15247 | 1.16045 | 1.16774 | 1.41403 | 1.42251 | 1.43029 |
| 22.000 | .000 | 5.00000 | 1555.66179 | 311.16761 | 1071.45531 | 1.16072 | 1.16793 | 1.17554 | 1.41075 | 1.41840 | 1.42660 |
| GRADIENT | | | .03916 | .00730 | .02512 | .00221 | .00194 | .00169 | -.00012 | -.00039 | -.00066 |

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BPEF = 936.8800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | BETA | PT | P | QCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|--------------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA .000 | 5.00000 | 1487.41809 | 86.99371 | 654.65117 | 1.27631 | 1.34988 | 1.38842 | 1.83860 | 1.92987 | 1.97822 |
| 2.000 | 5.00000 | 1487.53204 | 86.99042 | 654.70170 | 1.28283 | 1.35513 | 1.39536 | 1.84524 | 1.93501 | 1.98550 |
| 4.000 | 5.00000 | 1487.58736 | 86.99367 | 654.72614 | 1.29008 | 1.36127 | 1.40268 | 1.83941 | 1.92739 | 1.97936 |
| 6.000 | 5.00000 | 1487.58563 | 86.99354 | 654.72616 | 1.29527 | 1.36607 | 1.40520 | 1.82724 | 1.91416 | 1.96270 |
| 8.000 | 5.00000 | 1487.60351 | 86.99329 | 654.73932 | 1.31309 | 1.37679 | 1.41370 | 1.83817 | 1.91626 | 1.95191 |
| 10.000 | 5.00000 | 1487.63735 | 86.99718 | 654.75346 | 1.32730 | 1.38623 | 1.42286 | 1.84472 | 1.91679 | 1.95195 |
| 12.000 | 5.00000 | 1487.65515 | 86.99718 | 654.75350 | 1.33987 | 1.39440 | 1.43107 | 1.84583 | 1.91634 | 1.95040 |
| 14.000 | 5.00000 | 1487.64552 | 86.99771 | 654.75357 | 1.35283 | 1.40443 | 1.43952 | 1.85273 | 1.91550 | 1.95646 |
| 16.000 | 5.00000 | 1487.63356 | 86.99771 | 654.75360 | 1.36569 | 1.41586 | 1.45031 | 1.85507 | 1.91441 | 1.95640 |
| 18.000 | 5.00000 | 1487.64488 | 86.99399 | 654.76619 | 1.38167 | 1.42715 | 1.46085 | 1.85765 | 1.91252 | 1.95339 |
| 20.000 | 5.00000 | 1487.60657 | 86.99642 | 654.76684 | 1.39462 | 1.43937 | 1.47350 | 1.84631 | 1.89451 | 1.94081 |
| 22.000 | 5.00000 | 1487.51205 | 86.99361 | 654.74579 | 1.41099 | 1.45099 | 1.48543 | 1.84212 | 1.89451 | 1.93573 |
| 24.000 | 5.00000 | 1487.57354 | 86.99321 | 654.73773 | 1.41980 | 1.46218 | 1.49584 | 1.83654 | 1.89554 | 1.92643 |
| 26.000 | 5.00000 | 1487.57373 | 86.99321 | 654.73773 | 1.41980 | 1.46218 | 1.49584 | 1.83654 | 1.89554 | 1.92643 |
| 3642.541 | .00000 | 94233 | .00249 | .01874 | .00344 | .00265 | .00351 | .00020 | .00062 | .00028 |

RM/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | BETA | PT | P | QCOMP | M42 | M52 | M62 | M44 | M54 | M64 |
|--------------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA .000 | 5.00000 | 1935.46461 | 91.12282 | 565.45770 | 1.38903 | 1.51085 | 1.57319 | 2.07363 | 2.23432 | 2.31752 |
| 2.000 | 5.00000 | 1937.72949 | 91.07816 | 564.97363 | 1.39323 | 1.51813 | 1.58378 | 2.07322 | 2.23472 | 2.32122 |
| 4.000 | 5.00000 | 1938.65351 | 91.08626 | 565.56321 | 1.40515 | 1.52451 | 1.58939 | 2.07917 | 2.23555 | 2.32216 |
| 6.000 | 5.00000 | 1938.62311 | 91.09901 | 565.20436 | 1.41505 | 1.53248 | 1.59641 | 2.07917 | 2.23555 | 2.32216 |
| 8.000 | 5.00000 | 1938.44812 | 91.09924 | 565.15661 | 1.42690 | 1.54033 | 1.60307 | 2.07917 | 2.23555 | 2.32216 |
| 10.000 | 5.00000 | 1938.11209 | 91.09923 | 565.17673 | 1.43680 | 1.54671 | 1.60807 | 2.07917 | 2.23555 | 2.32216 |
| 12.000 | 5.00000 | 1938.09316 | 91.09923 | 565.12321 | 1.44514 | 1.55174 | 1.61191 | 2.07917 | 2.23555 | 2.32216 |
| 14.000 | 5.00000 | 1938.01292 | 91.09923 | 565.24744 | 1.45119 | 1.55580 | 1.61590 | 2.07917 | 2.23555 | 2.32216 |
| 16.000 | 5.00000 | 1938.01292 | 91.09923 | 565.24744 | 1.45119 | 1.55580 | 1.61590 | 2.07917 | 2.23555 | 2.32216 |
| 18.000 | 5.00000 | 1938.01292 | 91.09923 | 565.24744 | 1.45119 | 1.55580 | 1.61590 | 2.07917 | 2.23555 | 2.32216 |
| 20.000 | 5.00000 | 1938.01292 | 91.09923 | 565.24744 | 1.45119 | 1.55580 | 1.61590 | 2.07917 | 2.23555 | 2.32216 |
| 22.000 | 5.00000 | 1938.01292 | 91.09923 | 565.24744 | 1.45119 | 1.55580 | 1.61590 | 2.07917 | 2.23555 | 2.32216 |
| 24.000 | 5.00000 | 1938.01292 | 91.09923 | 565.24744 | 1.45119 | 1.55580 | 1.61590 | 2.07917 | 2.23555 | 2.32216 |
| 26.000 | 5.00000 | 1938.01292 | 91.09923 | 565.24744 | 1.45119 | 1.55580 | 1.61590 | 2.07917 | 2.23555 | 2.32216 |
| 3642.541 | .00000 | 94233 | .00249 | .01874 | .00344 | .00265 | .00351 | .00020 | .00062 | .00028 |

TABULATED DATA - 0A161 (ARC 11-97-87-09#)

ARC 11-97-87-09# 0A161 ORBITER + RAKES

(1E7X07) (02 AUG 76)

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 3.500

| ALPHA | BETA | PT | P | QCOMP | M#2 | M#2 | M#2 | M#4 | M#4 | M#4 | MS# | MS# |
|----------|---------|------------|----------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| .000 | 5.00000 | 2693.02945 | 35.14780 | 535.72283 | 1.43310 | 1.59447 | 1.68004 | 2.21258 | 2.43401 | 2.53297 | 2.43401 | 2.53297 |
| 2.000 | 5.00000 | 2682.78693 | 35.14482 | 535.67336 | 1.44019 | 1.60552 | 1.69547 | 2.22010 | 2.44703 | 2.57211 | 2.44703 | 2.57211 |
| 4.000 | 5.00000 | 2680.96332 | 35.12155 | 535.32265 | 1.45205 | 1.61426 | 1.70209 | 2.21557 | 2.43575 | 2.55759 | 2.43575 | 2.55759 |
| 6.000 | 5.00000 | 2682.66359 | 35.14306 | 535.65353 | 1.46750 | 1.62329 | 1.70864 | 2.22208 | 2.43356 | 2.55393 | 2.43356 | 2.55393 |
| 8.000 | 5.00000 | 2687.66255 | 35.11761 | 535.26256 | 1.48884 | 1.63589 | 1.72011 | 2.23913 | 2.43933 | 2.55352 | 2.43933 | 2.55352 |
| 10.000 | 5.00000 | 2682.31409 | 35.13848 | 535.58065 | 1.51803 | 1.64886 | 1.73094 | 2.25295 | 2.42687 | 2.54024 | 2.42687 | 2.54024 |
| 12.000 | 5.00000 | 2690.79322 | 35.11946 | 535.29087 | 1.53789 | 1.65307 | 1.74349 | 2.25644 | 2.41823 | 2.53187 | 2.41823 | 2.53187 |
| 14.000 | 5.00000 | 2681.94269 | 35.13391 | 535.51109 | 1.55019 | 1.67624 | 1.75902 | 2.27468 | 2.42924 | 2.54032 | 2.42924 | 2.54032 |
| 16.000 | 5.00000 | 2680.82974 | 35.11878 | 535.28040 | 1.56434 | 1.69654 | 1.78009 | 2.27920 | 2.42752 | 2.53950 | 2.42752 | 2.53950 |
| 18.000 | 5.00000 | 2680.17957 | 35.11156 | 535.17036 | 1.59405 | 1.70109 | 1.78642 | 2.28217 | 2.42007 | 2.53431 | 2.42007 | 2.53431 |
| 20.000 | 5.00000 | 2682.18320 | 35.13710 | 535.55972 | 1.61040 | 1.71595 | 1.79379 | 2.27181 | 2.40931 | 2.53921 | 2.40931 | 2.53921 |
| 22.000 | 5.00000 | 2680.60205 | 35.11565 | 535.23274 | 1.61907 | 1.72498 | 1.80895 | 2.25910 | 2.39594 | 2.53294 | 2.39594 | 2.53294 |
| 24.000 | 5.00000 | 2680.41901 | 35.11479 | 535.21957 | 1.62595 | 1.73166 | 1.81287 | 2.23995 | 2.37409 | 2.47851 | 2.37409 | 2.47851 |
| GRADIENT | .00300 | -.51654 | -.00656 | -.10005 | .00474 | .00495 | .00551 | .00075 | .00068 | .00125 | .00068 | .00125 |

ARC 11-97-87-09# 0A161 ORBITER - WING + RAKES

(1E7H01) (02 AUG 75)

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 4.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH = .600

| ALPHA | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .000 | .16121 | 2559.30345 | 554.56500 | 1.00223 | 1.00173 | .99863 | 1.00223 | 1.00133 | 1.00043 | -.20547 |
| 4.000 | .20773 | 2567.24118 | 554.11072 | 1.00283 | 1.00129 | 1.00051 | 1.00095 | 1.00230 | 1.00044 | -.19752 |
| 8.000 | .21723 | 2555.95739 | 553.89535 | 1.00139 | 1.00139 | 1.00135 | 1.00082 | 1.00142 | 1.00138 | -.19579 |
| 12.000 | .20851 | 2557.01569 | 554.95931 | 1.00131 | 1.00138 | 1.00147 | 1.00059 | 1.00099 | 1.00054 | -.22535 |
| 16.000 | .22893 | 2570.76517 | 554.90057 | .99930 | 1.00003 | .99996 | .99832 | 1.00059 | .99838 | -.25501 |
| 20.000 | .23120 | 2569.81665 | 554.55941 | .99287 | .99549 | .99994 | .99292 | .99494 | .99540 | -.22818 |
| 24.000 | .24126 | 2571.05200 | 555.01620 | .98711 | .98270 | .99553 | .96941 | .98015 | .92398 | -.32421 |
| GRADIENT | .01148 | -.51705 | -.11892 | -.00035 | -.00011 | .00047 | -.00032 | .00024 | .00000 | .00374 |

(8E7-H01) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER - WING + RAKES

PARAMETRIC DATA

REFERENCE DATA

BETA = .000 SCFLAP = -7.170

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .700 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------------|--------|------------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| ALPHA | .000 | 2328.95743 | 650.04056 | 1.00001 | .99964 | 1.00001 | 1.00035 | 1.00033 | .99862 | -.20876 |
| | 4.000 | 2331.57224 | 650.71506 | .99964 | 1.00000 | 1.00071 | 1.00108 | 1.00105 | .99939 | -.18903 |
| | 8.000 | 2331.19591 | 650.63351 | 1.00069 | 1.00107 | 1.00108 | .99965 | .00107 | 1.00069 | -.19185 |
| | 12.000 | 22907.2330.18344 | 650.31766 | .99999 | 1.00076 | 1.00150 | 1.00093 | 1.00081 | .99943 | -.21842 |
| | 16.000 | 22873.2331.09445 | 650.60233 | 1.00116 | 1.00070 | .99955 | 1.00054 | .00053 | .99943 | -.24918 |
| | 20.000 | 22881.2329.96671 | 650.27924 | .99518 | .99662 | .99403 | .99519 | .99598 | .99509 | -.28703 |
| | 24.000 | 22904.2329.57666 | 650.17032 | .97319 | .96685 | .95167 | .97527 | .96680 | .96375 | -.31072 |
| GRADIENT | .00992 | .65370 | .16862 | -.00009 | .00009 | .00017 | .00018 | .00018 | .00009 | -.00493 |

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .800 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------------|--------|------------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| ALPHA | .000 | 2199.40393 | 756.56551 | 1.00057 | 1.00088 | 1.00000 | 1.00116 | 1.00001 | .99941 | -.20773 |
| | 4.000 | 20151.2196.76315 | 755.63815 | 1.00059 | 1.00058 | .99971 | 1.00058 | .99942 | .99942 | -.19084 |
| | 8.000 | 20953.2196.79587 | 755.61118 | .99941 | 1.00055 | 1.00141 | .00031 | .99955 | .99937 | -.20079 |
| | 12.000 | 20953.2195.25594 | 755.05513 | 1.00141 | 1.00095 | 1.00076 | .99993 | .00053 | .00059 | -.21632 |
| | 16.000 | 23428.2196.30389 | 755.45142 | .99948 | .99946 | .99903 | .99834 | .99923 | .99892 | -.24725 |
| | 20.000 | 24493.2194.02850 | 754.63434 | .99555 | .99702 | .99478 | .99613 | .99300 | .99897 | -.27652 |
| | 24.000 | 25439.2193.77629 | 754.47910 | .97541 | .97198 | .96914 | .97745 | .96542 | .96716 | -.31264 |
| GRADIENT | .00929 | -.66019 | -.23186 | .00000 | -.00008 | -.00007 | -.00015 | -.00015 | .00000 | .00422 |

RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .900 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------------|--------|------------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| ALPHA | .000 | 2109.62210 | 862.27768 | 1.00000 | 1.00050 | .99924 | .99976 | 1.00025 | .99950 | -.22171 |
| | 4.000 | 20991.2109.62210 | 862.29327 | .99954 | .99921 | 1.00025 | .99929 | .99970 | .99933 | -.23009 |
| | 8.000 | 20991.2109.62210 | 862.29327 | .00048 | .99997 | .99950 | .99999 | .99999 | .99999 | -.23009 |
| | 12.000 | 20991.2109.62210 | 862.29327 | 1.00031 | 1.00054 | 1.00121 | .99999 | .99999 | .99999 | -.23009 |
| | 16.000 | 20991.2109.62210 | 862.29327 | .99953 | .99912 | .99913 | .99999 | .99999 | .99999 | -.23009 |
| | 20.000 | 20991.2109.62210 | 862.29327 | .99946 | .99903 | .99528 | .99999 | .99999 | .99999 | -.23009 |
| | 24.000 | 20991.2109.62210 | 862.29327 | .97903 | .96949 | .97395 | .97395 | .97395 | .97395 | -.23009 |
| GRADIENT | .00951 | -.66019 | -.23186 | .00000 | -.00008 | -.00007 | -.00015 | -.00015 | .00000 | .00422 |

TABULATED DATA - 0A161 (ARC 11-97-87-09+)
ARC 11-97-87-09+ 0A161 ORBITER - WING + RAKES

PARAMETRIC DATA

BETA = .000 EDFLAP = -7.170

REFERENCE DATA

SPEF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LPEF = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RV/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .990 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| ALPHA | .16811 | 2077.71304 | 954.38324 | 1.00066 | 1.00045 | 1.00043 | 1.00087 | .99937 | 1.00001 | -29558 |
| .000 | .20583 | 2078.78214 | 954.80212 | .99933 | 1.00018 | .99978 | .99932 | .99891 | .99977 | -25831 |
| 4.000 | .21969 | 2078.09903 | 954.59937 | .99932 | .00108 | 1.00040 | .99932 | .99935 | 1.00020 | -27983 |
| 8.000 | .20767 | 2078.12507 | 954.67059 | 1.00026 | 1.00055 | 1.00077 | .99932 | .99932 | 1.00000 | -26927 |
| 12.000 | .22584 | 2078.14340 | 953.64047 | .99936 | .99920 | .99915 | .99932 | .99932 | .99932 | -29137 |
| 16.000 | .22760 | 2076.54349 | 953.82539 | .99990 | .99728 | .99594 | .99932 | .99932 | .99932 | -29593 |
| 20.000 | .22062 | 2075.84442 | 953.51797 | .99302 | .99799 | .97845 | .99483 | .99483 | .99932 | -29333 |
| 24.000 | .00943 | .26727 | .10347 | -.00033 | -.00007 | -.00016 | -.00032 | -.00012 | -.00006 | -00987 |

RV/L = 4.28 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.100 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|--------|------------|------------|---------|---------|---------|---------|--------|--------|--------|
| ALPHA | .15161 | 2035.51959 | 1080.47565 | .99919 | .99829 | .99922 | .99932 | .99932 | .99932 | -25547 |
| .000 | .19511 | 2030.54741 | 1077.28851 | 1.00100 | 1.00093 | 1.00063 | 1.00139 | .99932 | .99932 | -24564 |
| 4.000 | .22040 | 2035.05078 | 1080.33168 | .99985 | 1.00063 | 1.00116 | .99932 | .99932 | .99932 | -24563 |
| 8.000 | .21501 | 2032.16158 | 1078.78250 | 1.00091 | 1.00075 | 1.00061 | .99932 | .99932 | .99932 | -27354 |
| 12.000 | .22793 | 2033.13483 | 1078.78250 | .99955 | 1.00014 | 1.00010 | .99932 | .99932 | .99932 | -26457 |
| 16.000 | .23241 | 2033.65359 | 1079.04370 | .99583 | .99752 | .99528 | .99525 | .99790 | .99932 | -29421 |
| 20.000 | .22693 | 2029.55772 | 1076.85587 | .99548 | .98267 | .98178 | .99751 | .99932 | .99932 | -32475 |
| 24.000 | .01112 | -1.49304 | -.79676 | .00045 | .00050 | .00040 | .00035 | .00051 | .00050 | -00241 |

RV/L = 4.26 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.200 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|--------|------------|------------|---------|---------|---------|---------|---------|---------|--------|
| ALPHA | .16066 | 2007.39373 | 1165.13511 | 1.00091 | 1.00053 | .99923 | .99973 | 1.00011 | 1.00072 | -23752 |
| .000 | .19327 | 2005.49535 | 1154.67240 | 1.00161 | 1.00126 | 1.00023 | 1.00026 | 1.00125 | 1.00119 | -22447 |
| 4.000 | .20479 | 2007.09991 | 1164.92855 | 1.00179 | 1.00127 | 1.00028 | 1.00025 | 1.00119 | 1.00119 | -22929 |
| 8.000 | .19258 | 2008.10985 | 1165.56649 | 1.00164 | 1.00093 | .99998 | .99922 | .99932 | .99932 | -23180 |
| 12.000 | .21954 | 2007.54323 | 1165.20180 | 1.00143 | 1.00075 | .99959 | .99932 | .99932 | .99932 | -22577 |
| 16.000 | .22444 | 2007.91760 | 1164.87754 | .99649 | .99737 | .99583 | .99593 | .99932 | .99932 | -29140 |
| 20.000 | .22139 | 2007.67075 | 1165.32823 | .99488 | .98932 | .98490 | .99525 | .99932 | .99932 | -30241 |
| 24.000 | .00818 | -.22209 | -.11417 | .00017 | .00018 | .00025 | .00006 | .00029 | .00026 | -00329 |

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TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER - WING + RAKES

(BE7H01) (02 AUG 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.8800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 BDFLAP = -7.170

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|--------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| 1.300 | .000 | .16370 | 2014.64940 | 1245.96738 | 1.00556 | 1.00407 | 1.00133 | .99860 | 1.00011 | 1.00391 | -.21460 |
| 4.000 | .000 | .20227 | 2014.64159 | 1245.95663 | 1.00511 | 1.00378 | 1.00168 | 1.00045 | .99737 | 1.00100 | -.20534 |
| 8.000 | .000 | .18366 | 2015.59572 | 1246.61623 | 1.00607 | 1.00326 | 1.00194 | 1.00082 | .99927 | 1.00166 | -.21143 |
| 12.000 | .000 | .21117 | 2015.31550 | 1246.37619 | 1.00508 | 1.00250 | 1.00090 | .99970 | .99839 | 1.00124 | -.23043 |
| 16.000 | .000 | .21111 | 2016.02429 | 1246.89757 | 1.00303 | 1.00164 | 1.00184 | .99521 | .99557 | .99895 | -.24723 |
| 20.000 | .000 | .22289 | 2016.37533 | 1247.14417 | .98910 | .98648 | .99786 | .99265 | .99363 | .99705 | -.25135 |
| 24.000 | .000 | .22255 | 2017.14304 | 1247.66907 | .98757 | .98769 | .98752 | .98591 | .98573 | .9919 | -.26776 |
| GRADIENT | | .00972 | -.00195 | -.00269 | -.00011 | -.00007 | .00009 | .00046 | -.00069 | -.00073 | .00232 |

RN/L = 4.22 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|--------|------------|------------|---------|---------|---------|--------|--------|---------|---------|
| 1.400 | .000 | .14537 | 2039.20335 | 1312.72670 | 1.00723 | .99997 | .99986 | .99501 | .99218 | 1.00128 | -.19235 |
| 4.000 | .000 | .21399 | 2039.44522 | 1313.43784 | 1.01047 | 1.00342 | 1.00413 | .99331 | .99414 | 1.00198 | -.18539 |
| 8.000 | .000 | .20984 | 2039.84558 | 1313.51151 | 1.01082 | 1.00587 | 1.00278 | .99473 | .99430 | 1.00152 | -.19059 |
| 12.000 | .000 | .22151 | 2040.45193 | 1313.83667 | 1.01005 | 1.00342 | .99957 | .99200 | .99603 | 1.00367 | -.20526 |
| 16.000 | .000 | .23287 | 2040.67920 | 1313.99930 | 1.00604 | .99947 | 1.00166 | .99337 | .99420 | 1.00106 | -.22905 |
| 20.000 | .000 | .21411 | 2041.14793 | 1314.11967 | .99850 | .99403 | .99088 | .98339 | .98144 | .99741 | -.23583 |
| 24.000 | .000 | .01415 | .00503 | .01913 | .98906 | .98619 | .98210 | .97421 | .98159 | .98939 | -.23977 |
| GRADIENT | | .01415 | .00503 | .01913 | .00091 | .00786 | .00107 | .00207 | .00049 | .00017 | -.00174 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

(BE7H03) (02 AUG 76)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|----------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| 1.200 | .000 | -5.00000 | 2009.91339 | 1166.56922 | .99928 | .99910 | .99751 | .99654 | .99560 | .99576 | .99752 |
| 2.000 | .000 | -5.00000 | 2009.58576 | 1166.22134 | 1.00232 | 1.00182 | 1.00012 | .99972 | .99928 | .99969 | .99908 |
| 4.000 | .000 | -5.00000 | 2012.39209 | 1167.40450 | 1.00361 | .00329 | 1.00149 | 1.00045 | 1.00088 | 1.00021 | 1.00337 |
| 6.000 | .000 | -5.00000 | 2007.33059 | 1165.43674 | 1.00277 | .00238 | 1.00134 | .99939 | .99974 | .99976 | .99435 |
| 8.000 | .000 | -5.00000 | 2005.18105 | 1165.08044 | 1.00083 | 1.00072 | .99873 | .99729 | .99646 | .99645 | .99542 |
| 10.000 | .000 | -5.00000 | 1999.63934 | 1163.13529 | .99934 | .99904 | .99722 | .99453 | .99212 | .99131 | .97548 |
| 12.000 | .000 | -5.00000 | 2001.46516 | 1163.65021 | .99965 | .99970 | .99912 | .99524 | .99169 | .99264 | .97548 |
| 14.000 | .000 | -5.00000 | 2001.00822 | 1163.50826 | .99309 | .99930 | .99727 | .99269 | .98924 | .99220 | .97548 |
| 16.000 | .000 | -5.00000 | 1999.43224 | 1163.33114 | .99971 | .99771 | .99634 | .98220 | .96381 | .96512 | .97548 |
| 18.000 | .000 | -5.00000 | 2003.13529 | 1164.23153 | .99768 | .99813 | .99682 | .99024 | .98486 | .98326 | .97548 |
| 20.000 | .000 | -5.00000 | 2000.66002 | 1163.47430 | .99535 | .99595 | .99372 | .98742 | .98207 | .99331 | .96726 |
| 22.000 | .000 | -5.00000 | 1995.12405 | 1162.11552 | .99144 | .99143 | .98899 | .97903 | .97522 | .97739 | .95030 |
| 24.000 | .000 | -5.00000 | 1995.54181 | 1161.77493 | .98714 | .98997 | .98464 | .97236 | .97061 | .97342 | .94750 |
| GRADIENT | | .00000 | .86957 | .20908 | .00108 | .00105 | .00099 | .00095 | .00132 | .00111 | .00396 |

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------|-------|----------|------------|------------|---------|---------|---------|--------|--------|--------|--------|
| 1.550 | .000 | -5.00000 | 1578.31139 | 1042.32884 | 1.03805 | 1.02899 | 1.01120 | .95476 | .96496 | .97542 | .15556 |
| 2.000 | .000 | -5.00000 | 1577.32025 | 1041.71757 | 1.03691 | 1.02632 | 1.01481 | .95553 | .96545 | .97610 | .15580 |
| 4.000 | .000 | -5.00000 | 1577.34309 | 1041.73790 | 1.04254 | 1.03344 | 1.02036 | .95937 | .96903 | .97927 | .15717 |
| 6.000 | .000 | -5.00000 | 1578.33284 | 1042.35515 | 1.04416 | 1.03703 | 1.02401 | .95214 | .96534 | .97675 | .15518 |
| 8.000 | .000 | -5.00000 | 1575.77389 | 1040.70128 | 1.04702 | 1.03968 | 1.02401 | .95010 | .96836 | .98166 | .15990 |
| 10.000 | .000 | -5.00000 | 1575.64364 | 1040.63941 | 1.04425 | 1.03828 | 1.02472 | .95399 | .97288 | .98743 | .16697 |
| 12.000 | .000 | -5.00000 | 1575.93380 | 1040.83922 | 1.04389 | 1.03733 | 1.02508 | .95998 | .97104 | .98166 | .16697 |
| 14.000 | .000 | -5.00000 | 1575.94449 | 1040.85405 | 1.04232 | 1.03717 | 1.02461 | .96499 | .97104 | .98166 | .16697 |
| 16.000 | .000 | -5.00000 | 1576.27509 | 1041.04663 | 1.03938 | 1.03497 | 1.02438 | .94825 | .96208 | .97349 | .17238 |
| 18.000 | .000 | -5.00000 | 1575.81670 | 1040.74942 | 1.03507 | 1.03043 | 1.01937 | .93937 | .95566 | .96877 | .17344 |
| 20.000 | .000 | -5.00000 | 1575.60844 | 1040.75685 | 1.02821 | 1.02375 | 1.01533 | .92844 | .94700 | .96001 | .17696 |
| 22.000 | .000 | -5.00000 | 1575.42549 | 1041.17079 | 1.02223 | 1.01749 | 1.01387 | .91775 | .93531 | .94972 | .18493 |
| 24.000 | .000 | -5.00000 | 1575.24779 | 1041.15279 | .00052 | .00011 | .00194 | .00118 | .00102 | .00095 | .00396 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

(BE7H03) (02 AUG 75)

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

MACH = 1.750 RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | QCOMP | PT11/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|----------|------------|------------|---------|---------|---------|--------|--------|--------|---------|
| .000 | -5.00000 | 1849.42418 | 1066.72121 | 1.05937 | 1.05441 | 1.02115 | .92077 | .94375 | .96864 | -.13650 |
| 2.000 | -5.00000 | 1850.93597 | 1067.72229 | 1.07263 | 1.05416 | 1.01816 | .92693 | .94964 | .97172 | -.13537 |
| 4.000 | -5.00000 | 1852.24394 | 1067.25003 | 1.07499 | 1.05730 | 1.02293 | .93123 | .95354 | .97585 | -.13606 |
| 6.000 | -5.00000 | 1849.94432 | 1067.69263 | 1.07483 | 1.06111 | 1.02912 | .93701 | .95696 | .97953 | -.13628 |
| 8.000 | -5.00000 | 1850.82304 | 1067.65071 | 1.07745 | 1.06707 | 1.03892 | .92926 | .95821 | .98235 | -.13777 |
| 10.000 | -5.00000 | 1850.44762 | 1067.39171 | 1.07914 | 1.07005 | 1.04424 | .93120 | .96220 | .98236 | -.13777 |
| 12.000 | -5.00000 | 1851.41377 | 1068.03642 | 1.07826 | 1.06897 | 1.04671 | .94305 | .96503 | .98269 | -.13359 |
| 14.000 | -5.00000 | 1851.02856 | 1067.76807 | 1.07792 | 1.06932 | 1.04883 | .94295 | .96243 | .98179 | -.14271 |
| 16.000 | -5.00000 | 1850.14075 | 1067.19304 | 1.07687 | 1.06847 | 1.05021 | .93370 | .96027 | .97909 | -.14548 |
| 18.000 | -5.00000 | 1850.84254 | 1067.65240 | 1.07402 | 1.06500 | 1.04956 | .92332 | .95074 | .96990 | -.14420 |
| 20.000 | -5.00000 | 1851.38724 | 1068.00276 | 1.07230 | 1.06305 | 1.04623 | .91412 | .94237 | .95172 | -.14714 |
| 22.000 | -5.00000 | 1851.57825 | 1068.12389 | 1.06951 | 1.05920 | 1.03861 | .90806 | .93456 | .94459 | -.15281 |
| 24.000 | -5.00000 | 1851.58163 | 1068.12617 | 1.05244 | 1.05261 | 1.02916 | .89969 | .92379 | .93365 | -.15562 |
| GRADIENT | .00000 | .20419 | .13221 | .00140 | .00072 | .00045 | .00261 | .00245 | .00189 | .00011 |

MACH = 2.000 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | QCOMP | PT11/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|----------|------------|------------|---------|---------|---------|--------|--------|--------|---------|
| .000 | -5.00000 | 1847.06216 | 1095.04305 | 1.11696 | 1.09140 | 1.03503 | .88844 | .93302 | .97152 | -.10561 |
| 2.000 | -5.00000 | 1848.00623 | 1095.63314 | 1.12003 | 1.09310 | 1.02553 | .88784 | .93989 | .97709 | -.10829 |
| 4.000 | -5.00000 | 1847.42177 | 1095.27618 | 1.12101 | 1.09636 | 1.02909 | .90396 | .94772 | .98345 | -.10939 |
| 6.000 | -5.00000 | 1846.95721 | 1094.97044 | 1.12231 | 1.10428 | 1.05604 | .91225 | .95337 | .98585 | -.10792 |
| 8.000 | -5.00000 | 1846.99305 | 1094.67595 | 1.12428 | 1.10681 | 1.06366 | .91402 | .95774 | .98197 | -.10979 |
| 10.000 | -5.00000 | 1846.49546 | 1094.67595 | 1.12395 | 1.10754 | 1.06958 | .91476 | .96292 | .98179 | -.11185 |
| 12.000 | -5.00000 | 1846.51515 | 1094.69148 | 1.12655 | 1.11130 | 1.07705 | .92383 | .96293 | .98336 | -.11515 |
| 14.000 | -5.00000 | 1846.62762 | 1094.75682 | 1.12678 | 1.10926 | 1.08277 | .92657 | .96129 | .98049 | -.11672 |
| 16.000 | -5.00000 | 1846.02921 | 1094.35095 | 1.12316 | 1.10650 | 1.08017 | .91643 | .95768 | .97396 | -.11196 |
| 18.000 | -5.00000 | 1846.35056 | 1094.59261 | 1.11583 | 1.10109 | 1.07906 | .90699 | .94505 | .97639 | -.11537 |
| 20.000 | -5.00000 | 1846.85518 | 1094.89108 | 1.11345 | 1.09813 | 1.07556 | .90104 | .94096 | .96939 | -.12070 |
| 22.000 | -5.00000 | 1847.20576 | 1095.09203 | 1.11251 | 1.09560 | 1.06918 | .89164 | .93112 | .95929 | -.12344 |
| 24.000 | -5.00000 | 1846.00110 | 1094.37541 | 1.10711 | 1.09042 | 1.05678 | .88835 | .92484 | .95263 | -.12599 |
| GRADIENT | .00000 | .08990 | .05629 | .00101 | .00124 | -.00118 | .00388 | .00368 | .00298 | -.00069 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

(BE7H03) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -5.000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RNVL = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|----------|------------|------------|---------|---------|---------|--------|--------|---------|---------|
| ALPHA .000 | -5.00000 | 2051.52133 | 1064.93391 | 1.16130 | 1.12496 | 1.03802 | .85580 | .92459 | .97817 | -.08702 |
| 2.000 | -5.00000 | 2050.73444 | 1064.52908 | 1.16488 | 1.12923 | 1.03714 | .85203 | .93061 | .98435 | -.08831 |
| 4.000 | -5.00000 | 2050.90634 | 1064.61781 | 1.16494 | 1.13300 | 1.04502 | .87097 | .93601 | .98793 | -.08123 |
| 6.000 | -5.00000 | 2050.73029 | 1064.52737 | 1.17052 | 1.14499 | 1.07326 | .88115 | .94042 | .99018 | -.09238 |
| 8.000 | -5.00000 | 2051.17938 | 1064.75842 | 1.17448 | 1.14838 | 1.08687 | .88876 | .94627 | .99273 | -.09224 |
| 10.000 | -5.00000 | 2051.78479 | 1055.05981 | 1.17237 | 1.14824 | 1.09091 | .89699 | .95345 | .99959 | -.09591 |
| 12.000 | -5.00000 | 2052.43539 | 1055.40637 | 1.17091 | 1.14339 | 1.08531 | .90475 | .95646 | 1.00098 | -.10002 |
| 14.000 | -5.00000 | 2054.13220 | 1056.25032 | 1.16677 | 1.14386 | 1.10320 | .90734 | .95824 | .99773 | -.09915 |
| 16.000 | -5.00000 | 2055.24664 | 1056.85034 | 1.16793 | 1.14304 | 1.09958 | .90168 | .95502 | .99700 | -.10333 |
| 18.000 | -5.00000 | 2055.90338 | 1067.19557 | 1.16428 | 1.13694 | 1.10012 | .89990 | .94711 | .98729 | -.10180 |
| 20.000 | -5.00000 | 2055.49188 | 1055.98186 | 1.15917 | 1.13233 | 1.09913 | .88772 | .93843 | .97793 | -.10341 |
| 22.000 | -5.00000 | 2055.36655 | 1066.91809 | 1.15428 | 1.12614 | 1.08947 | .87644 | .92965 | .96848 | -.10569 |
| 24.000 | -5.00000 | 2056.58188 | 1067.54214 | 1.14815 | 1.12074 | 1.07331 | .86217 | .91477 | .95429 | -.10653 |
| GRADIENT | .00000 | -.15373 | -.07902 | .00091 | .00201 | .00175 | .00379 | .00286 | .00244 | -.00105 |

RNVL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|----------|------------|-----------|---------|---------|---------|--------|--------|--------|---------|
| ALPHA .000 | -5.00000 | 1498.55390 | 659.62552 | 1.24437 | 1.21318 | 1.10132 | .79587 | .87853 | .94450 | -.07792 |
| 2.000 | -5.00000 | 1497.87276 | 659.31431 | 1.24410 | 1.21555 | 1.10569 | .80415 | .88753 | .95712 | -.07926 |
| 4.000 | -5.00000 | 1497.09436 | 658.97150 | 1.24705 | 1.22039 | 1.11979 | .81692 | .89948 | .96625 | -.08035 |
| 6.000 | -5.00000 | 1497.75047 | 659.26024 | 1.25003 | 1.22750 | 1.13523 | .83004 | .90945 | .97420 | -.08082 |
| 8.000 | -5.00000 | 1497.84230 | 659.30032 | 1.24767 | 1.22531 | 1.14278 | .84449 | .92043 | .97882 | -.08170 |
| 10.000 | -5.00000 | 1497.81511 | 659.28880 | 1.24953 | 1.22449 | 1.14566 | .85580 | .92749 | .98350 | -.08493 |
| 12.000 | -5.00000 | 1497.81754 | 659.28955 | 1.24365 | 1.22045 | 1.15554 | .85267 | .92774 | .98555 | -.08673 |
| 14.000 | -5.00000 | 1497.78599 | 659.27169 | 1.24910 | 1.21622 | 1.16138 | .85594 | .93498 | .98503 | -.08770 |
| 16.000 | -5.00000 | 1497.77367 | 659.26360 | 1.24591 | 1.21152 | 1.15997 | .85592 | .93542 | .98339 | -.08700 |
| 18.000 | -5.00000 | 1497.79367 | 659.26370 | 1.24047 | 1.20489 | 1.15639 | .85033 | .92542 | .97575 | -.09004 |
| 20.000 | -5.00000 | 1497.81293 | 659.27309 | 1.23758 | 1.20003 | 1.15179 | .85173 | .91571 | .96365 | -.09094 |
| 22.000 | -5.00000 | 1497.81293 | 659.28218 | 1.22747 | 1.19102 | 1.14312 | .83994 | .90300 | .95148 | -.09201 |
| 24.000 | -5.00000 | 1497.82393 | 659.28389 | 1.21805 | 1.18384 | 1.13795 | .82420 | .89469 | .93399 | -.09145 |
| GRADIENT | .00000 | -.36733 | -.16350 | .00067 | .00180 | .00462 | .00524 | .00524 | .00544 | -.00061 |

TABULATED DATA - OA161 (ARC 11-97-87-09A)
ARC 11-97-87-09A OA161 ORBITER + RAKES

(BE7H03) (02 AUG 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
A1LRON = .000 EDFLAP = -7.178

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | QCOMP | PT1/QC | PT2/QC | PT3/QC | PT4/QC | PT5/QC | PT6/QC | PT7/QC |
|--------------|----------|----------|------------|-----------|---------|---------|---------|--------|--------|--------|---------|
| | .000 | -5.00000 | 1935.56339 | 565.22348 | 1.36869 | 1.33103 | 1.14859 | .71902 | .83745 | .93582 | -.05595 |
| | 2.000 | -5.00000 | 1935.15036 | 565.12438 | 1.37067 | 1.33510 | 1.16292 | .72737 | .84542 | .94664 | -.05821 |
| | 4.000 | -5.00000 | 1936.07675 | 565.35988 | 1.37478 | 1.34145 | 1.18607 | .74447 | .86266 | .95921 | -.05857 |
| | 6.000 | -5.00000 | 1936.50793 | 565.48977 | 1.37291 | 1.34020 | 1.19842 | .75998 | .87469 | .96983 | -.06007 |
| | 8.000 | -5.00000 | 1936.47981 | 565.47600 | 1.37620 | 1.34080 | 1.21911 | .78070 | .88913 | .97501 | -.06039 |
| | 10.000 | -5.00000 | 1936.30577 | 565.45056 | 1.37734 | 1.33500 | 1.22007 | .79782 | .90277 | .98379 | -.06203 |
| | 12.000 | -5.00000 | 1936.01462 | 565.34191 | 1.38116 | 1.32981 | 1.22750 | .80759 | .90918 | .98723 | -.06250 |
| | 14.000 | -5.00000 | 1935.75789 | 565.18574 | 1.38373 | 1.32626 | 1.23604 | .81397 | .91180 | .98930 | -.06194 |
| | 16.000 | -5.00000 | 1935.54929 | 565.01133 | 1.38214 | 1.31893 | 1.23448 | .81986 | .91500 | .99059 | -.06201 |
| | 18.000 | -5.00000 | 1935.29300 | 564.96677 | 1.37792 | 1.31003 | 1.22553 | .81752 | .91231 | .98437 | -.06388 |
| | 20.000 | -5.00000 | 1934.35158 | 564.76923 | 1.37229 | 1.30423 | 1.21849 | .80896 | .90157 | .97325 | -.06473 |
| | 22.000 | -5.00000 | 1934.81850 | 564.94459 | 1.36148 | 1.29535 | 1.20735 | .79742 | .88617 | .95682 | -.06544 |
| | 24.000 | -5.00000 | 1934.05580 | 564.63592 | 1.34549 | 1.28318 | 1.19861 | .78238 | .86583 | .93459 | -.06539 |
| | GRADIENT | .00000 | .12834 | .03410 | .00152 | .00260 | .00917 | .00636 | .00630 | .07585 | -.00056 |

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | QCOMP | PT1/QC | PT2/QC | PT3/QC | PT4/QC | PT5/QC | PT6/QC | PT7/QC |
|--------------|----------|----------|------------|-----------|---------|---------|---------|--------|--------|--------|---------|
| | .000 | -5.00000 | 2547.37308 | 508.60840 | 1.42084 | 1.37148 | 1.13554 | .65893 | .79633 | .91556 | -.03910 |
| | 2.000 | -5.00000 | 2547.81790 | 508.70000 | 1.42764 | 1.37868 | 1.15769 | .66910 | .80999 | .93068 | -.03936 |
| | 4.000 | -5.00000 | 2546.94196 | 508.53317 | 1.43507 | 1.38532 | 1.18612 | .68418 | .82589 | .94484 | -.04123 |
| | 6.000 | -5.00000 | 2547.50006 | 509.64510 | 1.43806 | 1.38998 | 1.20625 | .70256 | .84094 | .95384 | -.04200 |
| | 8.000 | -5.00000 | 2547.17203 | 509.59098 | 1.43911 | 1.38084 | 1.22252 | .72911 | .86025 | .96420 | -.04309 |
| | 10.000 | -5.00000 | 2551.36157 | 509.40276 | 1.44512 | 1.37551 | 1.24228 | .74568 | .87104 | .97316 | -.04345 |
| | 12.000 | -5.00000 | 2555.54724 | 510.24735 | 1.44793 | 1.37206 | 1.24228 | .75945 | .87971 | .97813 | -.04320 |
| | 14.000 | -5.00000 | 2558.82321 | 510.89791 | 1.45026 | 1.36473 | 1.25021 | .77171 | .88892 | .98439 | -.04408 |
| | 16.000 | -5.00000 | 2563.66443 | 511.67092 | 1.44596 | 1.35302 | 1.23939 | .77608 | .89376 | .98755 | -.04357 |
| | 18.000 | -5.00000 | 2567.11115 | 512.67409 | 1.44007 | 1.34399 | 1.22862 | .77620 | .89075 | .98235 | -.04451 |
| | 20.000 | -5.00000 | 2572.38071 | 513.61562 | 1.42840 | 1.33605 | 1.21618 | .77277 | .88245 | .97148 | -.04403 |
| | 22.000 | -5.00000 | 2578.11011 | 514.75153 | 1.40871 | 1.31977 | 1.20210 | .75908 | .86753 | .95265 | -.04397 |
| | 24.000 | -5.00000 | 2578.93777 | 514.92529 | 1.38535 | 1.30009 | 1.18542 | .74124 | .84300 | .92653 | -.04512 |
| | GRADIENT | .00000 | -.10779 | -.01880 | .00356 | .00346 | .01265 | .00631 | .00739 | .00732 | -.00053 |

TABULATED DATA - OAI61 (ARC 11-97-87-094)
 ARC 11-97-87-094 OAI61 ORBITER + RAKES

(BE7H04) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SPEF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RV/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.550 | BETA | PT | QCOMP | PT1/QC | PT2/QC | PT3/QC | PT4/QC | PT5/QC | PT6/QC | PT7/QC |
|--------------|----------|------------|------------|---------|---------|---------|--------|--------|---------|---------|
| ALPHA | | | | | | | | | | |
| .000 | -2.00000 | 1574.43616 | 1039.23260 | 1.02345 | 1.01483 | .99860 | .97172 | -98286 | .98427 | -14018 |
| 2.000 | -2.00000 | 1573.92516 | 1038.90645 | 1.02517 | 1.01273 | 1.00272 | .97508 | -98579 | .99701 | -14113 |
| 4.000 | -2.00000 | 1573.05987 | 1039.33949 | 1.02822 | 1.01659 | 1.00676 | .98044 | -99147 | 1.00043 | -14284 |
| 6.000 | -2.00000 | 1573.57761 | 1038.68646 | 1.03016 | 1.02011 | 1.00864 | .98256 | -99300 | 1.00243 | -14413 |
| 8.000 | -2.00000 | 1574.31930 | 1039.19500 | 1.03483 | 1.02487 | 1.01051 | .98623 | -99354 | 1.00250 | -14735 |
| 10.000 | -2.00000 | 1574.64066 | 1039.37476 | 1.03586 | 1.02674 | 1.01377 | .98709 | -99176 | 1.00343 | -15225 |
| 12.000 | -2.00000 | 1574.84332 | 1039.51079 | 1.03249 | 1.02652 | 1.01321 | .97673 | -99019 | 1.00247 | -15691 |
| 14.000 | -2.00000 | 1574.59084 | 1039.34938 | 1.03094 | 1.02537 | 1.01400 | .98672 | -99347 | 1.00277 | -16048 |
| 16.000 | -2.00000 | 1575.31698 | 1039.83284 | 1.02784 | 1.02376 | 1.01263 | .98135 | -98864 | .99864 | -16296 |
| 18.000 | -2.00000 | 1575.34929 | 1039.84596 | 1.02424 | 1.01902 | 1.00774 | .97290 | -98557 | .99542 | -16391 |
| 20.000 | -2.00000 | 1574.16409 | 1039.06374 | 1.02074 | 1.01437 | 1.00079 | .96568 | -98071 | .99241 | -16502 |
| 22.000 | -2.00000 | 1574.15891 | 1039.96938 | 1.01482 | 1.00868 | 1.00079 | .95706 | -97418 | .98604 | -17025 |
| 24.000 | -2.00000 | 1574.84604 | 1039.52930 | 1.00842 | 1.00253 | .99468 | .95098 | -96756 | .97853 | -17949 |
| GRADIENT | .00000 | -.34433 | -.22328 | .00119 | .00044 | .00204 | .00218 | .00215 | .00154 | -.00067 |

RV/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | BETA | PT | QCOMP | PT1/QC | PT2/QC | PT3/QC | PT4/QC | PT5/QC | PT6/QC | PT7/QC |
|--------------|----------|------------|------------|---------|---------|---------|--------|---------|---------|---------|
| ALPHA | | | | | | | | | | |
| .000 | -2.00000 | 1650.91153 | 1067.69946 | 1.05025 | 1.03341 | .99900 | .96120 | -98536 | 1.00815 | -12801 |
| 2.000 | -2.00000 | 1652.84775 | 1068.96416 | 1.05402 | 1.03228 | .99415 | .96578 | -98987 | 1.01170 | -12818 |
| 4.000 | -2.00000 | 1653.85585 | 1069.60932 | 1.05455 | 1.03599 | .99711 | .96934 | -99146 | 1.01380 | -12878 |
| 6.000 | -2.00000 | 1654.30829 | 1069.92824 | 1.05762 | 1.04466 | 1.01171 | .97365 | -99436 | 1.01539 | -12938 |
| 8.000 | -2.00000 | 1653.79941 | 1069.57295 | 1.06031 | 1.04730 | 1.01806 | .97762 | -99775 | 1.01741 | -13161 |
| 10.000 | -2.00000 | 1654.31114 | 1069.92749 | 1.06043 | 1.04947 | 1.03376 | .97267 | -99997 | 1.02100 | -13562 |
| 12.000 | -2.00000 | 1655.30827 | 1070.56705 | 1.05995 | 1.04974 | 1.02839 | .97131 | 1.00012 | 1.02049 | -13808 |
| 14.000 | -2.00000 | 1655.65330 | 1070.78859 | 1.05692 | 1.04820 | 1.02802 | .98539 | 1.00197 | 1.01876 | -14053 |
| 16.000 | -2.00000 | 1654.93355 | 1070.32930 | 1.05510 | 1.04653 | 1.03016 | .98307 | .99942 | 1.01711 | -14265 |
| 18.000 | -2.00000 | 1655.58514 | 1070.76898 | 1.05248 | 1.04341 | 1.02638 | .98377 | .99486 | 1.01163 | -14314 |
| 20.000 | -2.00000 | 1657.05319 | 1071.71434 | 1.04824 | 1.03704 | 1.01612 | .96352 | .98979 | 1.00716 | -14503 |
| 22.000 | -2.00000 | 1657.68335 | 1072.11337 | 1.04238 | 1.03152 | 1.00755 | .95952 | .98397 | 1.00259 | -15130 |
| 24.000 | -2.00000 | 1657.51353 | 1072.00942 | 1.03644 | 1.02670 | 1.00128 | .95413 | .97732 | .99572 | -15900 |
| GRADIENT | .00000 | .73508 | .47761 | .00107 | .00065 | -.00047 | .00203 | .00152 | .00141 | -.00019 |

ARC 11-97-87-094 OAI61 ORBITER + RAKES

REFERENCE DATA

MACH = 2.000
 ALPHA = .000
 SREF = 2690.0000 SO.FT.
 LREF = 474.8000 IN.
 BREF = 936.6800 IN.
 SCALE = .0300
 XMRP = 1076.6800 IN. XO
 YMRP = .0000 IN. YO
 ZMRP = 375.0000 IN. ZO
 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

| MACH | ALPHA | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------|-------|----------|------------|------------|---------|---------|---------|--------|---------|---------|---------|
| 2.000 | .000 | -2.00000 | 1845.93443 | 1094.69649 | 1.08140 | 1.05073 | .99476 | .93978 | .98496 | 1.02441 | -.10538 |
| 2.000 | .000 | -2.00000 | 1846.41615 | 1094.37723 | 1.08691 | 1.05806 | .99574 | .94560 | .99143 | 1.02869 | -.10589 |
| 2.000 | .000 | -2.00000 | 1846.47342 | 1094.41763 | 1.08893 | 1.06246 | .99984 | .95153 | .99442 | 1.03301 | -.0530 |
| 2.000 | .000 | -2.00000 | 1847.01998 | 1094.75133 | 1.09127 | 1.06533 | 1.01382 | .95955 | 1.00303 | 1.03765 | -.10516 |
| 2.000 | .000 | -2.00000 | 1846.99838 | 1094.73875 | 1.08960 | 1.06403 | 1.02202 | .96562 | 1.00650 | 1.03851 | -.10799 |
| 2.000 | .000 | -2.00000 | 1846.95039 | 1094.73189 | 1.08873 | 1.06738 | 1.02979 | .96844 | 1.01050 | 1.04127 | -.11109 |
| 2.000 | .000 | -2.00000 | 1846.84956 | 1094.53534 | 1.09124 | 1.07259 | 1.03725 | .96526 | 1.01123 | 1.04127 | -.11358 |
| 2.000 | .000 | -2.00000 | 1846.59160 | 1094.49269 | 1.09158 | 1.07304 | 1.04283 | .97443 | 1.00907 | 1.03774 | -.11554 |
| 2.000 | .000 | -2.00000 | 1847.17949 | 1094.87161 | 1.08665 | 1.07102 | 1.04475 | .97132 | 1.00305 | 1.03076 | -.11814 |
| 2.000 | .000 | -2.00000 | 1846.81461 | 1094.66362 | 1.08217 | 1.06576 | 1.04231 | .96233 | 1.00016 | 1.02545 | -.11719 |
| 2.000 | .000 | -2.00000 | 1846.61461 | 1094.62637 | 1.07932 | 1.06125 | 1.02750 | .95571 | .99602 | 1.02240 | -.11975 |
| 2.000 | .000 | -2.00000 | 1847.35541 | 1094.95123 | 1.07119 | 1.05129 | 1.01319 | .95027 | .98773 | 1.01534 | -.12258 |
| 2.000 | .000 | -2.00000 | 1846.02236 | 1094.15599 | 1.06330 | 1.04485 | 1.00364 | .94694 | .98386 | 1.00966 | -.12581 |
| 2.000 | .000 | -2.00000 | 1846.11399 | 1094.06971 | 1.00188 | 1.00293 | 1.00127 | .00294 | .00237 | -.00215 | -.00002 |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------|-------|----------|------------|------------|---------|---------|---------|--------|---------|---------|---------|
| 2.250 | .000 | -2.00000 | 2069.32037 | 1069.48225 | 1.10848 | 1.06301 | .97368 | .91560 | .99058 | 1.04379 | -.08910 |
| 2.000 | .000 | -2.00000 | 2059.98480 | 1069.31013 | 1.11459 | 1.07099 | .98542 | .91929 | .99439 | 1.04878 | -.08995 |
| 2.000 | .000 | -2.00000 | 2059.56003 | 1069.09161 | 1.11716 | 1.07663 | .99426 | .92405 | .99294 | 1.04798 | -.08915 |
| 2.000 | .000 | -2.00000 | 2060.01712 | 1069.32610 | 1.12273 | 1.08228 | 1.00899 | .93395 | .99933 | 1.05038 | -.09032 |
| 2.000 | .000 | -2.00000 | 2060.34888 | 1069.49667 | 1.12552 | 1.08776 | 1.01945 | .94236 | 1.00690 | 1.05322 | -.09149 |
| 2.000 | .000 | -2.00000 | 2060.24548 | 1069.44347 | 1.12574 | 1.09053 | 1.02655 | .95560 | 1.01489 | 1.06145 | -.09426 |
| 2.000 | .000 | -2.00000 | 2060.47052 | 1069.44377 | 1.12191 | 1.09163 | 1.03644 | .95024 | 1.01593 | 1.05896 | -.09550 |
| 2.000 | .000 | -2.00000 | 2060.56143 | 1069.56143 | 1.11945 | 1.09079 | 1.04324 | .96636 | 1.01878 | 1.05791 | -.09748 |
| 2.000 | .000 | -2.00000 | 2060.55393 | 1069.60732 | 1.11701 | 1.08976 | 1.04682 | .96706 | 1.01774 | 1.05576 | -.09931 |
| 2.000 | .000 | -2.00000 | 2060.33616 | 1069.33524 | 1.11015 | 1.08397 | 1.04479 | .96193 | 1.01388 | 1.05046 | -.10152 |
| 2.000 | .000 | -2.00000 | 2060.44046 | 1069.54353 | 1.10377 | 1.07799 | 1.03402 | .95329 | 1.00625 | 1.04158 | -.10232 |
| 2.000 | .000 | -2.00000 | 2060.15353 | 1069.39586 | 1.09598 | 1.06933 | 1.01677 | .94511 | .99553 | 1.03227 | -.10490 |
| 2.000 | .000 | -2.00000 | 2060.04486 | 1069.34026 | 1.09709 | 1.06901 | 1.00246 | .93531 | .98483 | 1.02397 | -.10642 |
| 2.000 | .000 | -2.00000 | 2060.19008 | 1069.09767 | 1.00217 | 1.00340 | .00544 | .00211 | .00059 | -.00105 | -.00201 |

TABLATED DATA - 0A161 (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 ORBITER + RAKES

(BE7H04) (02 AUG 76)
 PARAMETRIC DATA

REFERENCE DATA

SPEE = 2590.000 SQ.FT. XMRP = 1076.6800 IN. XO
 LPEE = 474.8000 IN. YMRP = .0000 IN. YO
 BPEE = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = -2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|--------|----------|------------|-----------|---------|---------|---------|--------|---------|---------|---------|
| 2.500 | .000 | -2.00000 | 1497.77222 | 659.27209 | 1.17890 | 1.12598 | 1.00482 | .87096 | .96747 | 1.03741 | -.07602 |
| 2.000 | 2.000 | -2.00000 | 1497.76450 | 659.26828 | 1.18394 | 1.13247 | 1.01502 | .87504 | .97572 | 1.04377 | -.07581 |
| 4.000 | 4.000 | -2.00000 | 1497.76714 | 659.27001 | 1.18938 | 1.14013 | 1.03016 | .89012 | .98279 | 1.05405 | -.07691 |
| 6.000 | 6.000 | -2.00000 | 1497.74226 | 659.26281 | 1.19300 | 1.14818 | 1.04829 | .90179 | .99269 | 1.05979 | -.07800 |
| 8.000 | 8.000 | -2.00000 | 1497.75372 | 659.26557 | 1.19327 | 1.15180 | 1.05716 | .91600 | 1.00057 | 1.06199 | -.07850 |
| 10.000 | 10.000 | -2.00000 | 1497.67010 | 659.22676 | 1.19503 | 1.15556 | 1.06643 | .92637 | 1.00496 | 1.06546 | -.08182 |
| 12.000 | 12.000 | -2.00000 | 1498.01534 | 659.37941 | 1.19287 | 1.15745 | 1.08216 | .93335 | 1.01012 | 1.06927 | -.08552 |
| 14.000 | 14.000 | -2.00000 | 1494.69432 | 657.83693 | 1.18736 | 1.15315 | 1.09375 | .94074 | 1.01339 | 1.07590 | -.08677 |
| 16.000 | 16.000 | -2.00000 | 1494.60835 | 657.86705 | 1.17815 | 1.14568 | 1.08715 | .94597 | 1.01555 | 1.06661 | -.08677 |
| 18.000 | 18.000 | -2.00000 | 1495.38378 | 658.07857 | 1.16899 | 1.13630 | 1.08116 | .94370 | 1.01049 | 1.05871 | -.08980 |
| 20.000 | 20.000 | -2.00000 | 1494.25939 | 657.70778 | 1.16077 | 1.12774 | 1.07542 | .93871 | 1.00308 | 1.04928 | -.09002 |
| 22.000 | 22.000 | -2.00000 | 1494.70457 | 657.90915 | 1.15102 | 1.11821 | 1.07012 | .93035 | .99122 | 1.03772 | -.09002 |
| 24.000 | 24.000 | -2.00000 | 1494.34450 | 658.01747 | 1.13968 | 1.10888 | 1.05846 | .92003 | .97737 | 1.02567 | -.08938 |
| GRADIENT | .00000 | .00000 | -.00127 | -.00052 | .00262 | .00354 | .00513 | .00479 | .00363 | .00416 | -.00072 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|--------|----------|------------|-----------|---------|---------|---------|--------|---------|---------|---------|
| 3.000 | .000 | -2.00000 | 1942.79845 | 567.38300 | 1.29850 | 1.21618 | 1.02213 | .82437 | .96618 | 1.07274 | -.05553 |
| 2.000 | 2.000 | -2.00000 | 1939.95528 | 566.57606 | 1.30334 | 1.22433 | 1.03895 | .83084 | .97339 | 1.08025 | -.05518 |
| 4.000 | 4.000 | -2.00000 | 1937.25540 | 565.72629 | 1.30653 | 1.23099 | 1.05397 | .84371 | .98393 | 1.08740 | -.05730 |
| 6.000 | 6.000 | -2.00000 | 1932.01018 | 564.33104 | 1.30751 | 1.23815 | 1.06991 | .86024 | .99703 | 1.09559 | -.05709 |
| 8.000 | 8.000 | -2.00000 | 1931.75623 | 564.24371 | 1.30803 | 1.24481 | 1.08750 | .88617 | 1.01282 | 1.10335 | -.05773 |
| 10.000 | 10.000 | -2.00000 | 1932.19310 | 564.34621 | 1.30667 | 1.24952 | 1.10593 | .89959 | 1.02041 | 1.11043 | -.06011 |
| 12.000 | 12.000 | -2.00000 | 1932.51719 | 564.41837 | 1.30419 | 1.25478 | 1.13139 | .91011 | 1.02397 | 1.11075 | -.06248 |
| 14.000 | 14.000 | -2.00000 | 1931.50789 | 563.96030 | 1.29526 | 1.24484 | 1.14194 | .92368 | 1.02655 | 1.11517 | -.06209 |
| 16.000 | 16.000 | -2.00000 | 1932.10713 | 564.17945 | 1.28353 | 1.23135 | 1.13905 | .93285 | 1.03392 | 1.11541 | -.06309 |
| 18.000 | 18.000 | -2.00000 | 1931.43526 | 564.00479 | 1.27208 | 1.21735 | 1.12999 | .93681 | 1.03681 | 1.10935 | -.06295 |
| 20.000 | 20.000 | -2.00000 | 1931.66759 | 564.08523 | 1.26037 | 1.20477 | 1.11927 | .93395 | 1.03030 | 1.10101 | -.06295 |
| 22.000 | 22.000 | -2.00000 | 1932.01346 | 564.17412 | 1.24541 | 1.18991 | 1.10932 | .92395 | 1.02555 | 1.09436 | -.06262 |
| 24.000 | 24.000 | -2.00000 | 1931.72012 | 564.10132 | 1.22658 | 1.17324 | 1.09707 | .90972 | .99709 | 1.08745 | -.06262 |
| GRADIENT | .00000 | .00000 | -1.38574 | -.39918 | .00201 | .00370 | .00795 | .00484 | .00444 | .00557 | -.00074 |

REFERENCE DATA

SPEF = 2593.0000 SQ.FT. XMRP = 1076.6800 IN. YO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
 A:LRON = .000 BDFLAP = -7.170

PN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|--------|----------|------------|-----------|---------|---------|---------|--------|---------|---------|---------|
| | .000 | -2.00000 | 2608.07135 | 520.74471 | 1.33727 | 1.22812 | .97867 | .75147 | .93692 | 1.06952 | -.03824 |
| | 2.000 | -2.00000 | 2609.47937 | 521.03742 | 1.34134 | 1.24252 | .99783 | .77220 | .94675 | 1.08284 | -.04019 |
| | 4.000 | -2.00000 | 2610.52899 | 521.24570 | 1.34418 | 1.25558 | 1.02663 | .79165 | .96414 | 1.09589 | -.04008 |
| | 6.000 | -2.00000 | 2614.11072 | 521.86236 | 1.34194 | 1.25969 | 1.06239 | .80900 | .97468 | 1.09955 | -.03967 |
| | 8.000 | -2.00000 | 2614.27722 | 521.95606 | 1.34062 | 1.26821 | 1.07608 | .83225 | .98129 | 1.10855 | -.04114 |
| | 10.000 | -2.00000 | 2619.19557 | 522.38805 | 1.33340 | 1.25834 | 1.09073 | .85579 | 1.00549 | 1.12054 | -.04314 |
| | 12.000 | -2.00000 | 2615.71823 | 522.27869 | 1.32284 | 1.27057 | 1.11828 | .87476 | 1.01704 | 1.12757 | -.04312 |
| | 14.000 | -2.00000 | 2617.89397 | 522.71407 | 1.32079 | 1.25569 | 1.12396 | .89053 | 1.02687 | 1.12997 | -.04354 |
| | 16.000 | -2.00000 | 2615.78174 | 522.26540 | 1.30598 | 1.23749 | 1.12022 | .90195 | 1.03531 | 1.13102 | -.04354 |
| | 18.000 | -2.00000 | 2617.10403 | 522.56139 | 1.29727 | 1.22341 | 1.11165 | .90549 | 1.03198 | 1.12373 | -.04266 |
| | 20.000 | -2.00000 | 2615.61575 | 522.25275 | 1.28222 | 1.20618 | 1.09759 | .90272 | 1.02451 | 1.11320 | -.04305 |
| | 22.000 | -2.00000 | 2619.48699 | 523.04321 | 1.26473 | 1.18966 | 1.08379 | .89139 | 1.00823 | 1.09622 | -.04359 |
| | 24.000 | -2.00000 | 2624.04565 | 523.94328 | 1.24149 | 1.16656 | 1.06745 | .87485 | .98492 | 1.07754 | -.04359 |
| | .00000 | .00000 | .61442 | .12524 | .00173 | .00652 | .01159 | .0073- | .00580 | .00659 | -.00021 |

GRADIENT

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .600 | PARAMETRIC DATA | | | | | | | | | | |
|----------|--------|-----------------|-----------|---------|---------|---------|---------|---------|---------|--------|----------|----------|
| ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC | ELEVON = | BDFLAP = |
| 2.000 | .00000 | 2635.13434 | 568.96451 | 1.00225 | 1.00272 | 1.00132 | .99902 | 1.00115 | 1.00015 | .43088 | .000 | .000 |
| 4.000 | .00000 | 2636.45282 | 569.02750 | 1.00164 | 1.00162 | 1.00140 | 1.00102 | .99996 | 1.00012 | .66148 | .000 | -7.170 |
| 6.000 | .00000 | 2638.36844 | 569.52808 | 1.00180 | 1.00215 | 1.00170 | 1.00290 | 1.00102 | .99959 | .80449 | .000 | |
| 8.000 | .00000 | 2635.83572 | 568.79059 | 1.00016 | 1.00093 | 1.00320 | 1.00198 | 1.00120 | 1.00000 | .89356 | .000 | |
| 10.000 | .00000 | 2636.20316 | 568.95142 | 1.00169 | 1.00053 | 1.00006 | .99967 | 1.00069 | 1.00097 | .93169 | .000 | |
| 12.000 | .00000 | 2635.93494 | 568.83055 | 1.00054 | 1.00194 | .99934 | .99912 | 1.00133 | 1.00009 | .95308 | .000 | |
| 14.000 | .00000 | 2635.46613 | 568.67661 | .99978 | .99941 | .99996 | .99923 | 1.00066 | .99771 | .97565 | .000 | |
| 16.000 | .00000 | 2636.11769 | 568.91691 | 1.00139 | 1.00002 | 1.00059 | .99977 | .99924 | .99775 | .98424 | .000 | |
| 18.000 | .00000 | 2636.08533 | 568.92236 | .99986 | .99843 | .99939 | .99953 | .99960 | .99781 | .98624 | .000 | |
| 20.000 | .00000 | 2632.61653 | 569.61655 | .99579 | .99700 | .99163 | .99709 | .99731 | .99556 | .98755 | .000 | |
| 22.000 | .00000 | 2634.47891 | 568.35259 | .99031 | .93367 | .98323 | .99101 | .99225 | .99465 | .92362 | .000 | |
| 24.000 | .00000 | 2630.10681 | 567.55264 | .98119 | .98508 | .97461 | .98104 | .98680 | .99017 | .99266 | .000 | |
| GRADIENT | .00000 | .55853 | .14089 | -.00011 | -.00014 | .00009 | .00097 | -.00003 | -.00014 | .09340 | .000 | |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .900 | PARAMETRIC DATA | | | | | | | | | | |
|----------|--------|-----------------|------------|---------|---------|---------|---------|---------|---------|--------|----------|----------|
| ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC | ELEVON = | BDFLAP = |
| 2.000 | .00000 | 2113.98108 | 854.05185 | .99906 | 1.00012 | .99987 | .99925 | .99922 | .99845 | .89148 | .000 | |
| 4.000 | .00000 | 2112.05286 | 853.27899 | .99939 | .99912 | .99946 | 1.00029 | 1.00101 | .99940 | .93489 | .000 | |
| 6.000 | .00000 | 2118.18839 | 855.83621 | 1.00033 | .99861 | .99860 | .99882 | .99922 | .99873 | .95937 | .000 | |
| 8.000 | .00000 | 2114.64374 | 854.34464 | .99876 | .99868 | .99781 | .99760 | .99797 | .99766 | .97375 | .000 | |
| 10.000 | .00000 | 2110.03122 | 862.45758 | 1.00053 | .99877 | .99853 | .99959 | .99967 | .99975 | .98319 | .000 | |
| 12.000 | .00000 | 2112.73551 | 863.61572 | 1.00155 | 1.00048 | 1.00090 | 1.00055 | 1.00099 | 1.00019 | .95568 | .000 | |
| 14.000 | .00000 | 2114.63835 | 854.43839 | .99549 | .99986 | 1.00035 | .99910 | .99975 | .99910 | .99335 | .000 | |
| 16.000 | .00000 | 2117.13247 | 865.41324 | .99817 | .99860 | .99775 | .99775 | .99791 | .99739 | .99131 | .000 | |
| 18.000 | .00000 | 2116.02129 | 864.65329 | .99795 | .99984 | .99820 | .99819 | .99902 | .99872 | .93169 | .000 | |
| 20.000 | .00000 | 2113.29510 | 863.82172 | .99644 | .99790 | .99746 | .99637 | .99809 | .99809 | .99200 | .000 | |
| 22.000 | .00000 | 2111.35150 | 863.10052 | .99337 | .99540 | .99351 | .99336 | .99561 | .99505 | .99017 | .000 | |
| 24.000 | .00000 | 2110.72241 | 862.92499 | .98865 | .99174 | .98671 | .98831 | .99155 | .99248 | .98001 | .000 | |
| GRADIENT | .00000 | .14288 | .863.75931 | .97814 | .98337 | .97180 | .97784 | .98480 | .98638 | .96900 | .000 | |

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(EE7405) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILRON = .000 BDELAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|-------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| 2.000 | .0000 | .0000 | 2002.78401 | 1166.30751 | 1.00134 | 1.00119 | 1.00332 | 1.00057 | 1.00016 | .99986 | 1.00010 |
| 2.000 | .0000 | .0000 | 2006.93002 | 1155.34581 | 1.00251 | 1.00188 | 1.00041 | 1.00048 | 1.00133 | 1.00068 | .99155 |
| 4.000 | .0000 | .0000 | 2006.95340 | 1165.05922 | 1.00241 | 1.00149 | 1.00033 | 1.00039 | 1.00110 | 1.00121 | .99701 |
| 6.000 | .0000 | .0000 | 2012.21327 | 1167.47879 | 1.00230 | 1.00230 | 1.00126 | 1.00045 | 1.00164 | 1.00243 | 1.00546 |
| 8.000 | .0000 | .0000 | 2012.21327 | 1167.27747 | 1.00330 | 1.00225 | 1.00127 | 1.00032 | 1.00107 | 1.00261 | 1.00313 |
| 10.000 | .0000 | .0000 | 2012.25740 | 1157.41291 | 1.00142 | 1.00218 | 1.00225 | .99242 | .99975 | 1.00265 | 1.00560 |
| 12.000 | .0000 | .0000 | 2012.65650 | 1157.71957 | 1.00268 | 1.00261 | 1.00164 | .99242 | 1.00244 | 1.00260 | 1.00590 |
| 14.000 | .0000 | .0000 | 2012.78661 | 1167.79337 | 1.00223 | 1.00133 | 1.00050 | .99242 | .99242 | .99242 | 1.00237 |
| 16.000 | .0000 | .0000 | 2011.04118 | 1167.02246 | 1.00074 | 1.00038 | .99932 | .99843 | .99778 | .99812 | 1.00440 |
| 18.000 | .0000 | .0000 | 2012.20630 | 1167.54176 | .99932 | .99998 | .99254 | .99430 | .99482 | .99593 | 1.00129 |
| 20.000 | .0000 | .0000 | 2018.50417 | 1170.38017 | .99641 | .99759 | .99545 | .99430 | .99208 | .99302 | 1.00754 |
| 22.000 | .0000 | .0000 | 2017.94965 | 1170.20888 | .99296 | .99485 | .99 85 | .99217 | .99272 | .99097 | 1.00178 |
| 24.000 | .0000 | .0000 | 2014.17348 | 1168.68396 | .98771 | .99091 | .98174 | .98967 | .99072 | .00034 | 1.00077 |
| GRADIENT | | | -.70768 | -.31207 | .00027 | .00008 | .00000 | -.00005 | .00023 | .00034 | -.00077 |

PN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|-------|------------|------------|---------|---------|---------|--------|--------|---------|---------|
| 2.000 | .0000 | .0000 | 2043.25790 | 1316.08347 | 1.00822 | 1.00056 | .99972 | .98489 | .99085 | .99984 | 1.00539 |
| 4.000 | .0000 | .0000 | 2048.25000 | 1318.84294 | 1.01036 | 1.00448 | 1.00492 | .99035 | .99362 | 1.00139 | 1.00973 |
| 6.000 | .0000 | .0000 | 2046.35710 | 1317.71530 | 1.01000 | 1.00531 | 1.00461 | .99056 | .99362 | 1.00162 | 1.00410 |
| 8.000 | .0000 | .0000 | 2036.66442 | 1312.57154 | 1.01114 | 1.00382 | 1.00134 | .99056 | .99270 | 1.00206 | .99324 |
| 10.000 | .0000 | .0000 | 2036.48167 | 1312.71315 | 1.01114 | 1.00639 | 1.00073 | .99059 | .99270 | 1.00112 | .97867 |
| 12.000 | .0000 | .0000 | 2037.06380 | 1313.10266 | 1.00860 | 1.00313 | 1.00313 | .99117 | .99317 | 1.00017 | .97862 |
| 14.000 | .0000 | .0000 | 2032.87712 | 1310.74069 | 1.00776 | 1.00196 | 1.00409 | .99117 | .99362 | .99566 | .97400 |
| 16.000 | .0000 | .0000 | 2034.53185 | 1311.66714 | 1.00774 | 1.00248 | 1.00360 | .99300 | .99362 | 1.00039 | .98145 |
| 18.000 | .0000 | .0000 | 2038.71129 | 1313.86484 | 1.00599 | 1.00114 | 1.00219 | .99300 | .99362 | 1.00054 | .98145 |
| 20.000 | .0000 | .0000 | 2034.88971 | 1311.72469 | 1.00294 | .99783 | .99556 | .99300 | .99164 | .99838 | .97438 |
| 22.000 | .0000 | .0000 | 2039.22078 | 1308.74098 | 1.00297 | .99296 | .98856 | .98117 | .98866 | .99504 | .95464 |
| 24.000 | .0000 | .0000 | 2029.79141 | 1302.25305 | .99336 | .98838 | .98793 | .97540 | .98452 | .99249 | .94726 |
| GRADIENT | | | 2026.09595 | 1308.36984 | .98859 | .98422 | .98406 | .96815 | .97792 | .98369 | .94726 |
| | | | .77728 | .40796 | .00044 | .00119 | .00220 | .00220 | .00079 | .00045 | -.00032 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
AILLON = .000 BBFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.550 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|--------|------------|------------|---------|---------|--------|---------|---------|---------|---------|
| ALPHA .000 | .00000 | 1580.54595 | 1045.16287 | 1.01073 | 1.00191 | .93501 | .98504 | .99683 | 1.00966 | -.10668 |
| 2.000 | .00000 | 1581.95228 | 1046.11082 | 1.01197 | .99761 | .98875 | .98672 | 1.00024 | 1.00993 | -.10486 |
| 4.000 | .00000 | 1581.60306 | 1045.84969 | 1.01250 | .99947 | .98950 | .99301 | 1.00340 | 1.01324 | -.10568 |
| 6.000 | .00000 | 1581.71835 | 1045.91879 | 1.01436 | 1.00513 | .99199 | .99401 | 1.00402 | 1.01293 | -.10993 |
| 8.000 | .00000 | 1582.28732 | 1046.51267 | 1.02042 | 1.01254 | .99702 | .99700 | 1.00521 | 1.01531 | -.11277 |
| 10.000 | .00000 | 1584.01578 | 1047.40005 | 1.01938 | 1.01280 | .99742 | .99873 | 1.00529 | 1.01457 | -.11545 |
| 12.000 | .00000 | 1584.74577 | 1047.86478 | 1.01796 | 1.01124 | .99813 | .99104 | 1.00296 | 1.01375 | -.12139 |
| 14.000 | .00000 | 1584.30254 | 1047.57710 | 1.01623 | 1.01123 | .99900 | .99730 | 1.00530 | 1.01407 | -.12336 |
| 16.000 | .00000 | 1584.53708 | 1047.73572 | 1.01300 | 1.00791 | .99713 | 1.00150 | 1.00737 | 1.01416 | -.12734 |
| 18.000 | .00000 | 1585.24020 | 1048.17926 | 1.00869 | 1.00110 | .98798 | .99252 | 1.00041 | 1.00939 | -.12966 |
| 20.000 | .00000 | 1585.26917 | 1048.20312 | 1.00490 | .99867 | .98421 | .98302 | .99331 | 1.00450 | -.13092 |
| 22.000 | .00000 | 1584.67165 | 1047.81394 | 1.00176 | .99551 | .98080 | .97857 | .99079 | 1.00081 | -.13618 |
| 24.000 | .00000 | 1584.25276 | 1047.53178 | .99713 | .99059 | .97625 | .97575 | .98754 | .99582 | -.14717 |
| GRADIENT | .00000 | .26428 | .17171 | .00044 | -.00051 | .00087 | .00199 | .00164 | .00117 | .00025 |

RN/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 1.750 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|--------|------------|------------|---------|---------|---------|---------|---------|---------|---------|
| ALPHA .000 | .00000 | 1657.74608 | 1072.15997 | 1.03232 | 1.01493 | .98137 | .98587 | 1.00959 | 1.03117 | -.12426 |
| 2.000 | .00000 | 1657.99976 | 1072.31970 | 1.03543 | 1.01459 | .97907 | .98859 | 1.01355 | 1.03407 | -.12440 |
| 4.000 | .00000 | 1657.20947 | 1071.81404 | 1.03700 | 1.01768 | .98099 | .99395 | 1.01697 | 1.03721 | -.12532 |
| 6.000 | .00000 | 1656.47336 | 1071.34035 | 1.04138 | 1.02822 | .99592 | .98997 | 1.02096 | 1.03884 | -.12683 |
| 8.000 | .00000 | 1657.27576 | 1071.85733 | 1.04331 | 1.02925 | 1.00459 | .99977 | 1.02132 | 1.03855 | -.13179 |
| 10.000 | .00000 | 1657.32759 | 1071.89681 | 1.04331 | 1.03168 | 1.00355 | 1.00577 | 1.02372 | 1.04054 | -.13629 |
| 12.000 | .00000 | 1656.50393 | 1071.35353 | 1.04455 | 1.03188 | 1.01177 | 1.00033 | 1.02440 | 1.04352 | -.13714 |
| 14.000 | .00000 | 1657.07622 | 1071.72599 | 1.04214 | 1.03141 | 1.01297 | 1.00870 | 1.02525 | 1.04103 | -.13808 |
| 16.000 | .00000 | 1656.60495 | 1071.42461 | 1.03500 | 1.02614 | 1.01153 | 1.01264 | 1.02951 | 1.03974 | -.14162 |
| 18.000 | .00000 | 1656.32849 | 1071.24562 | 1.03110 | 1.01912 | .99983 | 1.00903 | 1.02222 | 1.03724 | -.14355 |
| 20.000 | .00000 | 1656.80573 | 1071.54903 | 1.02656 | 1.01470 | .98347 | .98633 | 1.02059 | 1.03634 | -.14665 |
| 22.000 | .00000 | 1657.27547 | 1071.85149 | 1.02093 | 1.01001 | .98426 | .98232 | 1.01432 | 1.03049 | -.15206 |
| 24.000 | .00000 | 1657.16254 | 1071.77823 | 1.02191 | 1.00853 | .97446 | .98104 | 1.00361 | 1.01992 | -.15650 |
| GRADIENT | .00000 | -.13413 | -.08649 | .00117 | -.00069 | -.00310 | .00232 | .00162 | .00151 | -.00027 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

(BE7-H05) 1 02 AUG 75)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. YO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = .000 ELEVON = .000
AILRON = .000 RCFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.000 | ALPHA | BETA | PT | QCOMP | PT11/OC | PT12/OC | PT13/OC | PT14/OC | PT15/OC | PT16/OC | PT17/OC |
|--------------|------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .000 | 1847.14075 | 1094.43971 | 1.04514 | 1.01061 | .95748 | .97544 | 1.02169 | 1.05926 | 1.08555 | | |
| 2.000 | 1846.77534 | 1094.21881 | 1.05022 | 1.02204 | .96686 | .98034 | 1.02739 | 1.06334 | 1.08504 | | |
| 4.000 | 1847.06462 | 1094.37987 | 1.05572 | 1.02836 | .97666 | .98257 | 1.02710 | 1.05531 | 1.05226 | | |
| 6.000 | 1846.70287 | 1094.17278 | 1.05846 | 1.03978 | .9825 | .98920 | 1.03342 | 1.05750 | 1.0582 | | |
| 8.000 | 1846.64723 | 1094.25835 | 1.05738 | 1.03014 | .98669 | .99272 | 1.03405 | 1.05705 | 1.0781 | | |
| 10.000 | 1847.73077 | 1094.84930 | 1.05017 | 1.03545 | .99715 | .99767 | 1.03759 | 1.05644 | 1.1162 | | |
| 12.000 | 1847.05197 | 1094.41403 | 1.05613 | 1.03473 | 1.00134 | 1.00098 | 1.04129 | 1.07040 | 1.1559 | | |
| 14.000 | 1846.76268 | 1094.21408 | 1.05525 | 1.03503 | 1.00005 | 1.00333 | 1.04154 | 1.06967 | 1.1525 | | |
| 16.000 | 1846.79220 | 1094.26558 | 1.05188 | 1.03253 | 1.00490 | 1.00811 | 1.03708 | 1.06283 | 1.1933 | | |
| 18.000 | 1846.62433 | 1094.14917 | 1.04855 | 1.02899 | .98704 | 1.00621 | 1.03229 | 1.06135 | 1.1952 | | |
| 20.000 | 1846.86009 | 1094.30549 | 1.04409 | 1.02268 | .98293 | 1.00336 | 1.03322 | 1.05921 | 1.2066 | | |
| 22.000 | 1846.82697 | 1094.29134 | 1.03579 | 1.01528 | .97373 | 1.00124 | 1.02767 | 1.05422 | 1.2415 | | |
| 24.000 | 1845.84973 | 1093.69992 | 1.02603 | 1.00630 | .96538 | 1.00509 | 1.02223 | 1.04755 | 1.2841 | | |
| GRADIENT | -.01495 | -.01495 | .00264 | .00944 | .00479 | .00178 | .00136 | .00151 | .00043 | | |

RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.250 | ALPHA | BETA | PT | QCOMP | PT11/OC | PT12/OC | PT13/OC | PT14/OC | PT15/OC | PT16/OC | PT17/OC |
|--------------|------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .000 | 2059.62274 | 1069.13588 | 1.06731 | 1.02022 | .93287 | .95222 | 1.02903 | 1.08064 | 1.08912 | | |
| 2.000 | 2059.69022 | 1069.17059 | 1.07272 | 1.02646 | .94367 | .95623 | 1.03380 | 1.08734 | 1.09077 | | |
| 4.000 | 2059.24142 | 1069.93941 | 1.07669 | 1.03569 | .95410 | .96184 | 1.03235 | 1.08765 | 1.08965 | | |
| 6.000 | 2059.67896 | 1069.16425 | 1.08317 | 1.04179 | .95993 | .97140 | 1.03953 | 1.09162 | 1.08876 | | |
| 8.000 | 2059.63947 | 1069.14375 | 1.08617 | 1.04714 | .97698 | .98054 | 1.04928 | 1.09504 | 1.09933 | | |
| 10.000 | 2059.11798 | 1069.87497 | 1.08894 | 1.05168 | .99091 | .99080 | 1.05359 | 1.09779 | 1.09344 | | |
| 12.000 | 2059.74341 | 1069.68224 | 1.08745 | 1.05612 | .99946 | .99585 | 1.05430 | 1.09441 | 1.09570 | | |
| 14.000 | 2059.55093 | 1069.09737 | 1.08516 | 1.05709 | 1.00620 | 1.00175 | 1.05601 | 1.09441 | 1.09774 | | |
| 16.000 | 2059.35752 | 1069.00357 | 1.08953 | 1.05865 | 1.01073 | 1.00606 | 1.05554 | 1.09105 | 1.09925 | | |
| 18.000 | 2058.83893 | 1069.73170 | 1.07884 | 1.04933 | 1.00473 | 1.00527 | 1.05381 | 1.08651 | 1.10368 | | |
| 20.000 | 2059.20343 | 1069.91862 | 1.07121 | 1.04233 | .98745 | .98962 | 1.04751 | 1.08398 | 1.1012 | | |
| 22.000 | 2058.94348 | 1069.78462 | 1.05894 | 1.03045 | .97312 | .96957 | 1.03973 | 1.07498 | 1.10378 | | |
| 24.000 | 2058.85312 | 1069.73825 | 1.04905 | 1.01815 | .96260 | .96110 | 1.03233 | 1.06925 | 1.10542 | | |
| GRADIENT | -.09532 | -.04911 | .00234 | .00387 | .00356 | .00241 | .00063 | .00180 | .00013 | | |

TABULATED DATA - 0A161 (ARC 11-97-87-09+)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(BETHDS) (02 AUG 76)

REFERENCE DATA

SREF = 2692.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AILRON = .000 ESFLAP = -7.170

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|----------|
| | .000 | .00000 | 1495.02940 | 658.00838 | 1.11824 | 1.05881 | 0.94394 | 0.92709 | 1.03003 | 1.05976 | -0.07657 |
| | 2.000 | .00000 | 1495.07198 | 658.02643 | 1.12325 | 1.06774 | 0.95253 | 0.93497 | 1.03641 | 1.10368 | -0.07774 |
| | 4.000 | .00000 | 1494.35016 | 657.70238 | 1.12649 | 1.07597 | 0.96861 | 0.94123 | 1.03826 | 1.11087 | -0.08057 |
| | 6.000 | .00000 | 1494.24654 | 657.97271 | 1.12914 | 1.08008 | 0.98504 | 0.94959 | 1.04645 | 1.11611 | -0.08351 |
| | 8.000 | .00000 | 1493.11934 | 658.04583 | 1.13437 | 1.08630 | 0.9446 | 0.9351 | 1.05582 | 1.11946 | -0.08679 |
| | 10.000 | .00000 | 1494.33228 | 657.63719 | 1.13795 | 1.09373 | 1.00463 | 0.9399 | 1.06399 | 1.12329 | -0.08955 |
| | 12.000 | .00000 | 1494.99853 | 657.92431 | 1.13676 | 1.09718 | 1.02117 | 0.9399 | 1.06925 | 1.12560 | -0.09145 |
| | 14.000 | .00000 | 1494.32782 | 657.69506 | 1.1352 | 1.09635 | 1.02919 | 0.9399 | 1.07400 | 1.12503 | -0.09308 |
| | 16.000 | .00000 | 1494.83258 | 657.95069 | 1.13089 | 1.09230 | 1.03065 | 1.00222 | 1.07293 | 1.12503 | -0.09443 |
| | 18.000 | .00000 | 1494.35973 | 657.71090 | 1.12388 | 1.08905 | 1.03314 | 1.00733 | 1.07116 | 1.11883 | -0.09503 |
| | 20.000 | .00000 | 1494.85466 | 657.93397 | 1.11399 | 1.08063 | 1.02946 | 1.00344 | 1.06625 | 1.11237 | -0.09628 |
| | 22.000 | .00000 | 1494.36290 | 657.71252 | 1.10193 | 1.06756 | 1.01653 | 0.99906 | 1.05534 | 1.10315 | -0.08992 |
| | 24.000 | .00000 | 1494.88379 | 657.9775 | 1.08560 | 1.05376 | 1.00459 | 0.98775 | 1.04530 | 1.09617 | -0.09751 |
| | GRADIENT | .00000 | -1.5982 | -0.07650 | 0.00206 | 0.00429 | 0.00317 | 0.00353 | 0.00206 | 0.00278 | -0.00100 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|----------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|----------|
| | .000 | .00000 | 1940.57853 | 565.06326 | 1.21204 | 1.11554 | 0.93306 | 0.90344 | 1.06154 | 1.16558 | -0.05572 |
| | 2.000 | .00000 | 1940.33086 | 565.97689 | 1.21706 | 1.12865 | 0.94641 | 0.91147 | 1.06590 | 1.17778 | -0.05601 |
| | 4.000 | .00000 | 1939.42018 | 565.72091 | 1.22353 | 1.14231 | 0.95923 | 0.9284 | 1.07328 | 1.18450 | -0.0578 |
| | 6.000 | .00000 | 1939.55391 | 565.84290 | 1.22508 | 1.14746 | 0.95329 | 0.9322 | 1.07578 | 1.19141 | -0.0578 |
| | 8.000 | .00000 | 1938.91022 | 565.63232 | 1.23043 | 1.15551 | 1.00921 | 0.9335 | 1.08991 | 1.19574 | -0.0594 |
| | 10.000 | .00000 | 1939.71490 | 565.82295 | 1.23144 | 1.16187 | 1.02593 | 0.9340 | 1.0950 | 1.19957 | -0.0594 |
| | 12.000 | .00000 | 1939.98939 | 565.72941 | 1.23244 | 1.17143 | 1.05042 | 0.9320 | 1.1013 | 1.20151 | -0.0596 |
| | 14.000 | .00000 | 1939.37943 | 565.78307 | 1.22520 | 1.16744 | 1.05832 | 0.9320 | 1.1013 | 1.20151 | -0.0596 |
| | 16.000 | .00000 | 1938.79555 | 565.63618 | 1.22530 | 1.15832 | 1.06470 | 0.9344 | 1.12423 | 1.19918 | -0.06201 |
| | 18.000 | .00000 | 1939.37152 | 565.80401 | 1.20530 | 1.15036 | 1.06492 | 0.9371 | 1.1241 | 1.19450 | -0.06142 |
| | 20.000 | .00000 | 1939.61790 | 565.87935 | 1.18724 | 1.13777 | 1.05324 | 0.9368 | 1.1158 | 1.18558 | -0.06193 |
| | 22.000 | .00000 | 1939.82946 | 565.63665 | 1.17012 | 1.11661 | 1.03300 | 0.9330 | 1.0923 | 1.17222 | -0.06193 |
| | 24.000 | .00000 | 1939.35516 | 565.82502 | 1.14997 | 1.09217 | 1.02322 | 0.9342 | 1.0823 | 1.15611 | -0.06193 |
| | GRADIENT | .00000 | -1.28951 | -0.05559 | 0.00287 | 0.00663 | 0.00329 | 0.00488 | 0.00204 | 0.00288 | -0.00109 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = .000 ELEVON = .000
A1LRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEC = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO
LREF = 474.6000 IN. YMRP = .0000 IN. YO
SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RV/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.500 | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|--------|--------|------------|-----------|---------|---------|---------|--------|---------|---------|---------|
| | 300 | .00000 | 2633.31985 | 526.99953 | 1.23878 | 1.11476 | .87933 | .64415 | 1.03868 | 1.17977 | -.03855 |
| | 2.000 | .00000 | 2640.01666 | 527.13617 | 1.24802 | 1.13222 | .89567 | .85319 | 1.04487 | 1.19175 | -.03771 |
| | 4.000 | .00000 | 2640.89926 | 527.31057 | 1.25404 | 1.14654 | .92095 | .86927 | 1.05799 | 1.19678 | -.03875 |
| | 6.000 | .00000 | 2644.64433 | 528.05621 | 1.25978 | 1.15247 | .95551 | .88533 | 1.06967 | 1.20382 | -.04013 |
| | 8.000 | .00000 | 2646.62357 | 528.45923 | 1.26050 | 1.16294 | .97459 | .91700 | 1.08940 | 1.21284 | -.03966 |
| | 10.000 | .00000 | 2646.80231 | 528.49225 | 1.25714 | 1.16559 | .98604 | .93765 | 1.10304 | 1.21849 | -.04057 |
| | 12.000 | .00000 | 2647.36554 | 529.60566 | 1.25559 | 1.17681 | 1.02473 | .95941 | 1.11797 | 1.22298 | -.04167 |
| | 14.000 | .00000 | 2652.42578 | 529.60644 | 1.24206 | 1.16928 | 1.03287 | .97081 | 1.12071 | 1.22253 | -.04264 |
| | 16.000 | .00000 | 2653.07376 | 529.73420 | 1.23106 | 1.15939 | 1.04338 | .98525 | 1.12501 | 1.22377 | -.04362 |
| | 18.000 | .00000 | 2653.25250 | 529.18677 | 1.21394 | 1.14475 | 1.03735 | .98747 | 1.11890 | 1.21564 | -.04416 |
| | 20.000 | .00000 | 2651.57239 | 529.43937 | 1.19690 | 1.12766 | 1.02459 | .98494 | 1.10799 | 1.20652 | -.04364 |
| | 22.000 | .00000 | 2652.55411 | 529.63333 | 1.17495 | 1.10649 | 1.00742 | .97784 | 1.09275 | 1.19324 | -.04366 |
| | 24.000 | .00000 | 2651.96224 | 529.51771 | 1.15125 | 1.08580 | .99017 | .96370 | 1.07577 | 1.17844 | -.04270 |
| GRADIENT | | .00000 | .39504 | .07776 | .00381 | .00794 | .01041 | .00628 | .00483 | .00425 | -.00005 |

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .600 | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------------|---------|-----------|----------|---------|---------|---------|---------|---------|---------|--------|
| ALPHA | 2.00000 | 2623.0827 | 567.2225 | 1.00178 | 1.00227 | 1.00091 | 1.00153 | 1.00213 | 1.00168 | .94697 |
| .000 | 2.00000 | 2625.4954 | 565.6724 | 1.00213 | 1.00213 | 1.00033 | 1.00179 | 1.00291 | 1.00200 | .95526 |
| 2.000 | 2.00000 | 2627.7624 | 567.2655 | 1.00221 | 1.00269 | 1.00165 | 1.00027 | 1.00225 | 1.00244 | .97894 |
| 4.000 | 2.00000 | 2627.0014 | 567.0310 | 1.00173 | 1.00099 | 1.00184 | 1.00052 | 1.00134 | 1.00122 | .98655 |
| 6.000 | 2.00000 | 2626.9734 | 565.9571 | 1.00126 | 1.00109 | 1.00130 | 1.00275 | 1.00125 | 1.00275 | .99091 |
| 8.000 | 2.00000 | 2626.3122 | 565.8989 | 1.00226 | 1.00105 | 1.00120 | 1.00142 | 1.00214 | 1.00052 | .99533 |
| 10.000 | 2.00000 | 2626.3122 | 566.8348 | 1.00240 | 1.00255 | 1.00295 | 1.00111 | 1.00050 | 1.00250 | .99527 |
| 12.000 | 2.00000 | 2626.9917 | 567.6472 | 1.00202 | 1.00240 | 1.00121 | 1.00115 | 1.00050 | 1.00197 | .99434 |
| 14.000 | 2.00000 | 2627.4277 | 567.2050 | 1.00200 | 1.00275 | 1.00121 | 1.00115 | 1.00050 | 1.00119 | .99532 |
| 16.000 | 2.00000 | 2626.3122 | 566.8459 | 1.00200 | 1.00275 | 1.00121 | 1.00115 | 1.00050 | 1.00119 | .99532 |
| 18.000 | 2.00000 | 2626.3122 | 566.8459 | 1.00200 | 1.00275 | 1.00121 | 1.00115 | 1.00050 | 1.00119 | .99532 |
| 20.000 | 2.00000 | 2626.6553 | 565.9351 | 1.00200 | 1.00275 | 1.00121 | 1.00115 | 1.00050 | 1.00119 | .99532 |
| 22.000 | 2.00000 | 2624.2893 | 565.3346 | 1.00200 | 1.00275 | 1.00121 | 1.00115 | 1.00050 | 1.00119 | .99532 |
| 24.000 | 2.00000 | 2623.7347 | 565.1947 | 1.00200 | 1.00275 | 1.00121 | 1.00115 | 1.00050 | 1.00119 | .99532 |
| GRADIENT | .00000 | -.07975 | .01165 | .00011 | .00010 | .00019 | -.00032 | .00003 | .00019 | .00799 |

RN/L = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .900 | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------------|---------|-----------|----------|---------|---------|---------|---------|---------|---------|--------|
| ALPHA | 2.00000 | 2112.4855 | 863.5626 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| .000 | 2.00000 | 2115.9214 | 864.8716 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 2.000 | 2.00000 | 2115.1513 | 863.2742 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 4.000 | 2.00000 | 2115.6974 | 865.0919 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 6.000 | 2.00000 | 2115.9440 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 8.000 | 2.00000 | 2115.0748 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 10.000 | 2.00000 | 2115.0748 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 12.000 | 2.00000 | 2115.0748 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 14.000 | 2.00000 | 2115.0748 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 16.000 | 2.00000 | 2115.0748 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 18.000 | 2.00000 | 2115.0748 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 20.000 | 2.00000 | 2115.0748 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 22.000 | 2.00000 | 2115.0748 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| 24.000 | 2.00000 | 2115.0748 | 864.4282 | 1.00886 | 1.00941 | 1.00898 | 1.00926 | 1.00933 | 1.00904 | .98540 |
| GRADIENT | .00000 | 1.06893 | .01165 | .00029 | .00028 | .00035 | .00046 | .00055 | .00048 | .00189 |

ORIGINAL FACILITY
OF POOR QUALITY

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1075.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AILRON = .000 BDFLAP = -7.170

RN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|---------|------------|------------|---------|---------|---------|---------|---------|---------|--------|
| 1.200 | .000 | 2.00000 | 2000.55427 | 1159.49330 | 1.00138 | 1.00043 | 1.00007 | 1.00038 | 1.00081 | 1.00026 | .99960 |
| 2.000 | .000 | 2.00000 | 2000.90266 | 1159.04430 | 1.00176 | 1.00066 | 1.00076 | 1.00006 | 1.00030 | 1.00161 | .99990 |
| 4.000 | .000 | 2.00000 | 2000.90081 | 1159.14094 | 1.00256 | 1.00162 | 1.00117 | 1.00125 | 1.00184 | 1.00314 | .99947 |
| 6.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| 8.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| 10.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| 12.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| 14.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| 16.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| 18.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| 20.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| 22.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| 24.000 | .000 | 2.00000 | 2000.90132 | 1159.17330 | 1.00335 | 1.00150 | 1.00269 | 1.00277 | 1.00273 | 1.00279 | .99947 |
| GRADIENT | | .00000 | -1.11857 | -1.11857 | .00017 | .00030 | .00027 | .00022 | .00026 | .00057 | .00072 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|---------|------------|------------|---------|---------|--------|---------|---------|---------|---------|
| 1.400 | .000 | 2.00000 | 2044.20187 | 1316.73218 | 1.00017 | .99257 | .99303 | .99284 | .99881 | 1.00704 | .99302 |
| 2.000 | .000 | 2.00000 | 2044.40904 | 1317.92126 | 1.00398 | .99309 | .99316 | .99749 | 1.00093 | 1.00877 | 1.00106 |
| 4.000 | .000 | 2.00000 | 2044.40903 | 1315.15579 | 1.00362 | .99374 | .99394 | 1.00067 | 1.00101 | 1.00815 | .99263 |
| 6.000 | .000 | 2.00000 | 2044.57149 | 1314.89333 | 1.00423 | 1.00042 | .99739 | 1.00065 | 1.00154 | 1.00917 | .99339 |
| 8.000 | .000 | 2.00000 | 2044.77563 | 1315.00722 | 1.00471 | .99885 | .99599 | 1.00017 | 1.00177 | 1.00856 | .99156 |
| 10.000 | .000 | 2.00000 | 2044.94433 | 1315.11476 | 1.00379 | .99705 | .99338 | .99885 | 1.00119 | 1.00753 | .98223 |
| 12.000 | .000 | 2.00000 | 2044.94433 | 1315.11476 | 1.00379 | .99705 | .99338 | .99885 | 1.00119 | 1.00753 | .98223 |
| 14.000 | .000 | 2.00000 | 2044.66127 | 1314.43022 | 1.00308 | .99587 | .99496 | 1.00207 | 1.00397 | 1.00914 | .99580 |
| 16.000 | .000 | 2.00000 | 2044.66127 | 1314.43022 | 1.00308 | .99587 | .99496 | 1.00207 | 1.00397 | 1.00914 | .99580 |
| 18.000 | .000 | 2.00000 | 2044.66127 | 1314.43022 | 1.00308 | .99587 | .99496 | 1.00207 | 1.00397 | 1.00914 | .99580 |
| 20.000 | .000 | 2.00000 | 2044.66127 | 1314.43022 | 1.00308 | .99587 | .99496 | 1.00207 | 1.00397 | 1.00914 | .99580 |
| 22.000 | .000 | 2.00000 | 2044.66127 | 1314.43022 | 1.00308 | .99587 | .99496 | 1.00207 | 1.00397 | 1.00914 | .99580 |
| 24.000 | .000 | 2.00000 | 2044.66127 | 1314.43022 | 1.00308 | .99587 | .99496 | 1.00207 | 1.00397 | 1.00914 | .99580 |
| GRADIENT | | .00000 | -1.69321 | -1.39160 | .00086 | .00104 | .00145 | .00196 | .00055 | .00028 | -.00010 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

ARC 11-97-87-094 OA161 ORBITER + RAKES

(BETH06) (02 AUG 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 AILRON = .000 SDFLAP = -7.170

MACH = 1.550
 ALPHA = .000
 RNL = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|---------|------------|------------|---------|---------|--------|---------|---------|---------|---------|
| 2.00000 | 1568.49995 | 1036.97801 | 1.00122 | .99124 | .97832 | 1.00226 | 1.01390 | 1.02451 | -1.1628 |
| 2.00000 | 1570.76030 | 1038.46596 | 1.00134 | .98956 | .97926 | 1.00348 | 1.01496 | 1.02497 | -1.1512 |
| 2.00000 | 1572.20036 | 1039.32613 | 1.00348 | .99237 | .98212 | 1.00579 | 1.01819 | 1.02705 | -1.1557 |
| 2.00000 | 1572.37077 | 1039.43916 | 1.00634 | .99946 | .98724 | 1.00908 | 1.02134 | 1.02917 | -1.1244 |
| 2.00000 | 1573.70795 | 1040.33282 | 1.01179 | 1.00428 | .98990 | 1.01151 | 1.02187 | 1.02969 | -1.1642 |
| 2.00000 | 1573.65640 | 1040.31351 | 1.00993 | 1.00425 | .98990 | 1.01189 | 1.02107 | 1.02823 | -1.2615 |
| 2.00000 | 1572.64693 | 1039.63991 | 1.01119 | 1.00496 | .98202 | 1.01511 | 1.02285 | 1.03035 | -1.2641 |
| 2.00000 | 1572.69780 | 1039.67572 | 1.00729 | 1.00145 | .98978 | 1.01197 | 1.01985 | 1.02760 | -1.2922 |
| 2.00000 | 1572.12041 | 1039.27925 | .99985 | .99227 | .98051 | 1.01267 | 1.01915 | 1.02760 | -1.3155 |
| 2.00000 | 1571.97598 | 1039.19076 | .99531 | .98681 | .97518 | 1.01351 | 1.01915 | 1.02760 | -1.3155 |
| 2.00000 | 1574.13752 | 1040.62433 | .98702 | .98161 | .97044 | 1.01048 | 1.01534 | 1.02477 | -1.3521 |
| 2.00000 | 1574.42464 | 1042.11156 | .97980 | .97454 | .96102 | 1.00565 | 1.01160 | 1.01898 | -1.4207 |
| 2.00000 | 1576.99655 | 1042.49995 | .97545 | .96785 | .95088 | .99989 | 1.00577 | 1.01077 | -1.5239 |
| .00000 | .92511 | .58703 | .00057 | .00028 | .00095 | .00113 | .00107 | .00063 | .00018 |

MACH = 1.750
 ALPHA = .000
 PNL = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|---------|------------|------------|---------|---------|--------|---------|---------|---------|---------|
| 2.00000 | 1656.77100 | 1071.52611 | 1.00991 | .99178 | .96262 | 1.00539 | 1.02889 | 1.04773 | -1.2714 |
| 2.00000 | 1655.31691 | 1070.59709 | 1.01404 | .99992 | .96957 | 1.00861 | 1.03207 | 1.05048 | -1.2824 |
| 2.00000 | 1655.46857 | 1070.69418 | 1.01614 | 1.00093 | .97295 | 1.01159 | 1.03611 | 1.05390 | -1.2737 |
| 2.00000 | 1655.59386 | 1070.77524 | 1.02084 | 1.00585 | .97821 | 1.01488 | 1.03695 | 1.05499 | -1.2634 |
| 2.00000 | 1656.17559 | 1071.14615 | 1.02265 | 1.00741 | .98237 | 1.01515 | 1.03739 | 1.05419 | -1.2928 |
| 2.00000 | 1656.23152 | 1071.18300 | 1.02096 | 1.00292 | .98549 | 1.02105 | 1.03705 | 1.05624 | -1.3223 |
| 2.00000 | 1656.29276 | 1071.22061 | 1.01920 | 1.00747 | .98855 | 1.02753 | 1.04324 | 1.05949 | -1.3595 |
| 2.00000 | 1656.36491 | 1071.26796 | 1.01594 | 1.00318 | .98715 | 1.02801 | 1.04458 | 1.06115 | -1.3952 |
| 2.00000 | 1655.64930 | 1070.81123 | 1.01235 | .99901 | .97756 | 1.03470 | 1.04752 | 1.06077 | -1.4165 |
| 2.00000 | 1655.62935 | 1071.11641 | 1.00708 | .99189 | .96468 | 1.03184 | 1.04429 | 1.05564 | -1.4257 |
| 2.00000 | 1655.39903 | 1071.68838 | .99962 | .98182 | .96468 | 1.02473 | 1.03761 | 1.05074 | -1.4300 |
| 2.00000 | 1655.98910 | 1071.02734 | .99092 | .98001 | .95242 | 1.01588 | 1.03364 | 1.04639 | -1.4622 |
| 2.00000 | 1655.63131 | 1070.81276 | .96219 | .97373 | .94487 | 1.00861 | 1.03054 | 1.04242 | -1.5253 |
| .00000 | -.32560 | -.23799 | .00156 | .00229 | .00253 | .00154 | .00181 | .00154 | -.00005 |

(BE7H06) (02 AUG 76)

TABLULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVON = .000
 AIRLON = .000 EDFLAP = -7.170

PARAMETRIC DATA

RV/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|---------|------------|------------|---------|--------|--------|---------|---------|---------|---------|
| 2.000 | 2.00000 | 1845.32238 | 1093.83054 | 1.00758 | .97047 | .92173 | .98897 | 1.04726 | 1.08287 | 1.0791 |
| ALPHA | .000 | 2.00000 | 1845.63019 | 1.00923 | .97656 | .92410 | 1.00568 | 1.05157 | 1.08636 | 1.0731 |
| 2.000 | 2.00000 | 1844.79626 | 1093.10722 | 1.01259 | .98176 | .93225 | 1.00804 | 1.05520 | 1.08929 | 1.0758 |
| 4.000 | 2.00000 | 1844.09950 | 1092.66437 | 1.01768 | .98819 | .94356 | 1.01651 | 1.05849 | 1.09170 | 1.0793 |
| 6.000 | 2.00000 | 1845.05612 | 1093.29320 | 1.02269 | .99642 | .94976 | 1.01906 | 1.05962 | 1.09199 | 1.0833 |
| 8.000 | 2.00000 | 1845.24762 | 1093.83081 | 1.02820 | .99940 | .95994 | 1.02096 | 1.06093 | 1.08965 | 1.1062 |
| 10.000 | 2.00000 | 1845.33353 | 1093.45602 | 1.02174 | .99815 | .96201 | 1.02660 | 1.06442 | 1.09220 | 1.1320 |
| 12.000 | 2.00000 | 1845.05315 | 1093.65130 | 1.01926 | .99686 | .96272 | 1.03515 | 1.06491 | 1.09220 | 1.1762 |
| 14.000 | 2.00000 | 1845.19592 | 1093.93427 | 1.01595 | .99534 | .96554 | 1.03754 | 1.06471 | 1.08926 | 1.1993 |
| 16.000 | 2.00000 | 1845.65709 | 1094.20544 | 1.01055 | .98845 | .94550 | 1.03208 | 1.05876 | 1.08662 | 1.2184 |
| 18.000 | 2.00000 | 1847.25253 | 1094.62527 | 1.00366 | .98164 | .93905 | 1.02307 | 1.05593 | 1.08063 | 1.2459 |
| 20.000 | 2.00000 | 1847.20595 | 1094.59354 | .99537 | .97468 | .93238 | 1.02307 | 1.05593 | 1.08063 | 1.2679 |
| 22.000 | 2.00000 | 1846.34912 | 1094.98334 | .98148 | .96004 | .91794 | 1.01853 | 1.05335 | 1.07695 | 1.27695 |
| GRADIENT | .00000 | -.29691 | -.18083 | .00125 | .00282 | .00263 | .00227 | .00198 | .00161 | .00008 |

RV/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|---------|------------|------------|---------|---------|--------|---------|---------|---------|---------|
| 2.250 | 2.00000 | 2059.21463 | 1068.92479 | 1.02613 | .97596 | .89622 | .98705 | 1.06366 | 1.11401 | 1.08677 |
| ALPHA | .000 | 2.00000 | 2059.05692 | 1.03115 | .98123 | .90533 | .99393 | 1.07165 | 1.12065 | 1.08862 |
| 2.000 | 2.00000 | 2059.38257 | 1068.91056 | 1.03503 | .99120 | .91374 | 1.00139 | 1.07326 | 1.12562 | 1.08959 |
| 4.000 | 2.00000 | 2059.19321 | 1068.91364 | 1.04064 | 1.00092 | .93104 | 1.01288 | 1.08173 | 1.13151 | 1.08668 |
| 6.000 | 2.00000 | 2059.07996 | 1069.85469 | 1.04486 | 1.00630 | .93958 | 1.02167 | 1.08642 | 1.13331 | 1.08759 |
| 8.000 | 2.00000 | 2052.48004 | 1069.05988 | 1.04784 | 1.01327 | .95543 | 1.02810 | 1.09169 | 1.13254 | 1.09303 |
| 10.000 | 2.00000 | 2058.62692 | 1068.62146 | 1.05131 | 1.01679 | .96146 | 1.03506 | 1.09498 | 1.13395 | 1.09676 |
| 12.000 | 2.00000 | 2059.07443 | 1069.85205 | 1.05301 | 1.02076 | .96819 | 1.04068 | 1.09325 | 1.13272 | 1.09605 |
| 14.000 | 2.00000 | 2058.61588 | 1068.61566 | 1.04683 | 1.01826 | .96767 | 1.04585 | 1.09502 | 1.12820 | 1.10014 |
| 16.000 | 2.00000 | 2058.53253 | 1068.57248 | 1.04416 | 1.01230 | .95655 | 1.04424 | 1.09262 | 1.12820 | 1.10104 |
| 18.000 | 2.00000 | 2058.52417 | 1068.56763 | 1.03346 | 1.00280 | .94429 | 1.04345 | 1.08532 | 1.12394 | 1.10357 |
| 20.000 | 2.00000 | 2058.59705 | 1068.60429 | 1.01878 | .98931 | .97149 | 1.03313 | 1.07975 | 1.11820 | 1.10393 |
| 22.000 | 2.00000 | 2059.37756 | 1068.49115 | 1.00980 | .97871 | .98287 | 1.02561 | 1.07643 | 1.11124 | 1.10393 |
| GRADIENT | .00000 | -.54193 | -.02144 | .00222 | .00381 | .00438 | .00358 | .00240 | .00290 | -.00091 |

(BETH06) (02 AUG 75)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BCFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMPP = 1076.6800 IN. XO
REF = 474.8000 IN. YMRP = .0000 IN. YO
REF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 2.500 | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|----------|---------|------------|-----------|---------|---------|--------|---------|---------|---------|---------|
| | .000 | 2.00000 | 1487.32057 | 654.60834 | 1.06017 | .98829 | .89155 | .97453 | 1.08372 | 1.15256 | -.07510 |
| | 2.000 | 2.00000 | 1487.99101 | 654.91200 | 1.06404 | 1.00492 | .89826 | .98510 | 1.09055 | 1.15671 | -.07591 |
| | 4.000 | 2.00000 | 1487.96725 | 654.90228 | 1.07036 | 1.01716 | .91334 | .98989 | 1.09397 | 1.16419 | -.07738 |
| | 6.000 | 2.00000 | 1487.95211 | 654.89340 | 1.07817 | 1.02411 | .92650 | 1.00340 | 1.10142 | 1.16866 | -.07855 |
| | 8.000 | 2.00000 | 1487.95709 | 654.89924 | 1.07872 | 1.03057 | .93606 | 1.01742 | 1.11202 | 1.17260 | -.07974 |
| | 10.000 | 2.00000 | 1487.97005 | 654.89233 | 1.08433 | 1.03634 | .94749 | 1.02853 | 1.11895 | 1.17541 | -.08102 |
| | 12.000 | 2.00000 | 1487.95314 | 654.89236 | 1.08443 | 1.04178 | .95403 | 1.04047 | 1.12431 | 1.17640 | -.08281 |
| | 14.000 | 2.00000 | 1487.92639 | 654.89538 | 1.07989 | 1.04170 | .97044 | 1.04777 | 1.12250 | 1.17440 | -.08338 |
| | 16.000 | 2.00000 | 1487.94725 | 654.89454 | 1.07377 | 1.03770 | .97336 | 1.05309 | 1.12024 | 1.17149 | -.08464 |
| | 18.000 | 2.00000 | 1487.92314 | 654.89592 | 1.06566 | 1.03082 | .97165 | 1.05216 | 1.11666 | 1.16909 | -.08562 |
| | 20.000 | 2.00000 | 1487.96275 | 654.90379 | 1.05241 | 1.01746 | .96313 | 1.05176 | 1.11239 | 1.16344 | -.08635 |
| | 22.000 | 2.00000 | 1487.95439 | 654.90131 | 1.03879 | 1.00632 | .95634 | 1.04931 | 1.10891 | 1.15923 | -.08739 |
| | 24.000 | 2.00000 | 1487.98357 | 654.91432 | 1.02893 | .99311 | .94262 | 1.04210 | 1.10261 | 1.15230 | -.08779 |
| | GRADIENT | .00000 | .16166 | .07349 | .00255 | .00472 | .00545 | .00384 | .00256 | .00291 | -.00057 |

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = 3.000 | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------------|----------|---------|------------|-----------|---------|---------|--------|---------|---------|---------|---------|
| | .000 | 2.00000 | 1939.15904 | 565.47639 | 1.11042 | 1.01034 | .85108 | .98256 | 1.15004 | 1.25595 | -.05688 |
| | 2.000 | 2.00000 | 1940.13321 | 565.76151 | 1.11925 | 1.02209 | .85930 | .98902 | 1.15486 | 1.26398 | -.05755 |
| | 4.000 | 2.00000 | 1939.45256 | 565.59507 | 1.12953 | 1.04227 | .87883 | .99702 | 1.16212 | 1.26927 | -.05809 |
| | 6.000 | 2.00000 | 1939.50688 | 565.60524 | 1.13225 | 1.05103 | .90161 | 1.01461 | 1.17426 | 1.27315 | -.05871 |
| | 8.000 | 2.00000 | 1939.54354 | 565.65913 | 1.13782 | 1.06279 | .91727 | 1.03983 | 1.18774 | 1.28118 | -.05957 |
| | 10.000 | 2.00000 | 1937.17625 | 564.96639 | 1.14346 | 1.06885 | .93679 | 1.05169 | 1.19326 | 1.28227 | -.06012 |
| | 12.000 | 2.00000 | 1938.03195 | 565.24663 | 1.14477 | 1.07773 | .94772 | 1.06951 | 1.19326 | 1.28373 | -.06059 |
| | 14.000 | 2.00000 | 1937.60145 | 565.07145 | 1.13428 | 1.07911 | .96699 | 1.08555 | 1.20023 | 1.28817 | -.06201 |
| | 16.000 | 2.00000 | 1939.26942 | 565.57153 | 1.12741 | 1.07194 | .97228 | 1.09198 | 1.20446 | 1.29403 | -.06280 |
| | 18.000 | 2.00000 | 1936.53473 | 565.35637 | 1.11586 | 1.06167 | .97287 | 1.09608 | 1.19653 | 1.28992 | -.06172 |
| | 20.000 | 2.00000 | 1938.72614 | 565.45771 | 1.10262 | 1.04914 | .96906 | 1.09315 | 1.18965 | 1.27103 | -.06122 |
| | 22.000 | 2.00000 | 1938.94917 | 565.53458 | 1.08294 | 1.03140 | .96630 | 1.08318 | 1.17691 | 1.25165 | -.06133 |
| | 24.000 | 2.00000 | 1938.64468 | 565.62931 | 1.05254 | 1.00366 | .94081 | 1.07228 | 1.16570 | 1.24700 | -.06038 |
| | GRADIENT | .00000 | .07340 | .02967 | .00478 | .00798 | .01694 | .00352 | .00252 | .00333 | -.00020 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 CRBITER + RAKES

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 2.000 ELEVON = .000
A1LRON = .000 BDELAP = -7.170

PN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------|--------|---------|------------|-----------|---------|---------|--------|---------|---------|---------|---------|
| 3.500 | .000 | 2.00000 | 2657.88812 | 532.71109 | 1.12172 | .99001 | .79018 | .93164 | 1.14305 | 1.27881 | -.03917 |
| | 2.000 | 2.00000 | 2657.89584 | 532.73055 | 1.13093 | 1.01291 | .80663 | .94085 | 1.14912 | 1.26849 | -.03509 |
| | 4.000 | 2.00000 | 2657.95579 | 532.64599 | 1.14588 | 1.03505 | .82650 | .95403 | 1.15864 | 1.29432 | -.03062 |
| | 6.000 | 2.00000 | 2658.06708 | 532.66530 | 1.15004 | 1.04360 | .85155 | .97203 | 1.17343 | 1.30395 | -.04019 |
| | 8.000 | 2.00000 | 2658.93280 | 532.62932 | 1.15966 | 1.05960 | .87499 | .99217 | 1.18798 | 1.30944 | -.04019 |
| | 10.000 | 2.00000 | 2659.43529 | 532.66530 | 1.16808 | 1.05496 | .90060 | 1.02268 | 1.20013 | 1.31599 | -.04114 |
| | 12.000 | 2.00000 | 2659.63779 | 532.67244 | 1.16915 | 1.07619 | .92573 | 1.04211 | 1.20649 | 1.32038 | -.04257 |
| | 14.000 | 2.00000 | 2659.85601 | 532.80790 | 1.15053 | 1.07541 | .93485 | 1.05631 | 1.20606 | 1.32228 | -.04311 |
| | 16.000 | 2.00000 | 2659.63051 | 532.66512 | 1.14026 | 1.06788 | .94361 | 1.06905 | 1.20764 | 1.31898 | -.04366 |
| | 18.000 | 2.00000 | 2658.62300 | 532.87227 | 1.12208 | 1.05230 | .94437 | 1.07397 | 1.20268 | 1.31054 | -.04321 |
| | 20.000 | 2.00000 | 2659.19005 | 532.70338 | 1.10124 | 1.03472 | .93501 | 1.07043 | 1.19453 | 1.31123 | -.04321 |
| | 22.000 | 2.00000 | 2658.19005 | 532.76417 | 1.07970 | 1.01495 | .93175 | 1.05924 | 1.18169 | 1.30142 | -.04211 |
| | 24.000 | 2.00000 | 2659.01163 | 532.13458 | 1.05666 | .99975 | .92062 | 1.04215 | 1.16287 | 1.27218 | -.04156 |
| | 26.000 | 2.00000 | 2659.08307 | 532.01603 | 1.00627 | 1.01126 | .90908 | 1.00560 | 1.00395 | 1.00395 | -.00000 |

GRADIENT

(BETH07) (02 AUG 76)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILTRON = .000 BDFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-094)

APC 11-97-87-094 0A161 OR31TER + RAKES

REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. X0
REF = 474.8000 IN. YMRP = .0000 IN. Y0
REF = 335.6900 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .500 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| ALPHA | 5.00000 | 2524.0095 | 566.31805 | 1.00131 | 1.00186 | 1.00112 | 1.00153 | 1.00073 | 1.00371 | 1.01519 |
| | 5.00000 | 2623.93231 | 566.31259 | 1.00138 | 1.00058 | 1.00184 | 1.00108 | 1.00093 | 1.00104 | 1.00947 |
| | 5.00000 | 2624.65535 | 567.49758 | 1.00186 | 1.00224 | 1.00210 | 1.00062 | 1.00194 | 1.00364 | 1.00458 |
| | 5.00000 | 2627.65573 | 567.28098 | 1.00070 | 1.00059 | 1.00224 | 1.00032 | 1.00059 | 1.00097 | 1.00921 |
| | 5.00000 | 2625.01135 | 566.62947 | 1.00159 | 1.00136 | 1.00130 | 1.00200 | 1.00217 | 1.00244 | 1.00940 |
| | 5.00000 | 2621.65388 | 566.65800 | 1.00336 | 1.00286 | 1.00219 | 1.00161 | 1.00271 | 1.00271 | 1.00977 |
| | 5.00000 | 2624.17407 | 566.50737 | 1.00350 | 1.00253 | 1.00219 | 1.00161 | 1.00176 | 1.00190 | 1.00055 |
| | 5.00000 | 2624.35059 | 566.33331 | 1.00341 | 1.00206 | 1.00237 | 1.00136 | 1.00237 | 1.00197 | 1.00042 |
| | 5.00000 | 2624.29338 | 566.51554 | 1.00301 | 1.00001 | 1.00224 | 1.00110 | 1.00180 | 1.00199 | 1.00050 |
| | 5.00000 | 2627.18726 | 567.20239 | 1.00173 | 1.00001 | 1.00188 | 1.00170 | 1.00199 | 1.00119 | 1.00003 |
| | 5.00000 | 2627.61424 | 567.25336 | 1.00130 | 1.00078 | 1.00188 | 1.00170 | 1.00199 | 1.00119 | 1.00003 |
| | 5.00000 | 2621.04264 | 566.53399 | 1.00130 | 1.00078 | 1.00188 | 1.00170 | 1.00199 | 1.00119 | 1.00003 |
| | 5.00000 | 2626.90583 | 566.72034 | 1.00130 | 1.00078 | 1.00188 | 1.00170 | 1.00199 | 1.00119 | 1.00003 |
| GRADIENT | 1.00000 | 1.00000 | 1.00000 | 1.00014 | 1.00009 | 1.00025 | 1.00023 | 1.00030 | 1.00073 | 1.00265 |

RVL = 4.23 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = .900 | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| ALPHA | 5.00000 | 2111.49715 | 662.97934 | 1.00037 | 1.00047 | 1.00099 | 1.00067 | 1.00024 | 1.00055 | 1.00085 |
| | 5.00000 | 2115.43283 | 664.65109 | 1.00031 | 1.00122 | 1.00077 | 1.00171 | 1.00175 | 1.00159 | 1.00069 |
| | 5.00000 | 2117.10139 | 665.37139 | 1.00039 | 1.00073 | 1.00093 | 1.00042 | 1.00130 | 1.00057 | 1.00091 |
| | 5.00000 | 2117.79214 | 664.41898 | 1.00002 | 1.00035 | 1.00053 | 1.00014 | 1.00057 | 1.00053 | 1.00059 |
| | 5.00000 | 2119.59936 | 662.59323 | 1.00125 | 1.00144 | 1.00153 | 1.00126 | 1.00094 | 1.00184 | 1.00054 |
| | 5.00000 | 2116.59933 | 665.03103 | 1.00183 | 1.00063 | 1.00090 | 1.00036 | 1.00087 | 1.00104 | 1.00076 |
| | 5.00000 | 2117.71000 | 665.14941 | 1.00004 | 1.00041 | 1.00024 | 1.00012 | 1.00079 | 1.00079 | 1.00079 |
| | 5.00000 | 2112.29323 | 663.57808 | 1.00037 | 1.00127 | 1.00094 | 1.00161 | 1.00192 | 1.00184 | 1.00058 |
| | 5.00000 | 2115.00735 | 664.67287 | 1.00038 | 1.00038 | 1.00019 | 1.00045 | 1.00192 | 1.00061 | 1.00061 |
| | 5.00000 | 2115.76746 | 664.62280 | 1.00033 | 1.00032 | 1.00057 | 1.00049 | 1.00095 | 1.00033 | 1.00043 |
| | 5.00000 | 2116.11169 | 661.73282 | 1.00059 | 1.00051 | 1.00090 | 1.00021 | 1.00058 | 1.00044 | 1.00034 |
| | 5.00000 | 2112.37099 | 662.59114 | 1.00126 | 1.00163 | 1.00122 | 1.00079 | 1.00050 | 1.00050 | 1.00034 |
| | 5.00000 | 2116.71766 | 663.27894 | 1.00032 | 1.00165 | 1.00098 | 1.00077 | 1.00095 | 1.00035 | 1.00035 |
| GRADIENT | 1.00000 | 1.00000 | 1.00000 | 1.00013 | 1.00019 | 1.00021 | 1.00031 | 1.00031 | 1.00070 | 1.00061 |

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(BET407) (02 AUG 75)

ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2990.000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

MACH = 1.200 PN/L = 4.27 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|---------|------------|------------|-------|---------|---------|--------|---------|---------|---------|---------|
| 5.00000 | 2011.53369 | 1167.44115 | | 1.00018 | .99974 | .99850 | 1.00001 | 1.00075 | 1.00125 | .99389 |
| 5.00000 | 2039.60754 | 1166.59583 | | .99988 | 1.00007 | .99888 | 1.00007 | 1.00059 | 1.00155 | .98916 |
| 5.00000 | 2010.79175 | 1165.93431 | | 1.00136 | 1.00020 | .99952 | 1.00031 | 1.00049 | 1.00202 | .99561 |
| 5.00000 | 2013.55270 | 1168.22992 | | 1.00111 | 1.00111 | .99933 | 1.00135 | 1.00229 | 1.00262 | 1.00156 |
| 5.00000 | 2013.08412 | 1169.01431 | | 1.00113 | 1.00094 | .99980 | 1.00124 | 1.00220 | 1.00257 | 1.00233 |
| 5.00000 | 2013.09351 | 1168.05627 | | 1.00044 | 1.00037 | .99955 | 1.00148 | 1.00230 | 1.00250 | 1.00457 |
| 5.00000 | 2014.42097 | 1168.72549 | | .99994 | 1.00000 | .99937 | 1.00094 | 1.00137 | 1.00233 | 1.00274 |
| 5.00000 | 2014.72244 | 1168.76085 | | .99975 | .99796 | .99935 | 1.00094 | 1.00137 | 1.00233 | 1.00274 |
| 5.00000 | 2015.26015 | 1169.76085 | | .99938 | .99615 | .99769 | 1.00030 | 1.00125 | 1.00206 | 1.00744 |
| 5.00000 | 2016.34586 | 1170.34586 | | .99370 | .93509 | .95507 | .99975 | 1.00150 | 1.00231 | 1.01452 |
| 5.00000 | 2016.09566 | 1170.25401 | | .99067 | .99226 | .95321 | .99890 | 1.00129 | 1.00155 | 1.01287 |
| 5.00000 | 2016.50551 | 1169.47824 | | .98463 | .98696 | .96797 | .99732 | 1.00026 | 1.00063 | 1.00987 |
| 5.00000 | 2016.10297 | 1170.21298 | | .97295 | .97750 | .97895 | .99355 | .93744 | .99790 | 1.01115 |
| 5.00000 | 2016.13543 | 1170.12671 | | .99029 | .99012 | .99023 | .99008 | .99018 | .99009 | 1.00233 |

MACH = 1.400 PN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|---------|--------------|------------|-------|--------|--------|--------|---------|---------|---------|---------|
| 5.00000 | 2051.494971 | 1320.72128 | | .99320 | .98495 | .98832 | 1.00517 | 1.01097 | 1.01765 | 1.03347 |
| 5.00000 | 2052.59505 | 1321.30142 | | .99444 | .98678 | .99125 | 1.00602 | 1.00955 | 1.01629 | 1.02652 |
| 5.00000 | 2143.7286 | 1317.34783 | | .99523 | .99813 | .99260 | 1.00895 | 1.01265 | 1.01854 | 1.03354 |
| 5.00000 | 2043.72655 | 1316.49332 | | .99613 | .99035 | .98956 | 1.00935 | 1.01211 | 1.0198 | 1.03093 |
| 5.00000 | 2039.74539 | 1313.94118 | | .99419 | .98766 | .98703 | 1.00660 | 1.01469 | 1.01713 | 1.0310 |
| 5.00000 | 2037.38092 | 1313.19947 | | .99352 | .99708 | .96772 | 1.00990 | 1.01311 | 1.01759 | 1.0319 |
| 5.00000 | 2038.50205 | 1313.77788 | | .99356 | .98528 | .96983 | 1.01032 | 1.01359 | 1.01824 | 1.0309 |
| 5.00000 | 2042.09929 | 1317.01324 | | .99036 | .98390 | .96597 | 1.01222 | 1.01503 | 1.01835 | 1.03232 |
| 5.00000 | 2042.09944 | 1315.78711 | | .98572 | .98053 | .97544 | 1.01242 | 1.01445 | 1.01911 | 1.03009 |
| 5.00000 | 2039.01199 | 1309.01199 | | .97789 | .97192 | .96498 | 1.00991 | 1.01196 | 1.01616 | 1.0311 |
| 5.00000 | 2032.02007 | 1310.48513 | | .97213 | .96648 | .96828 | 1.00826 | 1.00955 | 1.01459 | 1.0311 |
| 5.00000 | 2032.45825 | 1312.35988 | | .96876 | .96208 | .96925 | 1.00201 | 1.00745 | 1.01291 | 1.0311 |
| 5.00000 | 2032.60015 | 1304.35728 | | .95551 | .95085 | .94416 | .99623 | 1.00211 | 1.00701 | 1.0311 |
| 5.00000 | 2032.1156897 | 1304.84341 | | .99051 | .99080 | .99107 | .99095 | .99092 | .99092 | 1.00232 |

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILRON = .000 BSFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
SREF = 936.8800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RM/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | F T3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|--------|------------|------------|--------|--------|---------|---------|---------|---------|---------|
| 1.000 | .000 | 5.0000 | 1561.82259 | 1032.75972 | .98034 | .97252 | .95978 | 1.01380 | 1.02844 | 1.03705 | -.11245 |
| 2.000 | .000 | 5.0000 | 1563.04628 | 1033.55905 | .98491 | .97606 | .96154 | 1.01522 | 1.02925 | 1.03772 | -.11288 |
| 3.000 | .000 | 5.0000 | 1563.18922 | 1033.59172 | .98973 | .97949 | .96831 | 1.01787 | 1.03233 | 1.03927 | -.11485 |
| 4.000 | .000 | 5.0000 | 1563.48520 | 1033.78656 | .99325 | .98115 | .97124 | 1.02171 | 1.03269 | 1.04122 | -.11543 |
| 5.000 | .000 | 5.0000 | 1567.37243 | 1036.32259 | .99293 | .98730 | .97527 | 1.02839 | 1.03851 | 1.04732 | -.11859 |
| 6.000 | .000 | 5.0000 | 1572.23665 | 1039.55555 | .99014 | .98520 | .97407 | 1.02810 | 1.03704 | 1.04535 | -.11432 |
| 7.000 | .000 | 5.0000 | 1570.17735 | 1038.18909 | .99525 | .98716 | .97121 | 1.02855 | 1.03704 | 1.04408 | -.11913 |
| 8.000 | .000 | 5.0000 | 1568.15364 | 1036.87173 | .97736 | .97816 | .95330 | 1.03223 | 1.03928 | 1.04467 | -.12343 |
| 9.000 | .000 | 5.0000 | 1568.83318 | 1037.16893 | .96954 | .96995 | .95137 | 1.02930 | 1.03721 | 1.04464 | -.12525 |
| 10.000 | .000 | 5.0000 | 1568.93566 | 1037.25586 | .96654 | .95736 | .94422 | 1.02805 | 1.03951 | 1.04545 | -.12565 |
| 15.000 | .000 | 5.0000 | 1568.97487 | 1037.38345 | .96033 | .95365 | .93410 | 1.02977 | 1.04141 | 1.04566 | -.13275 |
| 20.000 | .000 | 5.0000 | 1571.11673 | 1039.81490 | .94543 | .94325 | .92596 | 1.02835 | 1.04287 | 1.04297 | -.13714 |
| 25.000 | .000 | 5.0000 | 1571.43959 | 1038.99330 | .93021 | .92782 | .91288 | 1.02530 | 1.03057 | 1.03601 | -.14670 |
| 30.000 | .000 | 5.0000 | 1571.33655 | 1038.20800 | .00235 | .00174 | .00213 | 1.02530 | 1.03057 | 1.03601 | -.14670 |
| GRADIENT | | | | | | | | .00052 | .00097 | .00058 | -.00060 |

RM/L = 3.04 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|--------|------------|------------|--------|--------|--------|---------|---------|---------|---------|
| 1.000 | .000 | 5.0000 | 1555.65655 | 1070.81854 | .97068 | .95303 | .92902 | 1.03315 | 1.05769 | 1.07508 | -.13241 |
| 2.000 | .000 | 5.0000 | 1555.87311 | 1070.95529 | .97189 | .95719 | .93190 | 1.03838 | 1.06006 | 1.07676 | -.13246 |
| 3.000 | .000 | 5.0000 | 1555.81548 | 1070.91904 | .97818 | .96132 | .93802 | 1.04056 | 1.06355 | 1.07934 | -.13047 |
| 4.000 | .000 | 5.0000 | 1555.53560 | 1071.38103 | .97893 | .96635 | .94458 | 1.04338 | 1.06403 | 1.07940 | -.13238 |
| 5.000 | .000 | 5.0000 | 1555.73343 | 1070.86971 | .98111 | .96838 | .94387 | 1.04990 | 1.06691 | 1.08206 | -.13019 |
| 6.000 | .000 | 5.0000 | 1555.74200 | 1070.87334 | .97904 | .96631 | .94763 | 1.05157 | 1.06650 | 1.08378 | -.13104 |
| 7.000 | .000 | 5.0000 | 1555.84193 | 1070.29554 | .97875 | .96445 | .94950 | 1.05157 | 1.06643 | 1.08356 | -.13461 |
| 8.000 | .000 | 5.0000 | 1555.26350 | 1071.19195 | .97272 | .96555 | .92255 | 1.05571 | 1.06643 | 1.08356 | -.13461 |
| 9.000 | .000 | 5.0000 | 1555.23567 | 1071.06336 | .95853 | .95882 | .92221 | 1.05480 | 1.06913 | 1.08191 | -.14043 |
| 10.000 | .000 | 5.0000 | 1555.22222 | 1070.33005 | .95515 | .94932 | .92323 | 1.05492 | 1.06693 | 1.08099 | -.14043 |
| 15.000 | .000 | 5.0000 | 1555.33047 | 1070.18747 | .95007 | .94396 | .91593 | 1.05120 | 1.06345 | 1.07646 | -.14575 |
| 20.000 | .000 | 5.0000 | 1555.71579 | 1070.83337 | .94844 | .94384 | .92298 | 1.04592 | 1.06990 | 1.07088 | -.14792 |
| 25.000 | .000 | 5.0000 | 1555.66719 | 1071.45531 | .93102 | .91441 | .90771 | 1.04235 | 1.06403 | 1.06651 | -.15180 |
| 30.000 | .000 | 5.0000 | 1555.66719 | 1071.45531 | .00197 | .00207 | .00225 | 1.04235 | 1.06403 | 1.06651 | -.15180 |
| GRADIENT | | | | | | | | .00165 | .00146 | .00165 | -.00048 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + RAKES

(02 AUG 75)

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 ALPHA = .000 BCFLAP = -7.170

REFERENCE DATA

SEEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.6000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

MACH = 2.000 RN/L = 3.05 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------|-------|---------|------------|------------|--------|--------|--------|---------|---------|---------|---------|
| 2.000 | .000 | 5.00000 | 1834.9384 | 1087.03931 | .95083 | .91979 | .87925 | 1.03940 | 1.11495 | 1.18044 | 1.24743 |
| 2.000 | .000 | 5.00000 | 1830.93913 | 1094.73219 | .95749 | .92808 | .88826 | 1.04166 | 1.11784 | 1.18322 | 1.25021 |
| 2.000 | .000 | 5.00000 | 1831.46227 | 1085.07599 | .96093 | .93657 | .89624 | 1.04501 | 1.12120 | 1.18658 | 1.25359 |
| 2.000 | .000 | 5.00000 | 1831.73527 | 1082.25499 | .96870 | .94113 | .89629 | 1.05093 | 1.12671 | 1.19209 | 1.25910 |
| 2.000 | .000 | 5.00000 | 1834.07181 | 1086.67477 | .97132 | .94554 | .90268 | 1.05661 | 1.13261 | 1.19799 | 1.26461 |
| 2.000 | .000 | 5.00000 | 1836.11595 | 1087.61444 | .98008 | .94555 | .90611 | 1.06399 | 1.13933 | 1.20471 | 1.27012 |
| 2.000 | .000 | 5.00000 | 1836.11419 | 1087.80734 | .97464 | .94523 | .91244 | 1.06833 | 1.14324 | 1.20858 | 1.27399 |
| 2.000 | .000 | 5.00000 | 1841.38282 | 1092.93960 | .97186 | .94639 | .91463 | 1.07131 | 1.14619 | 1.21153 | 1.27686 |
| 2.000 | .000 | 5.00000 | 1843.65311 | 1093.15959 | .96700 | .94235 | .92270 | 1.07427 | 1.14911 | 1.21445 | 1.27972 |
| 2.000 | .000 | 5.00000 | 1843.93156 | 1093.15229 | .96288 | .93465 | .92855 | 1.07723 | 1.15203 | 1.21739 | 1.28258 |
| 2.000 | .000 | 5.00000 | 1846.65546 | 1093.65639 | .95065 | .92857 | .92857 | 1.08019 | 1.15495 | 1.22031 | 1.28544 |
| 2.000 | .000 | 5.00000 | 1847.52995 | 1094.65019 | .94056 | .91742 | .92364 | 1.08315 | 1.15787 | 1.22323 | 1.28830 |
| 2.000 | .000 | 5.00000 | 1848.35293 | 1095.35625 | .92437 | .90846 | .92774 | 1.08611 | 1.16079 | 1.22615 | 1.29116 |
| 2.000 | .000 | 5.00000 | 1848.86914 | 1095.49091 | .90244 | .90419 | .92325 | 1.08907 | 1.16371 | 1.22907 | 1.29402 |

MACH = 2.250 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | CCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------|-------|---------|------------|------------|--------|--------|--------|---------|---------|---------|---------|
| 2.250 | .000 | 5.00000 | 2059.36877 | 1069.00958 | .91115 | .84713 | .84713 | 1.06107 | 1.13436 | 1.20765 | 1.28094 |
| 2.250 | .000 | 5.00000 | 2059.48529 | 1068.55612 | .92298 | .85685 | .85685 | 1.06397 | 1.13727 | 1.21057 | 1.28380 |
| 2.250 | .000 | 5.00000 | 2059.37249 | 1069.95139 | .98026 | .86456 | .86456 | 1.06684 | 1.14017 | 1.21347 | 1.28666 |
| 2.250 | .000 | 5.00000 | 2059.45521 | 1069.05426 | .98089 | .87067 | .87067 | 1.06971 | 1.14308 | 1.21638 | 1.28952 |
| 2.250 | .000 | 5.00000 | 2059.47526 | 1068.53333 | .98714 | .88714 | .88714 | 1.07258 | 1.14599 | 1.21929 | 1.29238 |
| 2.250 | .000 | 5.00000 | 2059.41499 | 1069.95778 | .99275 | .89275 | .89275 | 1.07545 | 1.14890 | 1.22220 | 1.29524 |
| 2.250 | .000 | 5.00000 | 2059.33550 | 1069.67758 | .99522 | .90141 | .90141 | 1.07831 | 1.15181 | 1.22511 | 1.29810 |
| 2.250 | .000 | 5.00000 | 2059.33550 | 1069.47455 | .99601 | .90154 | .90154 | 1.08118 | 1.15472 | 1.22802 | 1.30096 |
| 2.250 | .000 | 5.00000 | 2059.35720 | 1069.70092 | .98900 | .89584 | .89584 | 1.08405 | 1.15763 | 1.23093 | 1.30382 |
| 2.250 | .000 | 5.00000 | 2059.63272 | 1069.13972 | .97891 | .89011 | .89011 | 1.08692 | 1.16054 | 1.23384 | 1.30668 |
| 2.250 | .000 | 5.00000 | 2059.91166 | 1069.78292 | .96512 | .87268 | .87268 | 1.08979 | 1.16345 | 1.23675 | 1.30954 |
| 2.250 | .000 | 5.00000 | 2059.91166 | 1069.65547 | .95474 | .90150 | .90150 | 1.09266 | 1.16636 | 1.23966 | 1.31240 |
| 2.250 | .000 | 5.00000 | 2059.12959 | 1069.65547 | .93416 | .90371 | .90371 | 1.09553 | 1.16927 | 1.24257 | 1.31526 |
| 2.250 | .000 | 5.00000 | 2059.10957 | 1069.40425 | .90447 | .90536 | .90536 | 1.09840 | 1.17218 | 1.24548 | 1.31812 |

TABULATED DATA - 0A161 (ARC 11-97-87-09+)
ARC 11-97-87-09+ 0A161 CRBITER + RAKES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
ALIRON = .000 BCFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

MACH = 2.500 PN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|---------|------------|-----------|---------|--------|--------|---------|---------|---------|---------|
| .000 | 5.00000 | 1487.41809 | 654.65117 | .95505 | .90431 | .81831 | 1.05638 | 1.16414 | 1.22340 | -.07237 |
| 2.000 | 5.00000 | 1487.53204 | 654.70170 | .97449 | .91365 | .82734 | 1.06341 | 1.16957 | 1.23173 | -.07404 |
| 4.000 | 5.00000 | 1487.58735 | 654.72614 | .97936 | .92392 | .83765 | 1.06810 | 1.17285 | 1.23712 | -.07555 |
| 6.000 | 5.00000 | 1487.59553 | 654.72616 | .98335 | .93392 | .84570 | 1.07264 | 1.17625 | 1.24115 | -.07634 |
| 8.000 | 5.00000 | 1487.60661 | 654.73832 | .98734 | .94272 | .85229 | 1.07654 | 1.17925 | 1.24455 | -.07690 |
| 10.000 | 5.00000 | 1487.63736 | 654.75346 | .99132 | .95307 | .86371 | 1.08045 | 1.18225 | 1.24737 | -.07737 |
| 12.000 | 5.00000 | 1487.63515 | 654.75260 | .99335 | .95354 | .86995 | 1.08431 | 1.18533 | 1.25017 | -.07776 |
| 14.000 | 5.00000 | 1487.64062 | 654.75657 | 1.00231 | .95950 | .87992 | 1.12157 | 1.19100 | 1.25341 | -.08119 |
| 16.000 | 5.00000 | 1487.63156 | 654.75650 | .99487 | .95430 | .88439 | 1.12722 | 1.19755 | 1.25069 | -.08131 |
| 18.000 | 5.00000 | 1487.64584 | 654.76619 | .99622 | .94782 | .89190 | 1.12669 | 1.19619 | 1.24778 | -.08567 |
| 20.000 | 5.00000 | 1487.62817 | 654.74584 | .99822 | .94822 | .89590 | 1.12623 | 1.19520 | 1.24709 | -.08590 |
| 22.000 | 5.00000 | 1487.61235 | 654.74979 | .99516 | .91855 | .89039 | 1.12149 | 1.18935 | 1.23791 | -.08722 |
| 24.000 | 5.00000 | 1487.57354 | 654.73773 | .99319 | .89948 | .88341 | 1.11799 | 1.18342 | 1.23256 | -.08820 |
| GRADIENT | .00000 | .04233 | .01874 | .00373 | .00468 | .00464 | .00333 | .00348 | .00343 | -.00082 |

MACH = 3.000 PN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

| ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|---------|------------|-----------|---------|--------|--------|---------|---------|---------|---------|
| .000 | 5.00000 | 1939.46461 | 565.46770 | .95246 | .85897 | .74792 | 1.03582 | 1.25504 | 1.35390 | -.05335 |
| 2.000 | 5.00000 | 1937.72949 | 564.97363 | .97494 | .88199 | .75662 | 1.03990 | 1.25814 | 1.35663 | -.05519 |
| 4.000 | 5.00000 | 1939.05091 | 565.06321 | .97390 | .89353 | .77110 | 1.04447 | 1.26200 | 1.35714 | -.05631 |
| 6.000 | 5.00000 | 1938.52211 | 565.20436 | .97790 | .91147 | .78155 | 1.04777 | 1.26536 | 1.35937 | -.05737 |
| 8.000 | 5.00000 | 1939.14912 | 565.16261 | 1.00573 | .92857 | .80335 | 1.04467 | 1.26444 | 1.35660 | -.05826 |
| 10.000 | 5.00000 | 1938.11229 | 565.17573 | 1.01181 | .93633 | .81582 | 1.04740 | 1.26666 | 1.35866 | -.05936 |
| 12.000 | 5.00000 | 1937.93176 | 565.12921 | 1.01522 | .94650 | .83000 | 1.04914 | 1.26811 | 1.35975 | -.06045 |
| 14.000 | 5.00000 | 1938.21223 | 565.27744 | 1.01677 | .95335 | .83935 | 1.04913 | 1.26811 | 1.35975 | -.06045 |
| 16.000 | 5.00000 | 1938.80711 | 565.48102 | 1.00394 | .95001 | .84365 | 1.04913 | 1.26811 | 1.35975 | -.06045 |
| 18.000 | 5.00000 | 1938.64451 | 565.48442 | .99330 | .94244 | .84365 | 1.04913 | 1.26811 | 1.35975 | -.06045 |
| 20.000 | 5.00000 | 1938.61358 | 565.48102 | .99282 | .94244 | .84365 | 1.04913 | 1.26811 | 1.35975 | -.06045 |
| 22.000 | 5.00000 | 1938.80371 | 565.50747 | .95657 | .90355 | .82678 | 1.04913 | 1.26811 | 1.35975 | -.06045 |
| 24.000 | 5.00000 | 1938.19142 | 565.34034 | .93331 | .88337 | .81402 | 1.04913 | 1.26811 | 1.35975 | -.06045 |
| GRADIENT | .00000 | -.35345 | -.10112 | .00710 | .00742 | .00680 | .00393 | .00369 | .00348 | -.00034 |

(SETH07) (02 AUG 76)

ARC 11-97-87-09+ 0A161 ORBITER + RAKES

REFERENCE DATA

SREF = 2690.000 SQ.FT. YMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRB = 0000 IN. YO
 BREF = 935.6000 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0000

BETA = 5.000 ELEVON = .000
 AILRON = .000 BCLAP = -7.170

RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 3.500

| ALPHA | BETA | PT | OCOMP | PT11/OC | PT12/OC | PT3/OC | PT4/OC | PT5/OC | PT5/OC | PT7/OC |
|-------|---------|-------------|-----------|---------|---------|--------|---------|---------|---------|----------|
| 0.000 | 5.00000 | 2983.02945 | 535.72283 | .93979 | .82221 | .69165 | 1.06732 | 1.28770 | 1.41487 | -0.36653 |
| 0.000 | 5.00000 | 2692.76693 | 535.67736 | .95683 | .83837 | .69055 | 1.06738 | 1.28284 | 1.42660 | -0.37993 |
| 0.000 | 5.00000 | 2402.50401 | 535.63189 | .97382 | .85419 | .70836 | 1.06150 | 1.30459 | 1.43507 | -0.38998 |
| 0.000 | 5.00000 | 2112.24109 | 535.58642 | .99077 | .87001 | .71659 | 1.05970 | 1.31530 | 1.44265 | -0.39832 |
| 0.000 | 5.00000 | 1822.00000 | 535.54095 | .99507 | .87469 | .72445 | 1.05970 | 1.32600 | 1.45021 | -0.40666 |
| 0.000 | 5.00000 | 1531.75900 | 535.49548 | 1.00179 | .89057 | .76019 | 1.05333 | 1.33670 | 1.45989 | -0.41500 |
| 0.000 | 5.00000 | 1241.51800 | 535.45001 | 1.00328 | .91842 | .77854 | 1.04695 | 1.34740 | 1.46957 | -0.42334 |
| 0.000 | 5.00000 | 951.27700 | 535.40454 | 1.00252 | .92258 | .78737 | 1.03826 | 1.35810 | 1.47925 | -0.43168 |
| 0.000 | 5.00000 | 661.03600 | 535.35907 | .99467 | .92431 | .79666 | 1.02957 | 1.36880 | 1.48890 | -0.44002 |
| 0.000 | 5.00000 | 370.79500 | 535.31360 | .98738 | .91515 | .79513 | 1.02088 | 1.37950 | 1.49855 | -0.44836 |
| 0.000 | 5.00000 | 80.55400 | 535.26813 | .98009 | .90599 | .79359 | 1.01219 | 1.39020 | 1.50820 | -0.45670 |
| 0.000 | 5.00000 | -109.68700 | 535.22266 | .97280 | .89683 | .79206 | 1.00350 | 1.40090 | 1.51785 | -0.46504 |
| 0.000 | 5.00000 | -409.94600 | 535.17719 | .96551 | .88767 | .79053 | 1.00000 | 1.41160 | 1.52750 | -0.47338 |
| 0.000 | 5.00000 | -710.20500 | 535.13172 | .95822 | .87851 | .78900 | 1.00000 | 1.42230 | 1.53715 | -0.48172 |
| 0.000 | 5.00000 | -1010.46400 | 535.08625 | .95093 | .86935 | .78747 | 1.00000 | 1.43300 | 1.54680 | -0.49006 |
| 0.000 | 5.00000 | -1310.72300 | 535.04078 | .94364 | .86019 | .78594 | 1.00000 | 1.44370 | 1.55645 | -0.49840 |
| 0.000 | 5.00000 | -1610.98200 | 535.00000 | .93635 | .85103 | .78441 | 1.00000 | 1.45440 | 1.56610 | -0.50674 |
| 0.000 | 5.00000 | -1911.24100 | 535.00000 | .92906 | .84187 | .78288 | 1.00000 | 1.46510 | 1.57575 | -0.51508 |
| 0.000 | 5.00000 | -2211.50000 | 535.00000 | .92177 | .83271 | .78135 | 1.00000 | 1.47580 | 1.58540 | -0.52342 |
| 0.000 | 5.00000 | -2511.75900 | 535.00000 | .91448 | .82355 | .77982 | 1.00000 | 1.48650 | 1.59505 | -0.53176 |
| 0.000 | 5.00000 | -2812.01800 | 535.00000 | .90719 | .81439 | .77829 | 1.00000 | 1.49720 | 1.60470 | -0.54010 |
| 0.000 | 5.00000 | -3112.27700 | 535.00000 | .90000 | .80523 | .77676 | 1.00000 | 1.50790 | 1.61435 | -0.54844 |
| 0.000 | 5.00000 | -3412.53600 | 535.00000 | .89271 | .79607 | .77523 | 1.00000 | 1.51860 | 1.62400 | -0.55678 |
| 0.000 | 5.00000 | -3712.79500 | 535.00000 | .88542 | .78691 | .77370 | 1.00000 | 1.52930 | 1.63365 | -0.56512 |
| 0.000 | 5.00000 | -4013.05400 | 535.00000 | .87813 | .77775 | .77217 | 1.00000 | 1.54000 | 1.64330 | -0.57346 |
| 0.000 | 5.00000 | -4313.31300 | 535.00000 | .87084 | .76859 | .77064 | 1.00000 | 1.55070 | 1.65300 | -0.58180 |
| 0.000 | 5.00000 | -4613.57200 | 535.00000 | .86355 | .75943 | .76911 | 1.00000 | 1.56140 | 1.66265 | -0.59014 |
| 0.000 | 5.00000 | -4913.83100 | 535.00000 | .85626 | .75027 | .76758 | 1.00000 | 1.57210 | 1.67230 | -0.59848 |
| 0.000 | 5.00000 | -5214.09000 | 535.00000 | .84897 | .74111 | .76605 | 1.00000 | 1.58280 | 1.68200 | -0.60682 |
| 0.000 | 5.00000 | -5514.34900 | 535.00000 | .84168 | .73195 | .76452 | 1.00000 | 1.59350 | 1.69165 | -0.61516 |
| 0.000 | 5.00000 | -5814.60800 | 535.00000 | .83439 | .72279 | .76300 | 1.00000 | 1.60420 | 1.70130 | -0.62350 |

TABULATED DATA - 0A16: (ARC 11-97-87-094)
 ARC 11-97-87-094 0A161 CRBITTER + PROBES

PARAMETRIC DATA

BETA = -6.000 ELEVON = .000
 ALPHA = .000 SDFLAP = -7.170

REFERENCE DATA

REF = 2500.0000 SQ.FT. XREF = 1076.6900 IN. X0
 REF = 474.8000 IN. YREF = .0000 IN. Y0
 REF = 936.6500 IN. ZREF = 375.0000 IN. Z0
 SCALE = .0300

RVL = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | COMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|-------|---------|------------|-----------|--------|--------|---------|---------|---------|---------|---------|
| 1.305 | -6.0000 | 4123.09033 | 250.03927 | .03423 | .02134 | -1.8633 | -1.8633 | -1.8633 | -1.8633 | -1.8633 |
| 1.300 | -6.0000 | 4124.91620 | 249.43683 | .04499 | .04937 | -1.7659 | -1.7659 | -1.7659 | -1.7659 | -1.7659 |
| 1.300 | -6.0000 | 4124.93104 | 249.43161 | .04270 | .04223 | -1.7919 | -1.7919 | -1.7919 | -1.7919 | -1.7919 |
| 1.300 | -6.0000 | 4124.93590 | 249.43327 | .04079 | .04083 | -1.8179 | -1.8179 | -1.8179 | -1.8179 | -1.8179 |
| 1.300 | -6.0000 | 4124.93999 | 249.42844 | .03977 | .03966 | -1.8439 | -1.8439 | -1.8439 | -1.8439 | -1.8439 |
| 1.300 | -6.0000 | 4124.94399 | 249.42361 | .03874 | .03863 | -1.8699 | -1.8699 | -1.8699 | -1.8699 | -1.8699 |
| 1.300 | -6.0000 | 4124.94799 | 249.41878 | .03771 | .03760 | -1.8959 | -1.8959 | -1.8959 | -1.8959 | -1.8959 |
| 1.300 | -6.0000 | 4124.95199 | 249.41395 | .03668 | .03657 | -1.9219 | -1.9219 | -1.9219 | -1.9219 | -1.9219 |
| 1.300 | -6.0000 | 4124.95599 | 249.40912 | .03565 | .03554 | -1.9479 | -1.9479 | -1.9479 | -1.9479 | -1.9479 |
| 1.300 | -6.0000 | 4124.95999 | 249.40429 | .03462 | .03451 | -1.9739 | -1.9739 | -1.9739 | -1.9739 | -1.9739 |
| 1.300 | -6.0000 | 4124.96399 | 249.39946 | .03359 | .03348 | -1.9999 | -1.9999 | -1.9999 | -1.9999 | -1.9999 |
| 1.300 | -6.0000 | 4124.96799 | 249.39463 | .03256 | .03245 | -2.0259 | -2.0259 | -2.0259 | -2.0259 | -2.0259 |
| 1.300 | -6.0000 | 4124.97199 | 249.38980 | .03153 | .03142 | -2.0519 | -2.0519 | -2.0519 | -2.0519 | -2.0519 |
| 1.300 | -6.0000 | 4124.97599 | 249.38497 | .03050 | .03039 | -2.0779 | -2.0779 | -2.0779 | -2.0779 | -2.0779 |
| 1.300 | -6.0000 | 4124.97999 | 249.38014 | .02947 | .02936 | -2.1039 | -2.1039 | -2.1039 | -2.1039 | -2.1039 |
| 1.300 | -6.0000 | 4124.98399 | 249.37531 | .02844 | .02833 | -2.1299 | -2.1299 | -2.1299 | -2.1299 | -2.1299 |
| 1.300 | -6.0000 | 4124.98799 | 249.37048 | .02741 | .02730 | -2.1559 | -2.1559 | -2.1559 | -2.1559 | -2.1559 |
| 1.300 | -6.0000 | 4124.99199 | 249.36565 | .02638 | .02627 | -2.1819 | -2.1819 | -2.1819 | -2.1819 | -2.1819 |
| 1.300 | -6.0000 | 4124.99599 | 249.36082 | .02535 | .02524 | -2.2079 | -2.2079 | -2.2079 | -2.2079 | -2.2079 |
| 1.300 | -6.0000 | 4124.99999 | 249.35599 | .02432 | .02421 | -2.2339 | -2.2339 | -2.2339 | -2.2339 | -2.2339 |
| 1.300 | -6.0000 | 4125.00399 | 249.35116 | .02329 | .02318 | -2.2599 | -2.2599 | -2.2599 | -2.2599 | -2.2599 |
| 1.300 | -6.0000 | 4125.00799 | 249.34633 | .02226 | .02215 | -2.2859 | -2.2859 | -2.2859 | -2.2859 | -2.2859 |
| 1.300 | -6.0000 | 4125.01199 | 249.34150 | .02123 | .02112 | -2.3119 | -2.3119 | -2.3119 | -2.3119 | -2.3119 |
| 1.300 | -6.0000 | 4125.01599 | 249.33667 | .02020 | .02009 | -2.3379 | -2.3379 | -2.3379 | -2.3379 | -2.3379 |
| 1.300 | -6.0000 | 4125.01999 | 249.33184 | .01917 | .01906 | -2.3639 | -2.3639 | -2.3639 | -2.3639 | -2.3639 |
| 1.300 | -6.0000 | 4125.02399 | 249.32701 | .01814 | .01803 | -2.3899 | -2.3899 | -2.3899 | -2.3899 | -2.3899 |
| 1.300 | -6.0000 | 4125.02799 | 249.32218 | .01711 | .01700 | -2.4159 | -2.4159 | -2.4159 | -2.4159 | -2.4159 |
| 1.300 | -6.0000 | 4125.03199 | 249.31735 | .01608 | .01597 | -2.4419 | -2.4419 | -2.4419 | -2.4419 | -2.4419 |
| 1.300 | -6.0000 | 4125.03599 | 249.31252 | .01505 | .01494 | -2.4679 | -2.4679 | -2.4679 | -2.4679 | -2.4679 |
| 1.300 | -6.0000 | 4125.03999 | 249.30769 | .01402 | .01391 | -2.4939 | -2.4939 | -2.4939 | -2.4939 | -2.4939 |
| 1.300 | -6.0000 | 4125.04399 | 249.30286 | .01299 | .01288 | -2.5199 | -2.5199 | -2.5199 | -2.5199 | -2.5199 |
| 1.300 | -6.0000 | 4125.04799 | 249.29803 | .01196 | .01185 | -2.5459 | -2.5459 | -2.5459 | -2.5459 | -2.5459 |
| 1.300 | -6.0000 | 4125.05199 | 249.29320 | .01093 | .01082 | -2.5719 | -2.5719 | -2.5719 | -2.5719 | -2.5719 |
| 1.300 | -6.0000 | 4125.05599 | 249.28837 | .00990 | .00979 | -2.5979 | -2.5979 | -2.5979 | -2.5979 | -2.5979 |
| 1.300 | -6.0000 | 4125.05999 | 249.28354 | .00887 | .00876 | -2.6239 | -2.6239 | -2.6239 | -2.6239 | -2.6239 |
| 1.300 | -6.0000 | 4125.06399 | 249.27871 | .00784 | .00773 | -2.6499 | -2.6499 | -2.6499 | -2.6499 | -2.6499 |
| 1.300 | -6.0000 | 4125.06799 | 249.27388 | .00681 | .00670 | -2.6759 | -2.6759 | -2.6759 | -2.6759 | -2.6759 |
| 1.300 | -6.0000 | 4125.07199 | 249.26905 | .00578 | .00567 | -2.7019 | -2.7019 | -2.7019 | -2.7019 | -2.7019 |
| 1.300 | -6.0000 | 4125.07599 | 249.26422 | .00475 | .00464 | -2.7279 | -2.7279 | -2.7279 | -2.7279 | -2.7279 |
| 1.300 | -6.0000 | 4125.07999 | 249.25939 | .00372 | .00361 | -2.7539 | -2.7539 | -2.7539 | -2.7539 | -2.7539 |
| 1.300 | -6.0000 | 4125.08399 | 249.25456 | .00269 | .00258 | -2.7799 | -2.7799 | -2.7799 | -2.7799 | -2.7799 |
| 1.300 | -6.0000 | 4125.08799 | 249.24973 | .00166 | .00155 | -2.8059 | -2.8059 | -2.8059 | -2.8059 | -2.8059 |
| 1.300 | -6.0000 | 4125.09199 | 249.24490 | .00063 | .00052 | -2.8319 | -2.8319 | -2.8319 | -2.8319 | -2.8319 |
| 1.300 | -6.0000 | 4125.09599 | 249.24007 | .00000 | .00000 | -2.8579 | -2.8579 | -2.8579 | -2.8579 | -2.8579 |
| 1.300 | -6.0000 | 4125.09999 | 249.23524 | .00000 | .00000 | -2.8839 | -2.8839 | -2.8839 | -2.8839 | -2.8839 |
| 1.300 | -6.0000 | 4125.10399 | 249.23041 | .00000 | .00000 | -2.9099 | -2.9099 | -2.9099 | -2.9099 | -2.9099 |
| 1.300 | -6.0000 | 4125.10799 | 249.22558 | .00000 | .00000 | -2.9359 | -2.9359 | -2.9359 | -2.9359 | -2.9359 |
| 1.300 | -6.0000 | 4125.11199 | 249.22075 | .00000 | .00000 | -2.9619 | -2.9619 | -2.9619 | -2.9619 | -2.9619 |
| 1.300 | -6.0000 | 4125.11599 | 249.21592 | .00000 | .00000 | -2.9879 | -2.9879 | -2.9879 | -2.9879 | -2.9879 |
| 1.300 | -6.0000 | 4125.11999 | 249.21109 | .00000 | .00000 | -3.0139 | -3.0139 | -3.0139 | -3.0139 | -3.0139 |
| 1.300 | -6.0000 | 4125.12399 | 249.20626 | .00000 | .00000 | -3.0399 | -3.0399 | -3.0399 | -3.0399 | -3.0399 |
| 1.300 | -6.0000 | 4125.12799 | 249.20143 | .00000 | .00000 | -3.0659 | -3.0659 | -3.0659 | -3.0659 | -3.0659 |
| 1.300 | -6.0000 | 4125.13199 | 249.19660 | .00000 | .00000 | -3.0919 | -3.0919 | -3.0919 | -3.0919 | -3.0919 |
| 1.300 | -6.0000 | 4125.13599 | 249.19177 | .00000 | .00000 | -3.1179 | -3.1179 | -3.1179 | -3.1179 | -3.1179 |
| 1.300 | -6.0000 | 4125.13999 | 249.18694 | .00000 | .00000 | -3.1439 | -3.1439 | -3.1439 | -3.1439 | -3.1439 |
| 1.300 | -6.0000 | 4125.14399 | 249.18211 | .00000 | .00000 | -3.1699 | -3.1699 | -3.1699 | -3.1699 | -3.1699 |
| 1.300 | -6.0000 | 4125.14799 | 249.17728 | .00000 | .00000 | -3.1959 | -3.1959 | -3.1959 | -3.1959 | -3.1959 |
| 1.300 | -6.0000 | 4125.15199 | 249.17245 | .00000 | .00000 | -3.2219 | -3.2219 | -3.2219 | -3.2219 | -3.2219 |
| 1.300 | -6.0000 | 4125.15599 | 249.16762 | .00000 | .00000 | -3.2479 | -3.2479 | -3.2479 | -3.2479 | -3.2479 |
| 1.300 | -6.0000 | 4125.15999 | 249.16279 | .00000 | .00000 | -3.2739 | -3.2739 | -3.2739 | -3.2739 | -3.2739 |
| 1.300 | -6.0000 | 4125.16399 | 249.15796 | .00000 | .00000 | -3.2999 | -3.2999 | -3.2999 | -3.2999 | -3.2999 |
| 1.300 | -6.0000 | 4125.16799 | 249.15313 | .00000 | .00000 | -3.3259 | -3.3259 | -3.3259 | -3.3259 | -3.3259 |
| 1.300 | -6.0000 | 4125.17199 | 249.14830 | .00000 | .00000 | -3.3519 | -3.3519 | -3.3519 | -3.3519 | -3.3519 |
| 1.300 | -6.0000 | 4125.17599 | 249.14347 | .00000 | .00000 | -3.3779 | -3.3779 | -3.3779 | -3.3779 | -3.3779 |
| 1.300 | -6.0000 | 4125.17999 | 249.13864 | .00000 | .00000 | -3.4039 | -3.4039 | -3.4039 | -3.4039 | -3.4039 |
| 1.300 | -6.0000 | 4125.18399 | 249.13381 | .00000 | .00000 | -3.4299 | -3.4299 | -3.4299 | -3.4299 | -3.4299 |
| 1.300 | -6.0000 | 4125.18799 | 249.12898 | .00000 | .00000 | -3.4559 | -3.4559 | -3.4559 | -3.4559 | -3.4559 |
| 1.300 | -6.0000 | 4125.19199 | 249.12415 | .00000 | .00000 | -3.4819 | -3.4819 | -3.4819 | -3.4819 | -3.4819 |
| 1.300 | -6.0000 | 4125.19599 | 249.11932 | .00000 | .00000 | -3.5079 | -3.5079 | -3.5079 | -3.5079 | -3.5079 |
| 1.300 | -6.0000 | 4125.19999 | 249.11449 | .00000 | .00000 | -3.5339 | -3.5339 | -3.5339 | -3.5339 | -3.5339 |
| 1.300 | -6.0000 | 4125.20399 | 249.10966 | .00000 | .00000 | -3.5599 | -3.5599 | -3.5599 | -3.5599 | -3.5599 |
| 1.300 | -6.0000 | 4125.20799 | 249.10483 | .00000 | .00000 | -3.5859 | -3.5859 | -3.5859 | -3.5859 | -3.5859 |
| 1.300 | -6.0000 | 4125.21199 | 249.10000 | .00000 | .00000 | -3.6119 | -3.6119 | -3.6119 | -3.6119 | -3.6119 |
| 1.300 | -6.0000 | 4125.21599 | 249.09517 | .00000 | .00000 | -3.6379 | -3.6379 | -3.6379 | -3.6379 | -3.6379 |
| 1.300 | -6.0000 | 4125.21999 | 249.09034 | .00000 | .00000 | -3.6639 | -3.6639 | -3.6639 | -3.6639 | -3.6639 |
| 1.300 | -6.0000 | 4125.22399 | 249.08551 | .00000 | .00000 | -3.6899 | -3.6899 | -3.6899 | -3.6899 | -3.6899 |
| 1.300 | -6.0000 | 4125.22799 | 249.08068 | .00000 | .00000 | -3.7159 | -3.7159 | -3.7159 | -3.7159 | -3.7159 |
| 1.300 | -6.0000 | 4125.23199 | 249.07585 | .00000 | .00000 | -3.7419 | -3.7419 | -3.7419 | -3.7419 | -3.7419 |
| 1.300 | -6.0000 | 4125.23599 | 249.07102 | .00000 | .00000 | -3.7679 | -3.7679 | -3.7679 | -3.7679 | -3.7679 |
| 1.300 | -6.0000 | 4125.23999 | 249.06619 | .00000 | .00000 | -3.7939 | -3.7939 | -3.7939 | -3.7939 | -3.7939 |
| 1.300 | -6.0000 | 4125.24399 | 249.06136 | .00000 | .00000 | -3.8199 | -3.8199 | -3.8199 | -3.8199 | -3.8199 |
| 1.300 | -6.0000 | 4125.24799 | 249.05653 | .00000 | .00000 | -3.8459 | -3.8459 | -3.8459 | -3.8459 | -3.845 |

9

TABULATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6300 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

PARAMETRIC DATA

BETA = -5.000 ELEVON = .000
AILRON = .000 BOFLAP = -7.178

RM/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|----------|------------|-----------|--------|--------|---------|---------|---------|--------|---------|
| .300 | .000 | -5.00000 | 4119.57965 | 248.78149 | .02882 | .02583 | -.17694 | -.18633 | -.17793 | .99462 | .98988 |
| 2.000 | .000 | -5.00000 | 4123.57532 | 249.36577 | .03747 | .03592 | -.16715 | -.17654 | -.17265 | .99815 | .99668 |
| 4.000 | .000 | -5.00000 | 4121.73639 | 249.09460 | .03666 | .03669 | -.16966 | -.17605 | -.17357 | .98534 | .99960 |
| 6.000 | .000 | -5.00000 | 4121.49103 | 249.06122 | .03647 | .03669 | -.17186 | -.17632 | -.17559 | .99004 | 1.00154 |
| 8.000 | .000 | -5.00000 | 4121.81604 | 249.09479 | .03511 | .03760 | -.16993 | -.17610 | -.17541 | .99125 | 1.00178 |
| 10.000 | .000 | -5.00000 | 4119.14674 | 248.88782 | .03201 | .03292 | -.17361 | -.17948 | -.18024 | .99157 | .98852 |
| 12.000 | .000 | -5.00000 | 4118.78351 | 248.85522 | .03330 | .03393 | -.16471 | -.17714 | -.17796 | .98891 | .99812 |
| 14.000 | .000 | -5.00000 | 4118.52954 | 248.83374 | .03183 | .03396 | -.16470 | -.17525 | -.17781 | .98148 | .99501 |
| 16.000 | .000 | -5.00000 | 4121.14709 | 249.04761 | .03279 | .03636 | -.16551 | -.17227 | -.17383 | .96834 | .98857 |
| 18.000 | .000 | -5.00000 | 4121.60559 | 249.06342 | .03205 | .03585 | -.16674 | -.17083 | -.17203 | .94765 | .99384 |
| 20.000 | .000 | -5.00000 | 4121.58350 | 249.15082 | .02773 | .03150 | -.17854 | -.17739 | -.17885 | .91722 | .98381 |
| 22.000 | .000 | -5.00000 | 4122.00201 | 249.13409 | .03114 | .03330 | -.17926 | -.17763 | -.17354 | .87208 | .97819 |
| 24.000 | .000 | -5.00000 | 4120.84576 | 249.04639 | .02573 | .02828 | -.19171 | -.18608 | -.18004 | .80868 | .96912 |
| GRADIENT | | .00000 | .53923 | .07828 | .00196 | .00252 | .00182 | .00257 | .00109 | .00018 | -.00009 |

RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | -5.00000 | 2506.31174 | 544.14188 | .07960 | .22872 | -.14434 | -.07859 | .07863 | .98339 | .98761 |
| 2.000 | .000 | -5.00000 | 2506.26218 | 544.09811 | .04520 | .15635 | -.15018 | -.11053 | .00565 | .99338 | .99400 |
| 4.000 | .000 | -5.00000 | 2511.81845 | 544.70374 | .03232 | .12245 | -.14920 | -.12231 | -.02713 | .99159 | .99461 |
| 6.000 | .000 | -5.00000 | 2509.86660 | 544.56058 | .02506 | .10137 | -.15225 | -.13048 | -.04834 | .99187 | .99508 |
| 8.000 | .000 | -5.00000 | 2511.31799 | 544.67014 | .02052 | .08587 | -.15319 | -.13453 | -.06532 | .99137 | .99703 |
| 10.000 | .000 | -5.00000 | 2512.78818 | 544.77307 | .01580 | .07183 | -.15297 | -.13928 | -.07988 | .98866 | .99537 |
| 12.000 | .000 | -5.00000 | 2512.78818 | 544.60922 | .01005 | .05901 | -.15450 | -.14356 | -.09176 | .98385 | .99434 |
| 14.000 | .000 | -5.00000 | 2514.28763 | 545.60922 | .00949 | .05205 | -.15638 | -.14509 | -.09882 | .97811 | .99339 |
| 16.000 | .000 | -5.00000 | 2521.94302 | 545.13351 | .01132 | .04666 | -.15966 | -.14571 | -.10528 | .97110 | .99183 |
| 18.000 | .000 | -5.00000 | 2517.48352 | 545.94302 | .00616 | .03491 | -.17197 | -.15571 | -.11987 | .96845 | .98724 |
| 20.000 | .000 | -5.00000 | 2515.42865 | 545.24341 | .00312 | .02654 | -.18824 | -.16921 | -.13189 | .93841 | .98338 |
| 22.000 | .000 | -5.00000 | 2517.02057 | 545.41806 | .00226 | .02177 | -.19713 | -.17378 | -.14079 | .90751 | .97679 |
| 24.000 | .000 | -5.00000 | 2512.80313 | 544.94443 | -.00150 | .01592 | -.20814 | -.18461 | -.15196 | .86296 | .96621 |
| GRADIENT | | .00000 | 1.37667 | .14046 | -.01182 | -.02667 | -.00122 | -.01093 | -.02669 | -.00045 | -.00075 |

TABLATED DATA - 0A181 (ARC 11-97-87-094)
ARC 11-97-87-094 0A181 ORBITER + PROBES

(BETHEID) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
ATLRON = .000 BOIFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZQ
SCALE = .0300

MACH = .360
RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|------|----------|----------|------------|-----------|--------|--------|---------|---------|---------|---------|---------|
| | .000 | -2.00000 | 4121.05066 | 249.00507 | .03058 | .01992 | -.16232 | -.17556 | -.16894 | 1.00649 | .98679 |
| | 2.000 | -2.00000 | 4127.24060 | 249.68186 | .03006 | .02113 | -.16878 | -.17829 | -.17266 | .99873 | .99984 |
| | 4.000 | -2.00000 | 4127.63379 | 249.71631 | .03222 | .02644 | -.16596 | -.17559 | -.17440 | .99805 | 1.00008 |
| | 6.000 | -2.00000 | 4127.47223 | 249.70691 | .03062 | .02683 | -.16609 | -.17659 | -.17634 | .99961 | .99985 |
| | 8.000 | -2.00000 | 4125.35101 | 249.40753 | .02871 | .02696 | -.16114 | -.17627 | -.17958 | .99995 | 1.00172 |
| | 10.000 | -2.00000 | 4125.09515 | 249.36584 | .02817 | .02596 | -.16595 | -.17661 | -.17993 | .99860 | 1.00002 |
| | 12.000 | -2.00000 | 4127.15857 | 249.65997 | .03084 | .02849 | -.15995 | -.17008 | -.17499 | .99245 | 1.00156 |
| | 14.000 | -2.00000 | 4127.72009 | 249.73999 | .03183 | .02849 | -.15873 | -.17448 | -.17498 | .98658 | 1.00077 |
| | 16.000 | -2.00000 | 4125.48828 | 249.41089 | .02717 | .02725 | -.16229 | -.17065 | -.17997 | .97194 | .99463 |
| | 18.000 | -2.00000 | 4127.15497 | 249.55729 | .02945 | .02757 | -.16230 | -.17090 | -.17498 | .95293 | .99049 |
| | 20.000 | -2.00000 | 4126.50238 | 249.53143 | .02650 | .02636 | -.16827 | -.17338 | -.17516 | .92160 | .98592 |
| | 22.000 | -2.00000 | 4122.64178 | 249.21149 | .02340 | .02340 | -.18024 | -.17927 | -.17780 | .87713 | .97754 |
| | 24.000 | -2.00000 | 4121.59155 | 249.18207 | .02499 | .02186 | -.20113 | -.18551 | -.18163 | .81665 | .97162 |
| | GRADIENT | .00000 | 1.64579 | .17781 | .00041 | .00163 | -.00091 | -.00026 | -.00136 | -.00261 | .00082 |

MACH = .600
RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|------|----------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| | .000 | -2.00000 | 2501.29996 | 543.63489 | -.01844 | -.00497 | -.16655 | -.21831 | -.19108 | .98347 | .98658 |
| | 2.000 | -2.00000 | 2511.32452 | 544.57901 | -.07782 | -.00141 | -.15655 | -.19111 | -.18402 | .99577 | .99577 |
| | 4.000 | -2.00000 | 2512.74292 | 544.80139 | -.03864 | -.00420 | -.15742 | -.18569 | -.18361 | .99591 | .98630 |
| | 6.000 | -2.00000 | 2512.11310 | 544.74756 | -.00792 | -.00431 | -.15479 | -.17999 | -.18065 | .99577 | .99438 |
| | 8.000 | -2.00000 | 2517.33130 | 545.34128 | -.00460 | -.00223 | -.15018 | -.17163 | -.17604 | .99431 | .99532 |
| | 10.000 | -2.00000 | 2514.05701 | 544.98981 | -.00663 | -.00452 | -.15494 | -.17114 | -.17521 | .99152 | .99474 |
| | 12.000 | -2.00000 | 2508.66873 | 544.47385 | -.00851 | -.00690 | -.15661 | -.17116 | -.17472 | .99130 | .99549 |
| | 14.000 | -2.00000 | 2515.03925 | 545.19662 | -.00618 | -.00620 | -.15810 | -.16833 | -.17132 | .98460 | .99500 |
| | 16.000 | -2.00000 | 2518.78275 | 545.55393 | -.00395 | -.00296 | -.16140 | -.16223 | -.16727 | .97500 | .99229 |
| | 18.000 | -2.00000 | 2515.10529 | 545.23941 | -.00601 | -.00404 | -.17826 | -.17431 | -.16909 | .96047 | .98621 |
| | 20.000 | -2.00000 | 2515.90900 | 545.29971 | -.00534 | -.00407 | -.18127 | -.17148 | -.17148 | .93907 | .97974 |
| | 22.000 | -2.00000 | 2516.35815 | 545.33105 | -.00435 | -.00335 | -.20636 | -.17544 | -.17544 | .90296 | .97126 |
| | 24.000 | -2.00000 | 2514.59457 | 545.21460 | -.00623 | -.00479 | -.22353 | -.18174 | -.18174 | .84315 | .97126 |
| | GRADIENT | .00000 | 2.86074 | .29163 | .00243 | .00019 | -.00298 | .00815 | .00181 | .00059 | -.00005 |

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OF POOR QUALITY

PARAMETRIC DATA

BETA = .000 ELEVON = .000
ATLRON = .000 BDELAP = -7.178

REFERENCE DATA

SREF = 2800.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 956.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RM/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | OCOMP | PT11/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .300 | .00000 | 4125.41028 | 249.73895 | .03857 | .04258 | -.15459 | -.16664 | -.16615 | 1.00537 | .99327 |
| ALPHA | .000 | 4125.70245 | 249.19238 | .03720 | .04588 | -.16473 | -.17290 | -.17160 | .99845 | .98861 |
| 2.000 | .00000 | 4119.92072 | 248.96869 | .03282 | .03358 | -.16329 | -.17298 | -.17506 | .99958 | .99894 |
| 4.000 | .00000 | 4122.39531 | 249.16431 | .03604 | .03069 | -.16012 | -.16886 | -.17034 | 1.00151 | 1.00151 |
| 6.000 | .00000 | 4122.70056 | 249.17322 | .03432 | .02801 | -.15975 | -.16901 | -.17318 | .99693 | 1.00023 |
| 8.000 | .00000 | 4120.15510 | 248.97644 | .02926 | .02801 | -.16321 | -.17125 | -.17543 | .99840 | 1.00004 |
| 10.000 | .00000 | 4120.08838 | 248.98328 | .02848 | .03065 | -.15884 | -.16860 | -.17420 | .99540 | 1.00013 |
| 12.000 | .00000 | 4120.50262 | 249.02924 | .02857 | .02944 | -.15651 | -.16985 | -.17095 | .99794 | 1.00007 |
| 14.000 | .00000 | 4120.01282 | 248.97894 | .02798 | .02788 | -.15662 | -.16756 | -.17140 | .97624 | .99692 |
| 16.000 | .00000 | 4120.13165 | 248.99097 | .02773 | .02930 | -.15659 | -.16509 | -.16898 | .95509 | .99510 |
| 18.000 | .00000 | 4119.52338 | 248.94595 | .02584 | .02453 | -.16033 | -.16605 | -.17023 | .92804 | .99036 |
| 20.000 | .00000 | 4121.31134 | 249.11853 | .02386 | .02297 | -.17159 | -.16065 | -.17189 | .87765 | .97878 |
| 22.000 | .00000 | 4122.39026 | 249.24579 | .02771 | .02458 | -.18149 | -.17085 | -.17181 | .81648 | .97300 |
| 24.000 | .00000 | -1.62236 | -.19257 | -.00171 | -.00318 | -.00218 | -.00157 | -.00223 | -.00143 | -.00167 |

RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | OCOMP | PT11/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------|--------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .500 | .00000 | 2496.82769 | 542.73410 | -.00057 | -.00008 | -.15371 | -.20445 | -.19895 | .99878 | 1.00045 |
| ALPHA | .000 | 2511.31277 | 544.57352 | .00177 | .00475 | -.15722 | -.18539 | -.18743 | .99733 | .99589 |
| 2.000 | .00000 | 2507.01227 | 544.18674 | -.00239 | .00185 | -.15534 | -.18194 | -.18752 | .98537 | .99477 |
| 4.000 | .00000 | 2504.08737 | 543.80991 | -.00526 | -.00188 | -.15743 | -.18028 | -.18576 | .98488 | .99417 |
| 6.000 | .00000 | 2507.69669 | 544.12918 | -.02998 | .00148 | -.15264 | -.17505 | -.18157 | .99423 | .99440 |
| 8.000 | .00000 | 2511.66229 | 544.59464 | -.00195 | .00167 | -.15100 | -.17042 | -.17763 | .99470 | .99734 |
| 10.000 | .00000 | 2516.93073 | 545.34881 | -.00164 | .00249 | -.15197 | -.16889 | -.17301 | .99027 | .99621 |
| 12.000 | .00000 | 2516.29508 | 545.23459 | -.00171 | .00151 | -.15124 | -.16488 | -.17301 | .98674 | .99634 |
| 14.000 | .00000 | 2516.71591 | 545.31421 | -.00186 | .00155 | -.15211 | -.16267 | -.16718 | .97737 | .99332 |
| 16.000 | .00000 | 2519.31281 | 545.54465 | -.00067 | .00287 | -.16866 | -.16551 | -.16600 | .99135 | .99135 |
| 18.000 | .00000 | 2522.01395 | 545.95819 | -.00011 | .00273 | -.18348 | -.17062 | -.16568 | .93517 | .98644 |
| 20.000 | .00000 | 2520.69785 | 545.91702 | -.00251 | .00029 | -.19583 | -.18099 | -.17100 | .89359 | .98229 |
| 22.000 | .00000 | 2511.39380 | 544.84381 | -.00853 | -.00621 | -.22104 | -.19641 | -.18224 | .82837 | .97244 |
| 24.000 | .00000 | 2.84615 | -.36316 | -.00045 | -.00048 | -.00041 | -.00563 | -.00293 | -.00085 | -.00142 |

TABULATED DATA - OA161 (ARC 11-97-87-084)
 ARC 11-97-87-084 OA161 ORBITER + PROBES

(8E7442) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
 ATLRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6890 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BRFF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RNVL = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .300 | 2.00000 | 4115.48004 | 248.44531 | -.02642 | -.09629 | -.16386 | -.22829 | -.12756 | 1.00634 | .99619 |
| ALPHA | 2.00000 | 4114.81775 | 248.35851 | -.00318 | -.08940 | -.16680 | -.20518 | -.19829 | .99993 | 1.00285 |
| .000 | 2.00000 | 4114.38245 | 248.31848 | .00403 | -.02364 | -.16679 | -.19216 | -.19347 | 1.00149 | 1.00007 |
| 4.000 | 2.00000 | 4114.84580 | 248.35297 | .00738 | -.01173 | -.16479 | -.19244 | -.19741 | .99992 | .00012 |
| 6.000 | 2.00000 | 4113.08344 | 248.26361 | .00911 | -.01099 | -.16291 | -.19035 | -.19984 | .99544 | .99991 |
| 8.000 | 2.00000 | 4112.21918 | 248.21918 | .00890 | -.00799 | -.16346 | -.18318 | -.19858 | .99682 | .99855 |
| 10.000 | 2.00000 | 4112.73633 | 248.25049 | .01249 | -.06318 | -.16009 | -.18271 | -.19359 | .99783 | .99814 |
| 12.000 | 2.00000 | 4112.27911 | 247.94373 | .01215 | .00014 | -.15895 | -.17968 | -.19163 | .99918 | 1.00598 |
| 14.000 | 2.00000 | 4113.91693 | 248.22748 | .01284 | .00264 | -.16273 | -.17816 | -.18808 | .97954 | .99348 |
| 16.000 | 2.00000 | 4115.94379 | 248.55912 | .01850 | .00983 | -.16265 | -.17189 | -.18115 | .95784 | .99348 |
| 18.000 | 2.00000 | 4119.10223 | 248.91479 | .02482 | .01546 | -.15901 | -.16550 | -.17380 | .92940 | .99304 |
| 20.000 | 2.00000 | 4122.01495 | 249.21887 | .02716 | .01862 | -.16987 | -.16593 | -.17150 | .88352 | .96508 |
| 22.000 | 2.00000 | 4117.24634 | 248.65137 | .01720 | .00856 | -.18710 | -.18234 | -.18458 | .82808 | .97495 |
| 24.000 | .00000 | -.27441 | -.03171 | .00761 | .01816 | -.00023 | .00753 | -.00048 | -.08124 | .00097 |

RNVL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .500 | 2.00000 | 2511.72870 | 544.38303 | -.00226 | .00011 | -.15658 | -.20427 | -.19468 | .98744 | .99816 |
| ALPHA | 2.00000 | 2517.44931 | 545.43201 | -.00237 | -.00031 | -.15796 | -.18970 | -.18985 | .98840 | .99732 |
| .000 | 2.00000 | 2521.57040 | 545.94418 | -.00104 | .00027 | -.15388 | -.18889 | -.18509 | .98690 | .99729 |
| 4.000 | 2.00000 | 2515.75690 | 545.04642 | .00010 | .00140 | -.15485 | -.17813 | -.18432 | .99610 | .98778 |
| 6.000 | 2.00000 | 2535.99307 | 550.33798 | -.04714 | -.04648 | -.15807 | -.17780 | -.18681 | .98614 | .99594 |
| 8.000 | 2.00000 | 2545.28705 | 551.92322 | -.05237 | -.05166 | -.15431 | -.17147 | -.18056 | .99384 | .99524 |
| 10.000 | 2.00000 | 2543.39755 | 551.59161 | -.05093 | -.04897 | -.15407 | -.16870 | -.17727 | .99049 | .99511 |
| 12.000 | 2.00000 | 2545.79368 | 551.95847 | -.05063 | -.04795 | -.15561 | -.16581 | -.17250 | .98496 | .99532 |
| 14.000 | 2.00000 | 2547.21573 | 552.08121 | -.05055 | -.04762 | -.16173 | -.16636 | -.17009 | .98424 | .99494 |
| 16.000 | 2.00000 | 2543.28360 | 551.73090 | -.05359 | -.05109 | -.17802 | -.17342 | -.17809 | .95494 | .98150 |
| 18.000 | 2.00000 | 2551.08099 | 552.59949 | -.05001 | -.04717 | -.18867 | -.17468 | -.16946 | .93036 | .98655 |
| 20.000 | 2.00000 | 2551.13522 | 552.68289 | -.05192 | -.04863 | -.19842 | -.18238 | -.17327 | .88256 | .98408 |
| 22.000 | 2.00000 | 2544.39563 | 551.87558 | -.05443 | -.05064 | -.21227 | -.19217 | -.17953 | .80873 | .97444 |
| 24.000 | .00000 | 2.46045 | .39029 | .00081 | .00004 | .00073 | .00584 | .00240 | -.00013 | -.00022 |

REFERENCE DATA

SPEF = 2590.0000 SO.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RNVL = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH = .300

| ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .000 | 5.00000 | 4111.07709 | 247.82642 | .18945 | .27915 | -.17180 | -.06632 | -.39135 | 1.00387 | .99548 |
| 2.000 | 5.00000 | 4111.63330 | 247.91272 | .11724 | .40183 | -.16669 | -.10695 | -.26106 | 1.00022 | 1.00008 |
| 4.000 | 5.00000 | 4113.61224 | 248.18791 | .09306 | .07473 | -.16371 | -.11966 | -.23157 | .99860 | 1.00161 |
| 6.000 | 5.00000 | 4113.71021 | 249.19989 | .07255 | .04499 | -.16425 | -.13306 | -.20887 | 1.00141 | .99991 |
| 8.000 | 5.00000 | 4109.65509 | 247.69733 | .05154 | .05481 | -.16666 | -.14881 | -.19777 | 1.00183 | 1.00160 |
| 10.000 | 5.00000 | 4111.06720 | 247.87079 | .04227 | .04538 | -.16425 | -.15283 | -.18704 | .99993 | .99851 |
| 12.000 | 5.00000 | 4109.18353 | 247.73529 | .02972 | .04190 | -.16145 | -.16026 | -.18441 | .99285 | 1.00077 |
| 14.000 | 5.00000 | 4111.46014 | 247.97327 | .02813 | .03819 | -.16145 | -.15903 | -.17539 | .98974 | .99397 |
| 16.000 | 5.00000 | 4118.91577 | 248.78912 | .02268 | .02741 | -.16094 | -.16438 | -.17142 | .97740 | .99230 |
| 18.000 | 5.00000 | 4119.71191 | 248.91748 | .01803 | .01816 | -.15513 | -.17007 | -.17476 | .96078 | .98569 |
| 20.000 | 5.00000 | 4124.50134 | 249.35229 | .01986 | .01976 | -.16404 | -.16818 | -.16966 | .92498 | .98569 |
| 22.000 | 5.00000 | 4123.99310 | 249.27850 | .01942 | .01500 | -.17274 | -.17274 | -.17432 | .87860 | .97571 |
| 24.000 | 5.00000 | 4116.33938 | 248.48297 | .00951 | .00609 | -.19232 | -.18970 | -.18626 | .81184 | .97149 |
| GRADIENT | .00000 | .63383 | .09035 | -.02410 | -.05110 | .00202 | -.01359 | .03994 | -.00134 | .00128 |

RNVL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

MACH = .600

| ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|--------|
| .000 | 5.00000 | 2539.89575 | 551.15329 | -.05348 | -.05241 | -.16574 | -.20880 | -.19884 | .99816 | .99443 |
| 2.000 | 5.00000 | 2543.77155 | 551.75238 | -.05503 | -.05642 | -.16528 | -.19640 | -.19603 | .99589 | .99633 |
| 4.000 | 5.00000 | 2547.62610 | 552.10391 | -.05326 | -.05208 | -.16375 | -.18688 | -.19147 | .99755 | .99544 |
| 6.000 | 5.00000 | 2543.32291 | 551.60599 | -.05568 | -.05483 | -.16322 | -.18558 | -.19179 | .99548 | .99737 |
| 8.000 | 5.00000 | 2542.63596 | 552.08066 | -.06482 | -.06420 | -.16315 | -.18400 | -.19194 | .99554 | .99544 |
| 10.000 | 5.00000 | 2545.97491 | 552.50766 | -.06561 | -.06538 | -.15969 | -.17935 | -.18871 | .99606 | .99576 |
| 12.000 | 5.00000 | 2543.11097 | 552.24149 | -.06625 | -.06692 | -.16004 | -.17782 | -.18732 | .99522 | .99691 |
| 14.000 | 5.00000 | 2547.63428 | 552.68491 | -.06400 | -.06461 | -.16251 | -.17406 | -.18199 | .98555 | .99519 |
| 16.000 | 5.00000 | 2552.74863 | 553.24478 | -.06264 | -.06339 | -.16762 | -.17315 | -.17891 | .97305 | .99542 |
| 18.000 | 5.00000 | 2540.56571 | 552.00095 | -.06972 | -.07029 | -.19111 | -.18537 | -.18583 | .95215 | .99238 |
| 20.000 | 5.00000 | 2537.67148 | 551.58651 | -.06966 | -.07022 | -.19442 | -.18911 | -.18718 | .92404 | .98953 |
| 22.000 | 5.00000 | 2543.69781 | 552.26263 | -.06625 | -.06714 | -.19603 | -.18931 | -.18561 | .87134 | .98261 |
| 24.000 | 5.00000 | 2543.88870 | 552.44699 | -.06807 | -.06863 | -.20820 | -.19524 | -.18843 | .77608 | .97507 |
| GRADIENT | .00000 | 1.93259 | .23766 | .00006 | .00008 | .00050 | -.00548 | .00184 | -.00015 | .00050 |

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
 AIRLON = .000 EDFLAP = -7.170

ARC 727

TABULATED DATA - OA161 (ARC 11-97-87-09%)

ARC 11-97-87-09% OA161 ORBITER + PROBES.

(BE7H44) (02 78)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LPEF = 474.8000 IN. YMRP = .0000 IN. YO
 BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

PARAMETRIC DATA

BETA = 8.000 ELEVON = .008
 ALLROW = .000 BDFLAP = -7.170

RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|--------|---------|------------|-----------|----------|-----------|--------|----------|----------|---------|---------|
| .300 | .000 | 8.00000 | 4104.20569 | 247.56268 | -5.77323 | -13.86357 | -35469 | -5.29708 | -2.24245 | 1.00176 | .99787 |
| 2.000 | 2.000 | 8.00000 | 4098.86363 | 246.59363 | -3.35739 | -13.36498 | -31357 | -3.34410 | -2.53344 | .99854 | 1.00089 |
| 4.000 | 4.000 | 8.00000 | 4100.82227 | 246.78015 | -2.37721 | -4.89620 | -29967 | -2.50680 | -2.51270 | .99947 | .99908 |
| 6.000 | 6.000 | 8.00000 | 4104.97906 | 247.29291 | -1.77698 | -3.45121 | -27982 | -2.00016 | -2.34489 | .99751 | .99845 |
| 8.000 | 8.000 | 8.00000 | 4106.86511 | 247.42456 | -1.29717 | -3.08114 | -25867 | -1.56548 | -2.12146 | .99981 | .99938 |
| 10.000 | 10.000 | 8.00000 | 4103.75903 | 247.07885 | -.96735 | -2.47227 | -24568 | -1.25363 | -1.88863 | .99897 | .98788 |
| 12.000 | 12.000 | 8.00000 | 4102.73383 | 246.98956 | -.71715 | -2.03381 | -22980 | -1.00454 | -1.64968 | .99379 | .99734 |
| 14.000 | 14.000 | 8.00000 | 4103.26404 | 247.04779 | -.53137 | -1.63456 | -21691 | -.81443 | -1.42804 | .98637 | .98543 |
| 16.000 | 16.000 | 8.00000 | 4107.78955 | 247.53607 | -.39419 | -1.32252 | -20990 | -.55950 | -1.23478 | .97125 | .99501 |
| 18.000 | 18.000 | 8.00000 | 4109.02155 | 247.65472 | -.29278 | -1.05616 | -20270 | -.47576 | -1.05917 | .95427 | .98672 |
| 20.000 | 20.000 | 8.00000 | 4107.89282 | 247.57880 | -.21736 | -.83910 | -19825 | -.41326 | -.90789 | .92306 | .97884 |
| 22.000 | 22.000 | 8.00000 | 4104.02478 | 247.19354 | -.16493 | -.65959 | -20416 | -.37269 | -.77854 | .87365 | .97032 |
| 24.000 | 24.000 | 8.00000 | 4100.98999 | 246.88135 | -.13041 | -.53379 | -21070 | -.32629 | -.68256 | .78426 | .97032 |
| GRADIENT | | .00000 | -.84587 | -.19563 | .84901 | 2.24184 | .01373 | .6925 | -.06756 | -.00057 | .00030 |

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|--------|---------|------------|-----------|---------|---------|--------|---------|---------|---------|--------|
| .600 | .000 | 8.00000 | 2540.42752 | 551.77985 | -.01709 | .04582 | -17427 | -.16709 | -.18367 | 1.00076 | .98413 |
| 2.000 | 2.000 | 8.00000 | 2541.56726 | 551.92032 | -.03767 | .04213 | -17464 | -.17216 | -.17901 | .99566 | .99592 |
| 4.000 | 4.000 | 8.00000 | 2543.31274 | 552.13834 | -.04631 | -.02786 | -17159 | -.17485 | -.17848 | .98731 | .99686 |
| 6.000 | 6.000 | 8.00000 | 2543.26749 | 552.22540 | -.05199 | -.04013 | -17395 | -.17751 | -.17859 | .99706 | .99664 |
| 8.000 | 8.000 | 8.00000 | 2539.14648 | 551.52222 | -.05401 | -.03984 | -17519 | -.17947 | -.17935 | .99811 | .99725 |
| 10.000 | 10.000 | 8.00000 | 2540.49190 | 551.64600 | -.05600 | -.04484 | -17076 | -.17947 | -.18006 | .99554 | .99739 |
| 12.000 | 12.000 | 8.00000 | 2540.93640 | 551.81924 | -.05900 | -.04994 | -16754 | -.17974 | -.18098 | .99325 | .99615 |
| 14.000 | 14.000 | 8.00000 | 2542.98930 | 551.97818 | -.05993 | -.05320 | -17474 | -.18087 | -.18126 | .98508 | .99515 |
| 16.000 | 16.000 | 8.00000 | 2546.36489 | 552.30219 | -.05943 | -.05480 | -17709 | -.18118 | -.18126 | .97051 | .98447 |
| 18.000 | 18.000 | 8.00000 | 2552.10068 | 552.94501 | -.05761 | -.05567 | -18321 | -.18201 | -.18086 | .94753 | .98884 |
| 20.000 | 20.000 | 8.00000 | 2542.79172 | 551.97647 | -.06235 | -.05922 | -19245 | -.18613 | -.18613 | .91286 | .98651 |
| 22.000 | 22.000 | 8.00000 | 2537.01990 | 551.41318 | -.06604 | -.06359 | -20926 | -.20080 | -.19245 | .84821 | .98104 |
| 24.000 | 24.000 | 8.00000 | 2540.41748 | 551.86670 | -.06346 | -.06472 | -21214 | -.20451 | -.19529 | .75433 | .97060 |
| GRADIENT | | .00000 | .72131 | -.08962 | -.00731 | -.01823 | .00067 | -.00194 | .00130 | -.00086 | .00069 |

TABULATED DATA - OA161 (ARC 11-97-87-094)

(BE7446) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = 15.000
AILRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XC
LREF = 474.8000 IN. YMRP = .0000 IN. YC
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZC
SCALE = .0300

RM/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .300 | .000 | -2.00000 | 4083.06894 | 246.58884 | -.00615 | -.00048 | -.20143 | -.20903 | -.20453 | .99986 | 1.00401 |
| 2.000 | 2.000 | -2.00000 | 4084.17751 | 246.89841 | -.00348 | .01010 | -.20141 | -.20430 | -.20286 | .99940 | .99822 |
| 4.000 | 4.000 | -2.00000 | 4084.68335 | 246.96774 | -.00225 | -.00557 | -.20330 | -.20621 | -.20419 | 1.00290 | 1.00106 |
| 6.000 | 6.000 | -2.00000 | 4089.27725 | 246.62329 | -.01021 | -.00974 | -.19947 | -.21003 | -.20698 | 1.00175 | 1.00175 |
| 8.000 | 8.000 | -2.00000 | 4089.24741 | 246.61700 | -.01172 | -.00886 | -.19192 | -.20805 | -.20778 | .99669 | 1.00176 |
| 10.000 | 10.000 | -2.00000 | 4089.48151 | 246.64651 | -.01211 | -.01175 | -.19649 | -.20627 | -.20863 | .99483 | 1.00300 |
| 12.000 | 12.000 | -2.00000 | 4088.44775 | 246.64395 | -.01269 | -.01132 | -.19282 | -.20278 | -.20630 | .99264 | 1.00318 |
| 14.000 | 14.000 | -2.00000 | 4089.15720 | 246.60281 | -.01424 | -.01408 | -.18979 | -.20378 | -.20773 | .98130 | 1.00250 |
| 16.000 | 16.000 | -2.00000 | 4091.20270 | 246.90231 | -.01607 | -.01408 | -.18883 | -.20003 | -.20356 | .96270 | .99543 |
| 18.000 | 18.000 | -2.00000 | 4090.50607 | 246.77719 | -.02122 | -.01526 | -.18496 | -.20003 | -.20337 | .93826 | .98661 |
| 20.000 | 20.000 | -2.00000 | 4085.35325 | 246.20126 | -.02171 | -.02472 | -.19339 | -.20660 | -.21096 | .89876 | .98001 |
| 22.000 | 22.000 | -2.00000 | 4087.08173 | 246.37830 | -.01566 | -.01698 | -.21238 | -.20748 | -.21035 | .85454 | .96742 |
| 24.000 | 24.000 | -2.00000 | 4092.22760 | 245.98764 | -.00023 | -.01698 | -.25000 | -.20669 | -.20475 | .78898 | .96742 |
| GRADIENT | | .00000 | .65365 | .09473 | .00023 | -.00127 | -.00047 | .00071 | .00009 | .00076 | -.00074 |

RM/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|--------|----------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|
| .600 | .000 | -2.00000 | 2497.21130 | 542.06506 | -.09850 | .23510 | -.17411 | -.12100 | .05275 | .98597 | .99611 |
| 2.000 | 2.000 | -2.00000 | 2497.06308 | 541.90466 | .07467 | .13270 | -.17656 | -.13971 | -.01026 | .99728 | .99634 |
| 4.000 | 4.000 | -2.00000 | 2504.31854 | 542.77719 | .06432 | -.16788 | -.17682 | -.14516 | -.03568 | .99563 | .99564 |
| 6.000 | 6.000 | -2.00000 | 2502.25977 | 542.33594 | .05305 | -.14369 | -.17663 | -.15288 | -.05982 | .99691 | .99691 |
| 8.000 | 8.000 | -2.00000 | 2499.75104 | 542.02420 | .04147 | -.11705 | -.17639 | -.16202 | -.08458 | .99489 | .98759 |
| 10.000 | 10.000 | -2.00000 | 2510.79306 | 543.22000 | .04046 | -.10348 | -.17116 | -.16095 | -.09549 | .99166 | .99166 |
| 12.000 | 12.000 | -2.00000 | 2510.94400 | 543.36368 | .03812 | -.08805 | -.17114 | -.16504 | -.11035 | .98926 | .99295 |
| 14.000 | 14.000 | -2.00000 | 2503.66127 | 542.69028 | .02750 | -.07125 | -.18070 | -.17461 | -.12651 | .98181 | .98448 |
| 16.000 | 16.000 | -2.00000 | 2503.93402 | 542.80283 | .02412 | -.05814 | -.19760 | -.18251 | -.14164 | .97095 | .99340 |
| 18.000 | 18.000 | -2.00000 | 2500.93402 | 542.31900 | .01794 | -.04413 | -.22132 | -.19376 | -.15143 | .95143 | .98499 |
| 20.000 | 20.000 | -2.00000 | 2494.98662 | 541.69189 | .01293 | -.03483 | -.24224 | -.21332 | -.17343 | .92441 | .98499 |
| 22.000 | 22.000 | -2.00000 | 2503.14465 | 542.57532 | .01567 | -.03428 | -.25130 | -.22302 | -.18117 | .88030 | .97933 |
| 24.000 | 24.000 | -2.00000 | 2509.37143 | 543.35681 | .01848 | -.03430 | -.28502 | -.23598 | -.18841 | .82073 | .97003 |
| GRADIENT | | .00000 | 1.77681 | .17803 | -.00860 | -.01680 | -.00063 | -.00604 | -.01711 | .00016 | -.00012 |

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REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00 "

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
AILLRON = .000 EDFLAP = -7.170

| MACH = | ALPHA | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|-------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .500 | .0000 | .0000 | 4094.11484 | 247.20618 | -.03968 | -.09584 | -.20471 | -.24153 | -.23416 | 1.00293 | .99997 |
| 2.000 | .0000 | .0000 | 4094.92465 | 247.32278 | -.10240 | -.10240 | -.20128 | -.23342 | -.23355 | 1.00476 | 1.00131 |
| 4.000 | .0000 | .0000 | 4092.43301 | 246.98380 | -.33203 | -.05708 | -.19853 | -.23238 | -.23860 | 1.00519 | 1.00466 |
| 6.000 | .0000 | .0000 | 4094.44247 | 247.27225 | -.24333 | -.03809 | -.19313 | -.22147 | -.23021 | 1.00032 | 1.00203 |
| 8.000 | .0000 | .0000 | 4092.62842 | 247.01343 | -.2406 | -.03977 | -.19254 | -.21843 | -.23063 | .99915 | .99813 |
| 10.000 | .0000 | .0000 | 4092.36960 | 246.97372 | -.2404 | -.03605 | -.19114 | -.21594 | -.22904 | .99698 | 1.00262 |
| 12.000 | .0000 | .0000 | 4092.36197 | 247.02350 | -.02199 | -.03302 | -.18815 | -.20905 | -.22214 | .99123 | 1.00218 |
| 14.000 | .0000 | .0000 | 4092.36197 | 246.96102 | -.02254 | -.03177 | -.18391 | -.20905 | -.22093 | .99058 | .99525 |
| 16.000 | .0000 | .0000 | 4092.49921 | 247.00168 | -.02181 | -.02962 | -.17930 | -.20798 | -.21712 | .96592 | .99716 |
| 18.000 | .0000 | .0000 | 4092.95081 | 247.05661 | -.02062 | -.02939 | -.17963 | -.19999 | -.21205 | .94085 | .99404 |
| 20.000 | .0000 | .0000 | 4090.17502 | 246.67551 | -.02290 | -.02833 | -.18105 | -.20169 | -.21379 | .92473 | .99110 |
| 22.000 | .0000 | .0000 | 4093.10327 | 247.08841 | -.01775 | -.02806 | -.19249 | -.20169 | -.20803 | .86764 | .98177 |
| 24.000 | .0000 | .0000 | 4095.18353 | 247.37231 | -.01632 | -.02702 | -.20975 | -.20227 | -.20600 | .79166 | .97084 |
| GRADIENT | | | -.42045 | -.05560 | -.00230 | -.01119 | -.00155 | -.00231 | -.00111 | .00056 | .00117 |

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | QCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|-------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .600 | .0000 | .0000 | 2492.27872 | 541.01349 | .00120 | .01292 | -.19598 | -.26988 | -.24366 | .98958 | .98432 |
| 2.000 | .0000 | .0000 | 2535.13879 | 547.51376 | -.00594 | .00121 | -.18918 | -.25572 | -.24581 | 1.00167 | 1.00219 |
| 4.000 | .0000 | .0000 | 2506.12231 | 545.56604 | -.03956 | -.03956 | -.19114 | -.27343 | -.28086 | .99859 | .99769 |
| 6.000 | .0000 | .0000 | 2520.06754 | 547.80920 | -.04558 | -.04298 | -.19111 | -.25945 | -.27687 | .92740 | .93647 |
| 8.000 | .0000 | .0000 | 2526.39132 | 548.56403 | -.04408 | -.04235 | -.18795 | -.24354 | -.26656 | .95521 | .95621 |
| 10.000 | .0000 | .0000 | 2534.98624 | 549.51871 | -.03950 | -.03824 | -.18457 | -.22860 | -.25256 | .95577 | .95777 |
| 12.000 | .0000 | .0000 | 2533.68134 | 549.35165 | -.03861 | -.03748 | -.18122 | -.21787 | -.24188 | .98222 | .98446 |
| 14.000 | .0000 | .0000 | 2522.58533 | 548.21045 | -.04383 | -.04268 | -.18932 | -.21715 | -.23972 | .98266 | .98628 |
| 16.000 | .0000 | .0000 | 2525.19815 | 548.47064 | -.04264 | -.04057 | -.20134 | -.21484 | -.23200 | .97112 | .99360 |
| 18.000 | .0000 | .0000 | 2529.38464 | 548.87781 | -.03884 | -.03715 | -.21516 | -.21352 | -.22355 | .94594 | .93176 |
| 20.000 | .0000 | .0000 | 2526.75348 | 548.59781 | -.04074 | -.03861 | -.23885 | -.22444 | -.22437 | .91990 | .98693 |
| 22.000 | .0000 | .0000 | 2527.80078 | 548.81564 | -.04184 | -.04009 | -.25007 | -.23547 | -.22729 | .86646 | .97925 |
| 24.000 | .0000 | .0000 | 2531.23740 | 549.22482 | -.03970 | -.03882 | -.28138 | -.24865 | -.23090 | .80333 | .97161 |
| GRADIENT | | | 3.46090 | 1.13814 | -.01021 | -.01213 | .00121 | -.00089 | -.00930 | .00095 | .00084 |

(BE7-M81) (02 AUG 76)

PARAMETRIC DATA

BETA = 2.000 ELEVON = 15.000
AILLON = .000 BDFLAP = -7.170

TABULATED DATA - 0A161 (ARC 11-97-87-09*)
ARC 11-97-87-09* 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 775.0000 IN. Z0
SCALE = .0300

RWL = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .300 | .000 | 2.00000 | 4095.12855 | 247.36722 | .08858 | .06472 | -.20451 | -.18448 | -.35949 | 1.00350 | -.00307 |
| .000 | 2.000 | 2.00000 | 4082.81378 | 247.04141 | .17439 | -.04143 | -.20345 | -.19377 | -.32969 | 1.00057 | 1.00007 |
| 4.000 | 4.000 | 2.00000 | 4094.28510 | 247.25610 | -.02935 | -.02670 | -.20036 | -.19562 | -.29198 | 1.00217 | 1.00354 |
| 6.000 | 6.000 | 2.00000 | 4093.03870 | 247.07321 | .01683 | -.03316 | -.19875 | -.19873 | -.26912 | 1.00149 | 1.00191 |
| 8.000 | 8.000 | 2.00000 | 4094.39767 | 247.26279 | -.00893 | -.01487 | -.19407 | -.19820 | -.24895 | 1.00012 | 1.00259 |
| 10.000 | 10.000 | 2.00000 | 4094.94045 | 247.34369 | -.00451 | -.00936 | -.18934 | -.19489 | -.23247 | 1.00012 | 1.00180 |
| 12.000 | 12.000 | 2.00000 | 4090.81253 | 246.76984 | -.00576 | -.01245 | -.18674 | -.19908 | -.22844 | 1.00361 | 1.00361 |
| 14.000 | 14.000 | 2.00000 | 4094.13782 | 247.11044 | -.01298 | -.01861 | -.18268 | -.20125 | -.22737 | 1.00142 | 1.00358 |
| 16.000 | 16.000 | 2.00000 | 4094.01319 | 246.99081 | -.02615 | -.02540 | -.18268 | -.20174 | -.22607 | 1.00142 | 1.00358 |
| 18.000 | 18.000 | 2.00000 | 4098.61813 | 246.99081 | -.02615 | -.02389 | -.17896 | -.20033 | -.22258 | 1.00142 | 1.00358 |
| 20.000 | 20.000 | 2.00000 | 4092.53760 | 247.00217 | -.02031 | -.02617 | -.18559 | -.20045 | -.21850 | 1.00142 | 1.00358 |
| 22.000 | 22.000 | 2.00000 | 4093.15781 | 247.08237 | -.02655 | -.02738 | -.19632 | -.20182 | -.21460 | 1.00142 | 1.00358 |
| 24.000 | 24.000 | 2.00000 | 4091.65585 | 246.87875 | -.02132 | -.02711 | -.22240 | -.21030 | -.21417 | 1.00142 | 1.00358 |
| GRADIENT | | .00000 | -.21055 | -.02778 | -.00894 | -.03135 | .00104 | -.00278 | .01938 | -.00033 | .00012 |

RWL = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|--------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | 2.00000 | 2525.43981 | 548.01419 | -.02623 | -.02461 | -.19327 | -.23160 | -.22951 | 1.00516 | 1.00745 |
| .000 | 2.000 | 2.00000 | 2532.98480 | 549.27618 | -.02798 | -.02598 | -.19226 | -.23310 | -.22612 | 1.00723 | 1.00716 |
| 4.000 | 4.000 | 2.00000 | 2522.34305 | 548.39687 | -.03922 | -.03374 | -.19459 | -.22631 | -.23243 | 1.00843 | 1.00716 |
| 6.000 | 6.000 | 2.00000 | 2522.34369 | 548.53568 | -.04343 | -.03733 | -.19004 | -.22059 | -.22995 | 1.00994 | 1.00820 |
| 8.000 | 8.000 | 2.00000 | 2534.44469 | 549.82809 | -.03912 | -.03438 | -.18231 | -.20898 | -.21975 | 1.00594 | 1.00534 |
| 10.000 | 10.000 | 2.00000 | 2530.59875 | 549.43701 | -.04233 | -.02757 | -.18265 | -.20621 | -.21759 | 1.00565 | 1.00565 |
| 12.000 | 12.000 | 2.00000 | 2528.78778 | 549.21756 | -.04528 | -.04010 | -.18297 | -.20408 | -.21456 | 1.00596 | 1.00596 |
| 14.000 | 14.000 | 2.00000 | 2529.93558 | 549.33807 | -.04516 | -.04219 | -.19113 | -.20353 | -.21233 | 1.00524 | 1.00524 |
| 16.000 | 16.000 | 2.00000 | 2536.91565 | 550.33807 | -.04303 | -.03752 | -.19775 | -.20353 | -.20231 | 1.00515 | 1.00515 |
| 18.000 | 18.000 | 2.00000 | 2537.34454 | 550.15671 | -.04222 | -.03680 | -.19775 | -.20691 | -.20504 | 1.00533 | 1.00533 |
| 20.000 | 20.000 | 2.00000 | 2535.37787 | 549.99299 | -.04455 | -.04159 | -.21423 | -.20691 | -.20504 | 1.00533 | 1.00533 |
| 22.000 | 22.000 | 2.00000 | 2531.03384 | 549.56992 | -.04734 | -.04159 | -.23283 | -.21727 | -.21623 | 1.00533 | 1.00533 |
| 24.000 | 24.000 | 2.00000 | 2525.60913 | 549.07547 | -.05033 | -.04800 | -.23326 | -.22661 | -.21623 | 1.00533 | 1.00533 |
| GRADIENT | | .00000 | -.27419 | -.09317 | -.00325 | -.00228 | -.00033 | -.00132 | -.00078 | -.00022 | -.00001 |

ORIGINAL PAGE IS
OF POOR QUALITY

TABULATED DATA - 0A161 (ARC 11-97-87-894)
ARC 11-97-87-894 0A161 ORBITER + PROBES.

PARAMETRIC DATA

BETA = 5.000 ELEVON = 15.000
AILLON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SOL.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RM/L = 3.91 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|---------|------------|-----------|----------|------------|---------|----------|----------|---------|---------|
| .360 | .000 | 5.00000 | 4091.90802 | 246.81638 | -4.69720 | -13.31208 | -396537 | -4.32163 | -4.05173 | 1.00649 | 1.00469 |
| 2.000 | .000 | 5.00000 | 4097.52972 | 247.46554 | -3.39713 | -13.694755 | -363553 | -3.29850 | -3.78135 | 1.00223 | 1.00226 |
| 4.000 | .000 | 5.00000 | 4098.69237 | 247.61035 | -2.48801 | -5.0E74.3 | -335453 | -2.55588 | -3.39874 | .58419 | .99226 |
| 6.000 | .000 | 5.00000 | 4093.69952 | 247.12616 | -1.89089 | -3.5E328 | -32144 | -2.01555 | -3.01620 | 1.0012E | .99715 |
| 8.000 | .000 | 5.00000 | 4091.92636 | 246.90237 | -1.35059 | -2.5E970 | -29370 | -1.58222 | -2.62616 | 1.00069 | 1.00069 |
| 10.000 | .000 | 5.00000 | 4095.28748 | 247.57520 | -1.00538 | -2.70782 | -26996 | -1.26568 | -2.27017 | .99674 | .99759 |
| 12.000 | .000 | 5.00000 | 4098.65168 | 247.57520 | -1.74578 | -2.0782 | -24323 | -1.01395 | -1.94618 | .99877 | .99877 |
| 14.000 | .000 | 5.00000 | 4100.06610 | 247.73621 | -1.56343 | -1.71131 | -23235 | -.83168 | -1.66750 | .97757 | .99813 |
| 16.000 | .000 | 5.00000 | 4100.09558 | 247.72003 | -1.42749 | -1.39563 | -22595 | -.69338 | -1.42862 | .96187 | .99449 |
| 18.000 | .000 | 5.00000 | 4098.44456 | 247.61750 | -1.2317 | -1.12317 | -22244 | -.58458 | -1.22141 | .93659 | .99082 |
| 20.000 | .000 | 5.00000 | 4094.74744 | 247.19492 | -1.075 | -1.0156 | -22516 | -.50175 | -1.04238 | .90093 | .98744 |
| 22.000 | .000 | 5.00000 | 4091.30930 | 246.86115 | -1.19493 | -1.1629 | -22789 | -.43977 | -.86663 | .84549 | .98499 |
| 24.000 | .000 | 5.00000 | 4091.71375 | 246.84882 | -1.15478 | -.58194 | -23913 | -.39745 | -.76975 | .76801 | .97610 |
| GRADIENT | | .00000 | 1.69621 | .19849 | .55355 | 2.08116 | .01273 | -.44144 | .16325 | -.08308 | -.00143 |

RM/L = 4.21 GRADIENT INTERVAL = -5.004 5.00

| MACH | ALPHA | BETA | PT | OCOMP | PT1/OC | PT2/OC | PT3/OC | PT4/OC | PT5/OC | PT6/OC | PT7/OC |
|----------|-------|---------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| .600 | .000 | 5.00000 | 2535.04525 | 549.55294 | -.01817 | .03782 | -.19772 | -.22605 | -.21944 | .99479 | .99510 |
| 2.000 | .000 | 5.00000 | 2530.24927 | 549.34756 | -.02498 | .04638 | -.19541 | -.22031 | -.21744 | .99521 | .99463 |
| 4.000 | .000 | 5.00000 | 2525.68387 | 548.84946 | -.02721 | -.03310 | -.19536 | -.21345 | -.21288 | .99766 | .99495 |
| 6.000 | .000 | 5.00000 | 2521.55971 | 548.43066 | -.03338 | -.01550 | -.19657 | -.21268 | -.21185 | .99505 | .99602 |
| 8.000 | .000 | 5.00000 | 2535.78415 | 548.79788 | -.03834 | -.06510 | -.18533 | -.20718 | -.21171 | .99507 | .99503 |
| 10.000 | .000 | 5.00000 | 2533.28285 | 549.56177 | -.03834 | -.02967 | -.18754 | -.20590 | -.21100 | .99458 | .99518 |
| 12.000 | .000 | 5.00000 | 2530.73212 | 549.80759 | -.04067 | -.03300 | -.18445 | -.20176 | -.20919 | .99734 | .99265 |
| 14.000 | .000 | 5.00000 | 2530.6117 | 549.39413 | -.04359 | -.03524 | -.18445 | -.20462 | -.20769 | .97761 | .99207 |
| 16.000 | .000 | 5.00000 | 2530.39977 | 549.30560 | -.04359 | -.03635 | -.20919 | -.20815 | -.20574 | .96392 | .99223 |
| 18.000 | .000 | 5.00000 | 2537.74243 | 550.09525 | -.04013 | -.03782 | -.21172 | -.20831 | -.20596 | .94116 | .99011 |
| 20.000 | .000 | 5.00000 | 2537.74243 | 550.09372 | -.04158 | -.03988 | -.22321 | -.21303 | -.20650 | .89897 | .98647 |
| 22.000 | .000 | 5.00000 | 2535.28123 | 549.78516 | -.04336 | -.04087 | -.23168 | -.22374 | -.21451 | .82456 | .98157 |
| 24.000 | .000 | 5.00000 | 2534.79544 | 549.85071 | -.04600 | -.04408 | -.27299 | -.23762 | -.22214 | .75225 | .97316 |
| GRADIENT | | .00000 | -2.34333 | -.27986 | -.00226 | -.01003 | .00059 | -.00915 | .00184 | -.00072 | -.00069 |

(067838) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES.

PARAMETRIC DATA

BETA = -8.000' ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RM/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/0C | 066/0C | DPT075 | DPT066 | DPT075 | DPT066 | DPO065 |
|----------|-------|----------|------------|------------|-----------|--------|---------|---------|---------|---------|---------|---------|
| 3.000 | .000 | -8.00000 | 4123.09033 | 3679.05209 | 258.09027 | .98969 | .93747 | -.00322 | -.00715 | -.00322 | -.00715 | -.02965 |
| 2.000 | .000 | -8.00000 | 4124.91620 | 3675.47940 | 249.43682 | .92079 | .95494 | -.00346 | -.00376 | -.00346 | -.00376 | -.04345 |
| 4.000 | .000 | -8.00000 | 4124.69104 | 3875.28943 | 249.40161 | .91623 | .94357 | -.00751 | -.00503 | -.00751 | -.00503 | -.05478 |
| 6.000 | .000 | -8.00000 | 4124.73590 | 3875.32263 | 249.41327 | .92442 | .94345 | -.00694 | -.00871 | -.00694 | -.00871 | -.05323 |
| 8.000 | .000 | -8.00000 | 4124.93939 | 3875.51498 | 249.42444 | .93307 | .94349 | -.00729 | -.00816 | -.00729 | -.00816 | -.05173 |
| 10.000 | .000 | -8.00000 | 4124.15399 | 3872.94339 | 249.42106 | .93424 | .94610 | -.00547 | -.01387 | -.00547 | -.01387 | -.04310 |
| 12.000 | .000 | -8.00000 | 4124.91528 | 3875.48770 | 249.42761 | .93776 | .95180 | -.00026 | -.01478 | -.00026 | -.01478 | -.03585 |
| 14.000 | .000 | -3.00000 | 4122.22295 | 3875.18427 | 249.42761 | .89332 | .97815 | -.00598 | -.02844 | -.00598 | -.02844 | -.00510 |
| 16.000 | .000 | -8.00000 | 4124.58313 | 3875.18427 | 249.39886 | .86331 | .92706 | -.01211 | -.03875 | -.01211 | -.03875 | -.03579 |
| 18.000 | .000 | -8.00000 | 4124.36975 | 3873.13961 | 249.23114 | .84148 | .99603 | -.01336 | -.06353 | -.01336 | -.06353 | -.05954 |
| 20.000 | .000 | -8.00000 | 4124.34033 | 3874.96457 | 249.57579 | .80960 | 1.00790 | -.02058 | -.09142 | -.02058 | -.09142 | -.09926 |
| 22.000 | .000 | -8.00000 | 4122.51056 | 3873.27280 | 249.23779 | .77560 | 1.01074 | -.02843 | -.13681 | -.02843 | -.13681 | -.14713 |
| 24.000 | .000 | -8.00000 | 4123.82751 | 3874.48828 | 249.33923 | .72747 | 1.00296 | -.05262 | -.19881 | -.05262 | -.19881 | -.20176 |
| GRADIENT | | .00000 | -1.09981 | -.94067 | -.15916 | .00164 | .00152 | -.00107 | -.00053 | -.00107 | -.00053 | -.00119 |

RM/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/0C | 066/0C | DPT075 | DPT066 | DPT075 | DPT066 | DPO065 |
|--------|-------|----------|------------|------------|-----------|--------|--------|---------|---------|---------|---------|---------|
| 3.000 | .000 | -8.00000 | 2529.47873 | 1982.61595 | 946.86279 | .91225 | .95640 | -.01895 | -.02053 | -.01895 | -.02053 | -.04801 |
| 2.000 | .000 | -8.00000 | 2511.08112 | 1966.36711 | 544.71402 | .92212 | .95241 | -.01141 | -.01115 | -.01141 | -.01115 | -.03682 |
| 4.000 | .000 | -8.00000 | 2514.69373 | 1959.52137 | 544.63434 | .92947 | .95280 | -.01001 | -.01101 | -.01001 | -.01101 | -.03653 |
| 6.000 | .000 | -8.00000 | 2512.54620 | 1967.75583 | 544.72299 | .92726 | .94922 | -.00973 | -.01152 | -.00973 | -.01152 | -.04197 |
| 8.000 | .000 | -8.00000 | 2513.75279 | 1958.71571 | 544.79037 | .93789 | .95360 | -.00977 | -.01111 | -.00977 | -.01111 | -.03755 |
| 10.000 | .000 | -8.00000 | 2515.87339 | 1971.45058 | 545.03708 | .94534 | .94565 | -.00813 | -.01376 | -.00813 | -.01376 | -.04371 |
| 12.000 | .000 | -8.00000 | 2517.90707 | 1972.36116 | 545.54593 | .94345 | .95508 | -.00939 | -.01912 | -.00939 | -.01912 | -.02791 |
| 14.000 | .000 | -8.00000 | 2514.71823 | 1959.67972 | 545.03851 | .92073 | .95776 | -.01098 | -.02529 | -.01098 | -.02529 | -.03792 |
| 16.000 | .000 | -8.00000 | 2507.01141 | 1962.70595 | 544.30548 | .85887 | .90447 | -.01315 | -.03722 | -.01315 | -.03722 | -.05141 |
| 18.000 | .000 | -8.00000 | 2513.52756 | 1968.36823 | 545.15953 | .82574 | .90447 | -.01766 | -.07000 | -.01766 | -.07000 | -.03563 |
| 20.000 | .000 | -8.00000 | 2520.12943 | 1974.29993 | 545.82953 | .77981 | .91356 | -.02323 | -.10271 | -.02323 | -.10271 | -.00810 |
| 22.000 | .000 | -8.00000 | 2522.69769 | 1976.55684 | 546.13086 | .73211 | .91532 | -.03417 | -.14650 | -.03417 | -.14650 | -.05359 |
| 24.000 | .000 | -8.00000 | -4.52492 | -3.95781 | -.65711 | .00431 | .00424 | -.00223 | -.00238 | -.00223 | -.00238 | -.00237 |

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = -5.000 ELEVON = .000
 AIRLON = .000 SCFLAP = -7.170

RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .300 | BETA | | PT | P | OCOMP | Q75/QC | Q66/QC | DPT075 | DPT066 | DP075 | DP066 |
|----------|--------|----------|------------|------------|-----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA | .000 | -5.00000 | 4113.57965 | 3870.79816 | 248.78149 | 249.35577 | 94823 | 97850 | -.00003 | -.00550 | -.03457 | -.01648 |
| | 2.000 | -5.00000 | 4123.57532 | 3874.21957 | 249.35577 | 249.35577 | 53310 | 95980 | -.00356 | -.00190 | -.05914 | -.02924 |
| | 4.000 | -5.00000 | 4121.73639 | 3872.64182 | 249.09460 | 249.09460 | 93810 | 97510 | -.00463 | -.00479 | -.05556 | -.02076 |
| | 6.000 | -5.00000 | 4121.43103 | 3872.42984 | 249.06122 | 249.06122 | 94455 | 97257 | -.00163 | -.00154 | -.05556 | -.01796 |
| | 8.000 | -5.00000 | 4121.81604 | 3872.72128 | 249.09479 | 249.09479 | 95411 | 97179 | -.00155 | -.00000 | -.04986 | -.02004 |
| | 10.000 | -5.00000 | 4119.14974 | 3870.26093 | 248.83762 | 248.83762 | 94995 | 96229 | -.00156 | -.00276 | -.03113 | -.03443 |
| | 12.000 | -5.00000 | 4118.78351 | 3869.95828 | 248.85522 | 248.85522 | 93093 | 97083 | -.00202 | -.01143 | -.07218 | -.01862 |
| | 14.000 | -5.00000 | 4118.52954 | 3869.69380 | 248.83374 | 248.83374 | 91255 | 98819 | -.00218 | -.01874 | -.09366 | -.00679 |
| | 16.000 | -5.00000 | 4121.14709 | 3872.09952 | 249.04761 | 249.04761 | 89983 | 1.00855 | -.00160 | -.01399 | -.12221 | -.00997 |
| | 18.000 | -5.00000 | 4121.60559 | 3872.54218 | 249.06342 | 249.06342 | 86109 | 1.02090 | -.00716 | -.05128 | -.15417 | -.00715 |
| | 20.000 | -5.00000 | 4121.58350 | 3872.43271 | 249.15082 | 249.15082 | 82250 | 1.02359 | -.01568 | -.05440 | -.15613 | -.12922 |
| | 22.000 | -5.00000 | 4122.00201 | 3872.86795 | 249.13409 | 249.13409 | 77957 | 1.03745 | -.02331 | -.05440 | -.25478 | -.15940 |
| | 24.000 | -5.00000 | 4120.84576 | 3871.79938 | 249.04539 | 249.04539 | 74806 | 1.03546 | -.04128 | -.16477 | -.29261 | -.21901 |
| GRADIENT | | .00000 | .53923 | .46094 | .07828 | .07828 | -.00253 | -.00095 | -.00010 | -.00018 | -.00275 | -.00107 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | .600 | BETA | | PT | P | OCOMP | Q75/QC | Q66/QC | DPT075 | DPT066 | DP075 | DP066 |
|----------|--------|----------|------------|------------|-----------|-----------|---------|---------|---------|---------|---------|---------|
| ALPHA | .000 | -5.00000 | 2506.31174 | 1962.16986 | 544.14188 | 544.14188 | 94851 | 96380 | -.00252 | -.00672 | -.05177 | -.00975 |
| | 2.000 | -5.00000 | 2506.26218 | 1962.16408 | 544.09811 | 544.09811 | 94074 | 97458 | -.00538 | -.00679 | -.05662 | -.01929 |
| | 4.000 | -5.00000 | 2511.81845 | 1967.11473 | 544.70374 | 544.70374 | 93987 | 97917 | -.00573 | -.00850 | -.05825 | -.01372 |
| | 6.000 | -5.00000 | 2509.66660 | 1965.10603 | 544.56058 | 544.56058 | 94628 | 98219 | -.00200 | -.00828 | -.05157 | -.00966 |
| | 8.000 | -5.00000 | 2511.31799 | 1966.64787 | 544.67014 | 544.67014 | 95690 | 97447 | -.00310 | -.00826 | -.04194 | -.01734 |
| | 10.000 | -5.00000 | 2512.78818 | 1968.01511 | 544.77307 | 544.77307 | 95524 | 95999 | -.00485 | -.01182 | -.04201 | -.02936 |
| | 12.000 | -5.00000 | 2509.95386 | 1955.34454 | 544.60922 | 544.60922 | 94376 | 97457 | -.00600 | -.01647 | -.03359 | -.00962 |
| | 14.000 | -5.00000 | 2514.28763 | 1959.15411 | 545.13351 | 545.13351 | 94244 | 97092 | -.00716 | -.02254 | -.07622 | -.00741 |
| | 16.000 | -5.00000 | 2521.94302 | 1976.00002 | 545.94302 | 545.94302 | 89609 | 95111 | -.00911 | -.03039 | -.10684 | -.02101 |
| | 18.000 | -5.00000 | 2517.48352 | 1972.03178 | 545.45175 | 545.45175 | 85787 | 93477 | -.01471 | -.04445 | -.13753 | -.02333 |
| | 20.000 | -5.00000 | 2515.42865 | 1970.18526 | 545.24341 | 545.24341 | 83148 | 94033 | -.01999 | -.05552 | -.18268 | -.00172 |
| | 22.000 | -5.00000 | 2517.02257 | 1971.63252 | 545.41806 | 545.41806 | 79329 | 94849 | -.03228 | -.09751 | -.23154 | -.04320 |
| | 24.000 | -5.00000 | 2512.80313 | 1967.85872 | 544.94443 | 544.94443 | 75311 | 93795 | -.04465 | -.14610 | -.28297 | -.07596 |
| GRADIENT | | .00000 | 1.37567 | 1.23623 | .14046 | .14046 | -.00216 | -.00141 | -.00060 | -.00047 | -.00162 | -.00099 |

PARAMETRIC DATA

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
A-ILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2698.0000 SQ.FT. YMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 3.98 GRADIENT INTERVAL = -5.004 5.00

| MACH = | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DPT075 | DPT066 | DPT075 | DPT066 | DP075 | DP066 |
|----------|-------|----------|------------|------------|-----------|---------|---------|---------|---------|--------|--------|--------|--------|
| .300 | .000 | -2.00000 | 4121.05066 | 3872.04562 | 249.00507 | .94306 | .99603 | -.00341 | -.00853 | .05697 | .01251 | .05697 | .01251 |
| 2.000 | .000 | -2.00000 | 4127.24060 | 3877.55872 | 249.68188 | .93571 | .98919 | -.00017 | -.00128 | .06740 | .00955 | .06740 | .00955 |
| 4.000 | .000 | -2.00000 | 4127.63379 | 3877.91748 | 249.71631 | .93368 | .99768 | .00068 | -.00195 | .07110 | .00936 | .07110 | .00936 |
| 6.000 | .000 | -2.00000 | 4127.47223 | 3877.76532 | 249.70691 | .93653 | .98376 | -.00016 | -.00040 | .06109 | .01611 | .06109 | .01611 |
| 8.000 | .000 | -2.00000 | 4125.35101 | 3875.94351 | 249.40753 | .94405 | .96546 | .00182 | -.00005 | .05602 | .03573 | .05602 | .03573 |
| 10.000 | .000 | -2.00000 | 4125.09515 | 3875.72934 | 249.36584 | .94697 | .95329 | .00002 | -.00146 | .05337 | .04735 | .05337 | .04735 |
| 12.000 | .000 | -2.00000 | 4127.15957 | 3877.49863 | 249.66997 | .94168 | .97588 | .00144 | -.00773 | .06649 | .01696 | .06649 | .01696 |
| 14.000 | .000 | -2.00000 | 4127.72009 | 3877.98013 | 249.73899 | .94270 | .98192 | .00085 | -.01353 | .06649 | .02539 | .06649 | .02539 |
| 16.000 | .000 | -2.00000 | 4125.48828 | 3876.07739 | 249.41089 | .96002 | 1.01733 | -.00610 | -.02758 | .17870 | .04461 | .17870 | .04461 |
| 18.000 | .000 | -2.00000 | 4127.15497 | 3877.49768 | 249.65729 | .94607 | 1.03735 | -.01124 | -.04537 | .19336 | .08157 | .19336 | .08157 |
| 20.000 | .000 | -2.00000 | 4126.50238 | 3876.97098 | 249.53143 | .96701 | 1.04566 | -.01581 | -.07497 | .19336 | .11864 | .19336 | .11864 |
| 22.000 | .000 | -2.00000 | 4122.64178 | 3873.43033 | 249.21149 | .81334 | 1.06059 | -.02749 | -.11586 | .20200 | .17298 | .20200 | .17298 |
| 24.000 | .000 | -2.00000 | 4121.59155 | 3872.40952 | 249.18207 | .78117 | 1.03255 | -.03587 | -.17757 | .28808 | .20910 | .28808 | .20910 |
| GRADIENT | | .00000 | 1.64579 | 1.46798 | .17781 | -.00234 | .00042 | .00087 | -.00262 | .00363 | .00363 | .00363 | .00363 |

| MACH = | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DPT075 | DPT066 | DP075 | DP066 | | |
|----------|-------|----------|------------|------------|-----------|---------|--------|---------|---------|--------|--------|--------|--------|
| .600 | .000 | -2.00000 | 2501.29996 | 1957.66508 | 543.63489 | .94998 | .98904 | -.00360 | -.00660 | .04905 | .00448 | .04905 | .00448 |
| 2.000 | .000 | -2.00000 | 2511.32452 | 1956.74513 | 544.57981 | .94079 | .99134 | -.00449 | -.00352 | .05896 | .00522 | .05896 | .00522 |
| 4.000 | .000 | -2.00000 | 2512.74292 | 1957.94153 | 544.80139 | .94079 | .99865 | -.00385 | -.00419 | .05809 | .00284 | .05809 | .00284 |
| 6.000 | .000 | -2.00000 | 2512.11310 | 1957.36555 | 544.74756 | .94398 | .98475 | -.00578 | -.00430 | .05021 | .01119 | .05021 | .01119 |
| 8.000 | .000 | -2.00000 | 2517.33130 | 1971.99902 | 545.34128 | .94331 | .96570 | -.00496 | -.00589 | .05614 | .02953 | .05614 | .02953 |
| 10.000 | .000 | -2.00000 | 2514.05701 | 1969.06721 | 544.98981 | .94187 | .95416 | -.00550 | -.00897 | .05613 | .03915 | .05613 | .03915 |
| 12.000 | .000 | -2.00000 | 2508.66873 | 1964.19490 | 544.47385 | .94224 | .98249 | -.00480 | -.00895 | .07846 | .00084 | .07846 | .00084 |
| 14.000 | .000 | -2.00000 | 2515.03925 | 1959.84264 | 545.19662 | .92176 | .98377 | -.00543 | -.01566 | .11642 | .00084 | .11642 | .00084 |
| 16.000 | .000 | -2.00000 | 2518.78275 | 1973.21881 | 545.55393 | .88863 | .96910 | -.00890 | -.02579 | .15339 | .00359 | .15339 | .00359 |
| 18.000 | .000 | -2.00000 | 2515.10529 | 1959.86589 | 545.23841 | .85679 | .95723 | -.01376 | -.04130 | .17619 | .00359 | .17619 | .00359 |
| 20.000 | .000 | -2.00000 | 2515.90900 | 1970.60928 | 545.29971 | .83757 | .95569 | -.02465 | -.06376 | .19192 | .00284 | .19192 | .00284 |
| 22.000 | .000 | -2.00000 | 2516.35815 | 1971.02711 | 545.33105 | .82199 | .96332 | -.03621 | -.10076 | .28360 | .00284 | .28360 | .00284 |
| 24.000 | .000 | -2.00000 | 2514.59457 | 1959.37999 | 545.21460 | .79377 | .95183 | -.03621 | -.16479 | .28360 | .00284 | .28360 | .00284 |
| GRADIENT | | .00000 | 2.86074 | 2.56911 | .29163 | -.00230 | .00248 | .00086 | -.00060 | .00251 | .00251 | .00251 | .00251 |

ORIGINAL PAGE IS
OF POOR QUALITY

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = .000 ELEVON = .000
 AIRLON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RNVL = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DPT075 | DPT066 | DP075 | DP066 |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .300 | .000 | .00000 | 4125.41028 | 3876.67133 | 249.73895 | .93310 | .97698 | -.00721 | .00543 | .06449 | .02899 |
| 2.000 | .000 | .00000 | 4122.70245 | 3873.51007 | 249.19238 | .93295 | .97837 | -.00042 | -.00158 | .07145 | .02053 |
| 4.000 | .000 | .00000 | 4119.92072 | 3870.95203 | 248.96869 | .92837 | 1.00171 | -.09006 | -.00042 | .07709 | -.00213 |
| 6.000 | .000 | .00000 | 4122.39331 | 3973.22900 | 249.1831 | .92970 | .98981 | .06162 | .00027 | .07724 | .00548 |
| 8.000 | .000 | .00000 | 4122.70056 | 3873.52737 | 249.7322 | .93837 | .98479 | .00024 | -.00313 | .06592 | .01646 |
| 10.000 | .000 | .00000 | 4120.16510 | 3871.18869 | 248.57644 | .94789 | .96961 | .00004 | -.00165 | .05502 | .02363 |
| 12.000 | .000 | .00000 | 4120.08938 | 3871.10510 | 249.48328 | .94422 | .97115 | .00018 | -.00474 | .05922 | .02497 |
| 14.000 | .000 | .00000 | 4120.50262 | 3871.47339 | 249.02924 | .93570 | .98522 | .00008 | -.01226 | .06880 | .04480 |
| 16.000 | .000 | .00000 | 4120.01282 | 3871.03391 | 248.97894 | .92025 | 1.00787 | -.00324 | -.02358 | .08332 | -.03139 |
| 18.000 | .000 | .00000 | 4120.13165 | 3871.4069 | 248.99697 | .89107 | 1.03540 | -.00559 | -.04337 | .11675 | -.07255 |
| 20.000 | .000 | .00000 | 4119.52338 | 3870.60745 | 248.91595 | .85297 | 1.05824 | -.01130 | -.06800 | .16108 | -.12304 |
| 22.000 | .000 | .00000 | 4121.31134 | 3872.19284 | 249.11853 | .82779 | 1.06187 | -.02963 | -.11524 | .18240 | -.17348 |
| 24.000 | .000 | .00000 | 4122.39026 | 3873.14450 | 249.24579 | .80203 | 1.04029 | -.03366 | -.17844 | .21317 | -.21516 |
| GRADIENT | | | -1.62236 | -1.42981 | -1.19257 | -.08118 | .00618 | .00179 | -.00146 | .00335 | -.00778 |

RNVL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DPT075 | DPT066 | DP075 | DP066 |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .500 | .000 | .00000 | 2495.62769 | 1952.89360 | 542.73410 | .94940 | .97833 | .00048 | -.00125 | .05377 | .02690 |
| 2.000 | .000 | .00000 | 2511.31277 | 1966.73986 | 544.57352 | .93541 | .98381 | -.00440 | -.00271 | .06465 | .01375 |
| 4.000 | .000 | .00000 | 2507.01227 | 1962.82555 | 544.18674 | .93232 | 1.08108 | .00561 | -.00462 | .06698 | -.00570 |
| 6.000 | .000 | .00000 | 2504.08737 | 1960.27747 | 543.80991 | .93387 | 1.10227 | .00625 | .00511 | .06456 | -.00738 |
| 8.000 | .000 | .00000 | 2507.69663 | 1963.56752 | 544.12918 | .94078 | .98783 | -.00596 | -.00585 | .05698 | .00647 |
| 10.000 | .000 | .00000 | 2511.66223 | 1967.06786 | 544.59464 | .95000 | .98164 | .00280 | -.00540 | .04953 | .01330 |
| 12.000 | .000 | .00000 | 2516.29508 | 1971.58182 | 545.34894 | .94522 | .98189 | -.00401 | -.00991 | .05395 | .00857 |
| 14.000 | .000 | .00000 | 2516.71591 | 1971.06151 | 545.23459 | .94432 | .98285 | -.00388 | -.01349 | .05509 | .00396 |
| 16.000 | .000 | .00000 | 2519.31281 | 1973.76817 | 545.54421 | .93057 | .98638 | .00714 | -.02342 | .06747 | .01138 |
| 18.000 | .000 | .00000 | 2522.01395 | 1976.05576 | 545.54465 | .90195 | .98538 | -.00959 | -.04250 | .08912 | .03446 |
| 20.000 | .000 | .00000 | 2520.69785 | 1974.78084 | 545.95819 | .88660 | .99893 | .01339 | -.06761 | .14060 | .02478 |
| 22.000 | .000 | .00000 | 2511.39388 | 1966.55000 | 544.84381 | .87278 | .97278 | .02102 | -.10939 | .16626 | -.08141 |
| 24.000 | .000 | .00000 | 2.84615 | 2.48299 | 36316 | .81475 | .96680 | -.03383 | -.17753 | .19355 | -.14318 |
| GRADIENT | | | 2.84615 | 2.48299 | 36316 | -.00427 | .00569 | -.00152 | -.09084 | .00330 | -.00656 |

(GE7842) (02 AUG 76)

TABLATED DATA - OA161 (ARC 11-97-87-094)
ARC 11-97-87-094 OA161 ORBITER + PROBES.

PARAMETRIC DATA

BETA = 2.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0360

RNVL = 3.9E GRADIENT INTERVAL = -5.007 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 07540C | 06640C | DPT075 | DPT066 | DP075 | DP066 |
|--------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .300 | .000 | 2.00000 | 4115.48804 | 3867.03473 | 248.44531 | .93655 | .96258 | -.00406 | .90669 | .06141 | .04567 |
| 2.000 | .000 | 2.00000 | 4114.81775 | 3866.46124 | 248.36651 | .95650 | .98008 | .00304 | -.00007 | .07085 | .02025 |
| 4.000 | .000 | 2.00000 | 4114.38245 | 3866.06400 | 248.31848 | .92854 | 1.00962 | .00008 | .00147 | .07403 | -.00886 |
| 6.000 | .000 | 2.00000 | 4114.84680 | 3866.49384 | 248.35297 | .93061 | 1.00679 | .00013 | -.00008 | .07469 | -.08682 |
| 8.000 | .000 | 2.00000 | 4113.08344 | 3864.81985 | 248.26361 | .93805 | 1.00531 | -.00009 | -.00055 | .06994 | -.00584 |
| 10.000 | .000 | 2.00000 | 4112.39331 | 3864.17383 | 248.21918 | .94657 | .97111 | -.00154 | -.00327 | .05480 | .02648 |
| 12.000 | .000 | 2.00000 | 4110.27911 | 3862.33542 | 247.94373 | .96875 | .96835 | -.00091 | -.00306 | .05311 | .02856 |
| 14.000 | .000 | 2.00000 | 4113.91693 | 3865.68948 | 248.22748 | .95235 | .97680 | .00311 | -.01108 | .05314 | .01268 |
| 16.000 | .000 | 2.00000 | 4115.94379 | 3867.40469 | 248.53812 | .94933 | .99851 | -.00313 | -.02450 | .05135 | -.02390 |
| 18.000 | .000 | 2.00000 | 4119.10223 | 3870.18747 | 248.91479 | .94594 | 1.03730 | -.00697 | -.04067 | .06266 | -.07663 |
| 20.000 | .000 | 2.00000 | 4122.01495 | 3872.79608 | 249.21687 | .87547 | 1.05317 | -.01704 | -.06636 | .08418 | -.12638 |
| 22.000 | .000 | 2.00000 | 4117.24534 | 3868.59497 | 248.65137 | .84385 | 1.03407 | -.03076 | -.17400 | .15429 | -.16898 |
| 24.000 | .000 | 2.00000 | -.27441 | -.24268 | -.03171 | -.00250 | .01176 | -.00103 | -.00131 | .00391 | -.01341 |

RNVL = 4.25 GRADIENT INTERVAL = -5.067 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 07540C | 06640C | DPT075 | DPT066 | DP075 | DP066 |
|--------|-------|---------|------------|------------|-----------|--------|---------|---------|---------|--------|---------|
| .600 | .000 | 2.00000 | 2511.72870 | 1967.34569 | 544.38303 | .94102 | .97152 | -.00195 | -.00264 | .06072 | .02667 |
| 2.000 | .000 | 2.00000 | 2517.44931 | 1972.01730 | 545.43201 | .93991 | .98731 | -.00284 | -.00364 | .06129 | .00922 |
| 4.000 | .000 | 2.00000 | 2521.57040 | 1975.62624 | 545.94418 | .93197 | 1.00154 | -.00294 | -.00309 | .07009 | -.08464 |
| 6.000 | .000 | 2.00000 | 2515.75699 | 1970.71048 | 545.04642 | .93495 | 1.00536 | -.00237 | -.00387 | .06624 | -.00921 |
| 8.000 | .000 | 2.00000 | 2545.28705 | 1993.36383 | 551.92322 | .94052 | .00156 | -.00431 | -.00386 | .05893 | -.08541 |
| 10.000 | .000 | 2.00000 | 2543.39755 | 1991.80594 | 551.33798 | .94441 | .97996 | -.00504 | -.00628 | .05382 | .0417 |
| 12.000 | .000 | 2.00000 | 2545.79668 | 1993.84122 | 551.95847 | .94687 | .98130 | -.00516 | -.00970 | .05095 | .00936 |
| 14.000 | .000 | 2.00000 | 2547.21573 | 1995.13454 | 552.08121 | .94478 | .99590 | -.00429 | -.01536 | .05417 | .00932 |
| 16.000 | .000 | 2.00000 | 2543.26960 | 1991.55782 | 551.73980 | .94644 | .95990 | -.00608 | -.02893 | .05050 | .01344 |
| 18.000 | .000 | 2.00000 | 2551.08099 | 1993.48152 | 552.59949 | .94396 | .95244 | -.00901 | -.04731 | .05036 | -.03652 |
| 20.000 | .000 | 2.00000 | 2551.13522 | 1996.45233 | 552.68288 | .92052 | .97163 | -.01233 | -.07284 | .07433 | -.09166 |
| 22.000 | .000 | 2.00000 | 2544.39563 | 1992.52005 | 551.87598 | .89052 | .96011 | -.03003 | -.12087 | .14457 | -.15767 |
| 24.000 | .000 | 2.00000 | 2.46045 | 2.07015 | -.39029 | .00791 | .00791 | -.00024 | -.00011 | .00234 | -.00783 |

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILLON = .000 BDFLAP = -7.170

RNWL = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA

SREF = 2698.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

| MACH | ALPHA | BETA | PT | P | OCOMP | 0754OC | 0667OC | DPT075 | DPT066 | DP075 | DP066 |
|----------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .300 | .000 | 5.00000 | 4111.07709 | 3863.25070 | 247.82682 | .95645 | .98838 | -.00368 | .00388 | .04185 | .00550 |
| 2.000 | .000 | 5.00000 | 4111.63350 | 3863.72061 | 247.91272 | .94709 | 1.00002 | -.00908 | .00022 | .05595 | .00421 |
| 4.000 | .000 | 5.00000 | 4113.41224 | 3865.42447 | 248.18781 | .94331 | 1.00273 | .00171 | -.00149 | .06181 | -.00427 |
| 6.000 | .000 | 5.00000 | 4113.71021 | 3865.51031 | 248.19589 | .94642 | .97798 | -.00009 | .00145 | .05652 | .03398 |
| 8.000 | .000 | 5.00000 | 4108.65509 | 3650.95779 | 247.69733 | .95708 | .98036 | -.00157 | .00187 | .04660 | .02191 |
| 10.000 | .000 | 5.00000 | 4111.06720 | 3863.19644 | 247.87079 | .95806 | .96185 | -.00156 | .00122 | .04222 | .03845 |
| 12.000 | .000 | 5.00000 | 4109.18353 | 3861.44827 | 247.73529 | .96906 | .97074 | .00079 | -.00736 | .06272 | .02289 |
| 14.000 | .000 | 5.00000 | 4111.46014 | 3853.48688 | 247.97327 | .96322 | .97214 | .00402 | -.01056 | .04210 | .01810 |
| 16.000 | .000 | 5.00000 | 4118.21577 | 3870.12688 | 248.78912 | .96222 | .98870 | -.00003 | -.02288 | .03223 | -.00641 |
| 18.000 | .000 | 5.00000 | 4119.71191 | 3870.79443 | 248.91748 | .94196 | 1.02929 | -.00817 | -.03825 | .05343 | -.06292 |
| 20.000 | .000 | 5.00000 | 4124.50134 | 3875.14908 | 249.35229 | .92387 | .04693 | -.01527 | -.07166 | .06713 | -.11648 |
| 22.000 | .000 | 5.00000 | 4123.99310 | 3874.71460 | 249.27850 | .90882 | .05321 | -.02232 | -.11527 | .07801 | -.16579 |
| 24.000 | .000 | 5.00000 | 4116.33838 | 3867.86544 | 248.48297 | .89457 | .02873 | -.03487 | -.18290 | .08598 | -.21083 |
| GRADIENT | | .00000 | .63383 | .54342 | .09035 | -.00329 | .00105 | .00135 | -.00134 | .00493 | -.00243 |

RNWL = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 0754OC | 0667OC | DPT075 | DPT066 | DP075 | DP066 |
|----------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .500 | .000 | 5.00000 | 2539.89575 | 1988.74246 | 551.15329 | .95345 | 1.00007 | -.00585 | .00124 | .04298 | -.00191 |
| 2.000 | .000 | 5.00000 | 2543.77475 | 1992.01917 | 551.75238 | .94566 | 1.00166 | -.00388 | -.00410 | .05358 | -.00576 |
| 4.000 | .000 | 5.00000 | 2547.62610 | 1995.52219 | 552.10391 | .94451 | 1.00954 | -.00377 | -.00243 | .05498 | -.01183 |
| 6.000 | .000 | 5.00000 | 2543.32291 | 1991.71695 | 551.60599 | .94848 | .98581 | -.00277 | -.00387 | .05154 | .01083 |
| 8.000 | .000 | 5.00000 | 2542.63698 | 1990.55530 | 552.08666 | .95442 | .97599 | -.00373 | -.00354 | .04395 | .02106 |
| 10.000 | .000 | 5.00000 | 2545.97491 | 1993.46725 | 552.50766 | .95702 | .96373 | -.00432 | -.00402 | .02972 | .03354 |
| 12.000 | .000 | 5.00000 | 2543.11087 | 1990.86940 | 552.24149 | .97176 | .98758 | -.00317 | -.00484 | .02599 | .00773 |
| 14.000 | .000 | 5.00000 | 2547.63428 | 1994.94937 | 552.68494 | .95993 | .97020 | -.00397 | -.01448 | .03776 | .01623 |
| 16.000 | .000 | 5.00000 | 2552.74863 | 1999.50385 | 553.24478 | .95498 | .95202 | -.00479 | -.02834 | .04235 | .02208 |
| 18.000 | .000 | 5.00000 | 2540.56671 | 1988.56577 | 552.00096 | .95106 | .96647 | -.00801 | -.04951 | .04345 | -.01481 |
| 20.000 | .000 | 5.00000 | 2537.67148 | 1986.08488 | 551.58664 | .93553 | .97073 | -.01119 | -.07825 | .05772 | -.04810 |
| 22.000 | .000 | 5.00000 | 2543.69781 | 1991.43520 | 552.26263 | .91721 | .97564 | -.01896 | -.13187 | .07130 | -.10690 |
| 24.000 | .000 | 5.00000 | 2543.88870 | 1991.44173 | 552.44689 | .89728 | .97496 | -.02778 | -.22968 | .08670 | -.20593 |
| GRADIENT | | .00000 | 1.93258 | 1.69493 | .23766 | -.00223 | .00236 | .00852 | -.00015 | .00300 | -.00243 |

TABULATED DATA - OALIS1 (ARC 11-97-87-89*)

(GE7B44) (02 AUG 76)
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ARC 11-97-87-89* OALIS1 ORBITER + PROBES.

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6880 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = 8.000
A1LRON = .080
ELEVON = .000
BOFLAP = -7.170

PARAMETRIC DATA

MACH = .300
ALPHA
RN/L = 3.98 GRADIENT INTERVAL = -5.06/ 5.00

| BETA | PT | P | OCOMP | 075/OC | 066/OC | DP1075 | DP1066 | DP075 | DP066 |
|---------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| 8.00000 | 4104.20569 | 3856.64301 | 247.56268 | .95219 | 1.06290 | -.00284 | .00175 | .04 | -.00866 |
| 8.00000 | 4098.86353 | 3852.26983 | 246.99363 | .95306 | 1.00403 | -.00094 | -.00145 | .05 | -.00114 |
| 8.00000 | 4100.82227 | 3854.04211 | 246.78015 | .94839 | .93240 | -.00097 | -.00053 | .05 | -.00546 |
| 8.00000 | 4104.97506 | 3857.68516 | 247.28294 | .94318 | .97041 | -.00166 | -.00257 | .05 | -.00713 |
| 8.00000 | 4106.86311 | 3859.44958 | 247.42456 | .95574 | .96577 | -.00108 | -.00107 | .06766 | -.02793 |
| 8.00000 | 4103.75933 | 3856.68021 | 247.07888 | .96602 | .95407 | -.00302 | -.00107 | .05888 | -.03538 |
| 8.00000 | 4103.28404 | 3856.21628 | 247.04779 | .97031 | .96860 | -.00274 | -.00184 | .03216 | -.03619 |
| 8.00000 | 4107.78965 | 3860.25348 | 247.53607 | .96405 | .97948 | -.00370 | -.00642 | .02786 | -.02600 |
| 8.00000 | 4109.02155 | 3851.36682 | 247.65472 | .95975 | .99740 | -.00520 | -.01392 | .03359 | -.00783 |
| 8.00000 | 4107.89282 | 3850.31406 | 247.57880 | .94596 | 1.02077 | -.01108 | -.02883 | .03674 | -.02822 |
| 8.00000 | 4104.02478 | 3856.83127 | 247.19354 | .94012 | 1.03848 | -.01412 | -.04480 | .04957 | -.06515 |
| 8.00000 | 4100.98989 | 3854.10867 | 246.88135 | .92804 | 1.05012 | -.02800 | -.07409 | .05474 | -.11114 |
| .00000 | -.84587 | -.65023 | -.19563 | .90885 | 1.02559 | -.03266 | -.20051 | .06763 | -.16885 |
| | | | | -.00095 | -.00263 | .00032 | -.00057 | .00157 | -.02956 |
| | | | | | | | | | .00297 |

MACH = .600
ALPHA
RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| BETA | PT | P | OCOMP | 075/OC | 066/OC | DP1075 | DP1066 | DP075 | DP066 |
|---------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| 8.00000 | 2540.42752 | 1989.64767 | 551.77985 | .96149 | 1.02317 | -.00610 | .00874 | .03395 | -.02190 |
| 8.00000 | 2541.56726 | 1989.64686 | 561.92032 | .96176 | 1.01201 | -.00424 | -.00428 | .03552 | -.01615 |
| 8.00000 | 2543.31274 | 1991.17441 | 552.13839 | .95502 | 1.00957 | -.00329 | -.00266 | .04380 | -.01214 |
| 8.00000 | 2543.26749 | 1991.04210 | 552.22540 | .94648 | .98760 | -.00355 | -.00298 | .05299 | -.01019 |
| 8.00000 | 2539.14548 | 1987.62428 | 551.52222 | .94605 | .98563 | -.00287 | -.00192 | .04310 | -.01267 |
| 8.00000 | 2540.46750 | 1988.83691 | 551.64600 | .95942 | .97379 | -.00266 | -.00355 | .02886 | -.02536 |
| 8.00000 | 2542.93640 | 1989.11717 | 551.81924 | .97687 | .98592 | -.00394 | -.00355 | .01973 | -.00743 |
| 8.00000 | 2542.98930 | 1991.01173 | 551.97818 | .97001 | .98853 | -.00500 | -.00685 | .01973 | -.00743 |
| 8.00000 | 2546.39489 | 1994.08272 | 552.30219 | .96557 | .98853 | -.00573 | -.03002 | .02592 | -.00248 |
| 8.00000 | 2552.10058 | 1999.15569 | 552.94501 | .96158 | .98097 | -.00573 | -.03002 | .02992 | -.01221 |
| 8.00000 | 2542.79172 | 1990.81525 | 551.97647 | .94161 | .98097 | -.01173 | -.05348 | .02992 | -.03408 |
| 8.00000 | 2537.01930 | 1985.60674 | 551.41318 | .93252 | .98756 | -.02834 | -.08813 | .04768 | -.07682 |
| 8.00000 | 2540.41748 | 1988.55078 | 551.86570 | .96836 | .96836 | -.02834 | -.15370 | .06226 | -.14110 |
| .00000 | .72131 | .63167 | .08962 | .91169 | -.00162 | -.03225 | -.25343 | .06462 | -.22183 |
| | | | | -.00162 | -.00340 | .00070 | -.00085 | .00248 | -.08244 |

ORIGINAL PAGE IS
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REFERENCE DATA

SREF = 2500.0000 50.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00-

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/OC | 065/OC | DP1075 | DP1066 | DP075 | DP066 |
|----------|--------|----------|------------|------------|-----------|---------|---------|---------|---------|---------|---------|
| .300 | .000 | -5.00000 | 4083.68168 | 3857.51010 | 246.18158 | .93721 | .97577 | -.00096 | -.00191 | -.06504 | -.02292 |
| 2.000 | .000 | -5.00000 | 4080.42380 | 3834.50214 | 245.92166 | .93980 | .99286 | -.00184 | -.00184 | -.06590 | -.01561 |
| 4.000 | .000 | -5.00000 | 4082.97000 | 3836.85544 | 246.11456 | .93626 | .93177 | -.00030 | -.00186 | -.06779 | -.01571 |
| 6.000 | .000 | -5.00000 | 4080.83282 | 3834.86475 | 245.96808 | .94053 | .98401 | -.00488 | -.00593 | -.06092 | -.01123 |
| 8.000 | .000 | -5.00000 | 4080.96622 | 3835.00128 | 245.90494 | .95385 | .97846 | -.00212 | -.00858 | -.06050 | -.01342 |
| 10.000 | .000 | -5.00000 | 4083.33157 | 3837.10403 | 246.22754 | .97453 | .97453 | -.00173 | -.01021 | -.04962 | -.01592 |
| 12.000 | .000 | -5.00000 | 4083.19510 | 3836.95032 | 246.24478 | .92980 | .97453 | -.00420 | -.01627 | -.07130 | -.00008 |
| 14.000 | .000 | -5.00000 | 4085.79639 | 3839.35828 | 246.43811 | .90514 | .90514 | -.00408 | -.02568 | -.10673 | -.00582 |
| 16.000 | .000 | -5.00000 | 4083.73492 | 3837.47116 | 246.26376 | .88434 | .88434 | -.00827 | -.04551 | -.12851 | -.07533 |
| 18.000 | .000 | -5.00000 | 4082.53638 | 3836.36569 | 246.17068 | .85174 | .85174 | -.01543 | -.04551 | -.11937 | -.07533 |
| 20.000 | .000 | -5.00000 | 4086.27255 | 3839.77493 | 246.49762 | .80923 | .80923 | -.02119 | -.09780 | -.21495 | -.16040 |
| 22.000 | .000 | -5.00000 | 4082.56488 | 3836.49771 | 246.06711 | .77915 | .77915 | -.03052 | -.14829 | -.26293 | -.20554 |
| 24.000 | .000 | -5.00000 | 4082.27554 | 3836.16763 | 246.10791 | .73432 | .73432 | -.05185 | -.21000 | -.30697 | -.26317 |
| GRADIENT | .00000 | .00000 | -.18042 | -.16366 | -.01675 | -.00024 | -.00150 | .00017 | .00001 | .08044 | -.00155 |

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/OC | 065/OC | DP1675 | DP1066 | DP075 | DP066 |
|----------|--------|----------|------------|------------|-----------|--------|--------|---------|---------|--------|---------|
| .600 | .000 | -5.00000 | 2503.66928 | 1961.08160 | 542.58768 | .93847 | .97594 | -.01230 | -.00859 | .05327 | -.01700 |
| 2.000 | .000 | -5.00000 | 2508.03470 | 1964.87794 | 543.15677 | .93686 | .97923 | -.00747 | -.00608 | .05993 | -.01521 |
| 4.000 | .000 | -5.00000 | 2584.84750 | 1961.84412 | 543.00338 | .94117 | .98358 | -.00552 | -.06514 | .05699 | -.01156 |
| 6.000 | .000 | -5.00000 | 2587.57928 | 1964.30646 | 543.27283 | .94410 | .97607 | -.00691 | -.00664 | .05328 | -.01578 |
| 8.000 | .000 | -5.00000 | 2507.23706 | 1964.02145 | 543.21561 | .95090 | .95463 | -.00581 | -.00678 | .04583 | -.04075 |
| 10.000 | .000 | -5.00000 | 2515.97717 | 1971.73871 | 544.23846 | .95140 | .95788 | -.00513 | -.01279 | .04595 | -.03118 |
| 12.000 | .000 | -5.00000 | 2513.42737 | 1969.43301 | 543.98435 | .93694 | .96693 | -.00811 | -.02023 | .05219 | -.01078 |
| 14.000 | .000 | -5.00000 | 2505.08347 | 1962.94601 | 543.13745 | .92059 | .96425 | -.00706 | -.02528 | .07219 | -.01160 |
| 16.000 | .000 | -5.00000 | 2503.21774 | 1960.48389 | 542.73386 | .89837 | .95633 | -.00960 | -.03278 | .10353 | -.01727 |
| 18.000 | .000 | -5.00000 | 2503.51517 | 1960.81487 | 542.70032 | .86848 | .94492 | -.01429 | -.05334 | .13715 | -.04495 |
| 20.000 | .000 | -5.00000 | 2501.39257 | 1958.86124 | 542.52133 | .83161 | .94391 | -.01923 | -.07982 | .18325 | -.01960 |
| 22.000 | .000 | -5.00000 | 2502.79318 | 1960.06981 | 542.72339 | .78817 | .94209 | -.03179 | -.11426 | .23686 | -.05279 |
| 24.000 | .000 | -5.00000 | 2510.39862 | 1966.80496 | 543.59366 | .74665 | .92277 | -.04632 | -.17214 | .29698 | -.08845 |
| GRADIENT | .00000 | .00000 | .29455 | .19063 | .10393 | .00057 | .00213 | .00169 | .00086 | .00093 | -.00136 |

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0500

PARAMETRIC DATA

BETA = -2.000 ELEVON = 15.000
AILRON = .000 BOFLAP = -7.170

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DPT075 | DPT066 | DPO75 | DPO66 |
|----------|--------|----------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .300 | .000 | -2.00000 | 4083.06894 | 3842.48010 | 246.58884 | 94277 | 99304 | .00425 | -.00114 | .06495 | .00667 |
| 2.000 | 2.000 | -2.00000 | 4091.17761 | 3844.27921 | 246.89841 | 93423 | 1.00075 | -.00191 | -.00060 | .06049 | -.00135 |
| 4.000 | 4.000 | -2.00000 | 4091.68335 | 3844.71561 | 246.96774 | 93420 | 99999 | .00114 | .00290 | .07158 | -.00290 |
| 6.000 | 6.000 | -2.00000 | 4089.27725 | 3842.65396 | 246.62329 | 93359 | 96370 | .00185 | .08027 | .07299 | .01684 |
| 8.000 | 8.000 | -2.00000 | 4089.24741 | 3842.63040 | 246.61700 | 94281 | 96321 | .00187 | -.00343 | .06253 | .03476 |
| 10.000 | 10.000 | -2.00000 | 4089.48151 | 3842.83499 | 246.64651 | 94679 | 97914 | .00317 | -.00528 | .05937 | .01602 |
| 12.000 | 12.000 | -2.00000 | 4089.44775 | 3842.80380 | 246.64395 | 93651 | 1.00566 | .00339 | -.00731 | .07119 | -.01313 |
| 14.000 | 14.000 | -2.00000 | 4089.15720 | 3842.55436 | 246.60287 | 90959 | 1.03362 | .00275 | -.01809 | .10214 | -.05062 |
| 16.000 | 16.000 | -2.00000 | 4091.20270 | 3844.30038 | 246.90231 | 86699 | 1.04878 | -.00527 | -.03566 | .14814 | -.08208 |
| 18.000 | 18.000 | -2.00000 | 4091.50607 | 3843.72888 | 246.77719 | 84282 | 1.07093 | -.03348 | -.05766 | .18301 | -.12388 |
| 20.000 | 20.000 | -2.00000 | 4085.35025 | 3839.14899 | 246.20126 | 80857 | 1.09671 | .01632 | -.09251 | .20235 | -.18049 |
| 22.000 | 22.000 | -2.00000 | 4087.08173 | 3840.70343 | 246.37830 | 80917 | 1.05407 | -.02471 | -.13800 | .21113 | -.18930 |
| 24.000 | 24.000 | -2.00000 | 4092.22760 | 3845.23996 | 246.98784 | .77658 | 1.02574 | -.04195 | -.20473 | .24575 | -.22984 |
| GRADIENT | | .00000 | .65365 | .55888 | .09473 | -.00214 | .00174 | -.00076 | .00076 | .00166 | -.00099 |

| MACH = | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DPT075 | DPT066 | DPO75 | DPO66 |
|----------|--------|----------|------------|------------|-----------|--------|--------|---------|---------|---------|---------|
| .600 | .000 | -2.00000 | 2497.21130 | 1955.14626 | 542.08506 | 94255 | 98863 | -.00413 | -.00407 | .05682 | .00723 |
| 2.000 | 2.000 | -2.00000 | 2497.06388 | 1955.15842 | 541.90466 | 94398 | 99925 | -.00388 | -.00273 | .05947 | -.00197 |
| 4.000 | 4.000 | -2.00000 | 2504.31854 | 1961.54137 | 542.77719 | 94334 | 99349 | -.00462 | -.00339 | .05634 | -.00316 |
| 6.000 | 6.000 | -2.00000 | 2502.25977 | 1959.92384 | 542.33584 | 94644 | 97991 | -.00327 | -.00329 | .05332 | .01662 |
| 8.000 | 8.000 | -2.00000 | 2498.75104 | 1957.72684 | 542.02420 | 95222 | 96618 | -.00253 | -.00529 | .04784 | .02972 |
| 10.000 | 10.000 | -2.00000 | 2510.79306 | 1967.57306 | 543.28700 | 94336 | 96892 | -.00216 | -.00840 | .05787 | .02358 |
| 12.000 | 12.000 | -2.00000 | 2510.94430 | 1967.58032 | 543.36388 | 93865 | 98065 | -.00431 | -.01096 | .06105 | .00878 |
| 14.000 | 14.000 | -2.00000 | 2503.96127 | 1961.27100 | 542.67029 | 92276 | 97799 | -.00599 | -.01860 | .07772 | .00590 |
| 16.000 | 16.000 | -2.00000 | 2506.06129 | 1963.25845 | 542.80283 | 88975 | 95595 | -.00742 | -.03050 | .11649 | .01599 |
| 18.000 | 18.000 | -2.00000 | 2500.93432 | 1958.61502 | 542.31900 | 85998 | 95284 | -.01266 | -.05097 | .15015 | -.00147 |
| 20.000 | 20.000 | -2.00000 | 2494.98862 | 1953.29674 | 541.69189 | 84241 | 96739 | -.01782 | -.07814 | .18926 | -.04443 |
| 22.000 | 22.000 | -2.00000 | 2503.14465 | 1960.56935 | 542.57532 | 82387 | 96072 | -.02507 | -.12460 | .18872 | -.08372 |
| 24.000 | 24.000 | -2.00000 | 2509.37143 | 1966.01462 | 543.35581 | 79391 | 92877 | -.03776 | -.19302 | .24183 | -.11633 |
| GRADIENT | | .00000 | 1.77681 | 1.59889 | .17803 | .00020 | .00117 | -.00012 | .00017 | -.00034 | -.00102 |

ARC 11-97-87-094 OA161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XQ
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DPT075 | DPT066 | DP075 | DP066 |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .300 | .000 | .00000 | 4094.11484 | 3846.90866 | 247.20618 | .93741 | .98050 | -.00004 | -.00299 | .06674 | .02268 |
| 2.000 | .000 | .00000 | 4094.96465 | 3847.60187 | 247.32278 | .93284 | 1.00229 | .00140 | -.00475 | .07340 | -.00247 |
| 4.000 | .000 | .00000 | 4092.43301 | 3845.44928 | 246.98380 | .93089 | 1.00755 | .00500 | .00515 | .07924 | -.00234 |
| 6.000 | .000 | .00000 | 4094.44247 | 3847.17023 | 247.27225 | .93533 | 1.00227 | .00217 | .00032 | .07131 | -.00195 |
| 8.000 | .000 | .00000 | 4092.62842 | 3845.61499 | 247.01343 | .93649 | .98418 | -.00200 | -.00188 | .06881 | .01419 |
| 10.000 | .000 | .00000 | 4092.36960 | 3845.39587 | 246.87372 | .94681 | .96309 | .00299 | .00324 | .05916 | .03508 |
| 12.000 | .000 | .00000 | 4092.73123 | 3845.70773 | 247.02350 | .94546 | .96735 | .00231 | -.00889 | .05999 | .01392 |
| 14.000 | .000 | .00000 | 4092.56197 | 3845.38095 | 246.98102 | .93063 | 1.01346 | -.00081 | -.01916 | .07373 | -.03244 |
| 16.000 | .000 | .00000 | 4092.49921 | 3845.49753 | 247.00168 | .91505 | 1.03995 | .00311 | -.03277 | .08973 | -.07118 |
| 18.000 | .000 | .00000 | 4092.95081 | 3845.89420 | 247.05661 | .87508 | 1.09859 | -.00881 | -.05486 | .13595 | -.12735 |
| 20.000 | .000 | .00000 | 4090.17502 | 3843.49951 | 246.67551 | .84937 | 1.09859 | -.01048 | -.08572 | .16666 | -.17646 |
| 22.000 | .000 | .00000 | 4093.10327 | 3846.01486 | 246.68841 | .82605 | 1.06354 | -.02207 | -.13385 | .18851 | -.19368 |
| 24.000 | .000 | .00000 | 4095.18353 | 3847.81122 | 247.37231 | .79262 | 1.00936 | -.03681 | -.20641 | .22547 | -.21568 |
| GRADIENT | | .00000 | -.42045 | -.36487 | -.09560 | -.00163 | .00676 | .00126 | -.00054 | .00313 | -.00631 |

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DPT075 | DPT066 | DP075 | DP066 |
|----------|-------|--------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .600 | .000 | .00000 | 2492.27872 | 1951.26523 | 541.01349 | .94354 | .98078 | -.08602 | -.00450 | .05382 | .02056 |
| 2.000 | .000 | .00000 | 2536.13879 | 1987.62505 | 547.54376 | .94748 | .99838 | .00229 | .00167 | .06899 | -.00329 |
| 4.000 | .000 | .00000 | 2506.12231 | 1960.55629 | 545.56604 | .93524 | 1.00606 | -.00249 | -.00061 | .06676 | -.00663 |
| 6.000 | .000 | .00000 | 2520.06754 | 1972.25833 | 547.80920 | .93452 | .93546 | .00377 | -.00261 | .06630 | -.00195 |
| 8.000 | .000 | .00000 | 2525.38132 | 1977.81729 | 548.56903 | .94225 | .93471 | -.00403 | -.00450 | .05726 | .01102 |
| 10.000 | .000 | .00000 | 2534.98524 | 1985.46754 | 549.54871 | .94551 | .94461 | .00447 | -.00857 | .06316 | .02891 |
| 12.000 | .000 | .00000 | 2533.69134 | 1995.32968 | 549.35165 | .94695 | .97109 | -.00374 | -.01110 | .09228 | .01667 |
| 14.000 | .000 | .00000 | 2522.58533 | 1974.37488 | 548.21045 | .92959 | .97002 | -.00396 | -.01767 | .06933 | .01323 |
| 16.000 | .000 | .00000 | 2525.19815 | 1976.72752 | 548.47064 | .92546 | .96635 | -.00681 | -.03288 | .07363 | -.01333 |
| 18.000 | .000 | .00000 | 2529.38464 | 1970.50684 | 548.87781 | .89915 | .95764 | -.00916 | -.05228 | .10308 | -.04415 |
| 20.000 | .000 | .00000 | 2526.75348 | 1978.15669 | 548.59781 | .86110 | .96239 | -.01521 | -.09323 | .14609 | -.04415 |
| 22.000 | .000 | .00000 | 2527.80078 | 1978.98515 | 548.81564 | .83489 | .96675 | -.02485 | -.13765 | .17291 | -.10560 |
| 24.000 | .000 | .00000 | 2531.23740 | 1942.01257 | 549.22482 | .81002 | .93765 | -.03505 | -.20975 | .19949 | -.14325 |
| GRADIENT | | .00000 | 3.46090 | 2.32275 | 1.13814 | -.00208 | .00632 | .00088 | -.00097 | .00323 | -.00543 |

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 AIRLON = .000 EBFAP = -7.170

(GET848) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)

ARC 11-97-87-094 0A161 ORBITER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 938.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | OCOMP | 075/0C | 066/0C | DP075 | DP066 |
|----------|---------|------------|------------|------------|---------|---------|---------|---------|
| .300 | 2.00000 | 4093.12866 | 3847.76144 | 247.36728 | .94621 | .97818 | .06010 | .02589 |
| ALPHA | .000 | 2.00000 | 4092.81378 | 3845.77237 | .93362 | 1.00427 | .07117 | -.00358 |
| 2.000 | 2.00000 | 4094.28610 | 3847.03000 | 247.25610 | .93187 | 1.01296 | .07691 | -.01065 |
| 4.000 | 2.00000 | 4093.03870 | 3845.96548 | 247.07321 | .93210 | 1.00850 | .07488 | -.00573 |
| 6.000 | 2.00000 | 4094.39767 | 3847.13489 | 247.26279 | .93801 | 1.00662 | .06878 | -.00646 |
| 8.000 | 2.00000 | 4094.94346 | 3847.59677 | 247.34368 | .94989 | .96525 | .05312 | .03788 |
| 10.000 | 2.00000 | 4090.81253 | 3844.04269 | 246.76984 | .95421 | .98562 | -.00596 | .00883 |
| 12.000 | 2.00000 | 4094.13782 | 3846.97061 | 247.16721 | .94278 | 1.00563 | .05177 | -.02398 |
| 14.000 | 2.00000 | 4094.01318 | 3846.90274 | 247.11044 | .94096 | 1.03250 | -.01848 | -.06923 |
| 16.000 | 2.00000 | 4092.61813 | 3845.62732 | 246.99381 | .93445 | 1.07470 | -.03744 | -.12575 |
| 18.000 | 2.00000 | 4092.53760 | 3845.53943 | 247.00217 | .91855 | 1.10556 | -.05624 | -.18673 |
| 20.000 | 2.00000 | 4093.15781 | 3846.07544 | 247.08237 | .87487 | 1.07216 | -.09430 | -.20682 |
| 22.000 | 2.00000 | 4091.65585 | 3844.77710 | 246.87875 | .83591 | 1.01938 | -.13961 | -.25297 |
| 24.000 | 2.00000 | 4091.21065 | 3844.18286 | 246.82778 | .83591 | 1.01938 | -.21396 | -.25297 |
| GRADIENT | .00000 | -.21065 | -.18286 | -.02778 | -.00358 | .00869 | -.00420 | -.00913 |

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | BETA | PT | P | OCOMP | 075/0C | 066/0C | DP075 | DP066 |
|----------|---------|------------|------------|-----------|---------|---------|---------|---------|
| .600 | 2.00000 | 2523.43891 | 1975.42574 | 548.01419 | .94788 | .97540 | .05228 | .02026 |
| ALPHA | .000 | 2.00000 | 2522.93480 | 548.27618 | .93534 | 1.00181 | .06277 | -.00458 |
| 2.000 | 2.00000 | 2522.34305 | 1973.95619 | 548.36697 | .93483 | 1.01243 | .06155 | -.01383 |
| 4.000 | 2.00000 | 2522.34369 | 1973.80801 | 548.53568 | .93844 | .99584 | -.00407 | -.00389 |
| 6.000 | 2.00000 | 2534.44489 | 1984.61679 | 548.82808 | .93730 | .99097 | .00498 | .04115 |
| 8.000 | 2.00000 | 2530.58975 | 1981.16174 | 549.43781 | .94929 | .97388 | -.00456 | .01955 |
| 10.000 | 2.00000 | 2528.78778 | 1979.57022 | 549.21756 | .94916 | .98653 | -.01178 | .03188 |
| 12.000 | 2.00000 | 2529.03558 | 1979.72385 | 549.31174 | .95388 | .97298 | -.01921 | .02828 |
| 14.000 | 2.00000 | 2538.91565 | 1988.57759 | 550.33807 | .94609 | .95417 | -.00617 | .04658 |
| 16.000 | 2.00000 | 2537.34454 | 1987.18785 | 550.15671 | .92973 | .95195 | -.05525 | -.00822 |
| 18.000 | 2.00000 | 2535.37787 | 1985.38430 | 549.99298 | .91102 | .97289 | -.09344 | -.06257 |
| 20.000 | 2.00000 | 2531.03384 | 1981.45333 | 549.56982 | .89118 | .98660 | -.01794 | -.08489 |
| 22.000 | 2.00000 | 2525.60913 | 1975.53356 | 549.07547 | .85290 | .94431 | -.02843 | -.17052 |
| 24.000 | 2.00000 | 2524.19 | 1975.53356 | 549.07547 | .85290 | .94431 | -.22849 | -.17052 |
| GRADIENT | .00000 | -.27419 | -.35739 | -.09317 | -.00327 | .00926 | -.00002 | -.00652 |

ORIGINAL PAGE IS OF POOR QUALITY

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

MACH = .300
 RN/L = 3.91
 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DP1075 | DP1066 | DP075 | DP066 |
|----------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .000 | .000 | 5.00000 | 4091.96802 | 3845.09164 | 246.81638 | .95879 | 1.00188 | .00521 | .00643 | .04819 | .00460 |
| 2.000 | .000 | 5.00000 | 4097.52972 | 3850.06409 | 247.46684 | .94970 | 1.01481 | .00301 | .00223 | .05697 | .01436 |
| 4.000 | .000 | 5.00000 | 4098.69287 | 3851.08252 | 247.61035 | .94478 | .99941 | -.00078 | -.00991 | .05766 | .00522 |
| 6.000 | .000 | 5.00000 | 4093.69952 | 3846.57336 | 247.12618 | .94715 | .99087 | -.00301 | -.00123 | .05279 | .01045 |
| 8.000 | .000 | 5.00000 | 4091.92636 | 3845.02399 | 246.90237 | .95506 | .98169 | .00071 | -.00216 | .04777 | .01649 |
| 10.000 | .000 | 5.00000 | 4095.28748 | 3848.03641 | 247.25107 | .96191 | .97039 | -.00240 | -.00336 | .03719 | .02715 |
| 12.000 | .000 | 5.00000 | 4098.66168 | 3851.08652 | 247.57520 | .96837 | .98454 | -.00126 | -.00846 | .04216 | .00724 |
| 14.000 | .000 | 5.00000 | 4100.06610 | 3852.32293 | 247.73621 | .95760 | .99723 | -.00195 | -.02239 | .04233 | .01951 |
| 16.000 | .000 | 5.00000 | 4100.09658 | 3852.37668 | 247.72033 | .94968 | 1.03113 | -.00981 | -.06098 | .04718 | .05717 |
| 18.000 | .000 | 5.00000 | 4098.44458 | 3850.82678 | 247.61780 | .93542 | 1.07073 | -.00981 | -.06098 | .05922 | .12613 |
| 20.000 | .000 | 5.00000 | 4094.74744 | 3847.55252 | 247.19492 | .92762 | 1.09776 | -.01354 | -.09025 | .06449 | .17931 |
| 22.000 | .000 | 5.00000 | 4091.30930 | 3844.44815 | 246.86115 | .91147 | 1.07321 | -.01647 | -.14304 | .08066 | .21125 |
| 24.000 | .000 | 5.00000 | 4091.71375 | 3844.85493 | 246.84882 | .88432 | 1.02286 | -.02703 | -.23462 | .10378 | .25698 |
| GRADIENT | | .00000 | 1.69521 | 1.49772 | .19849 | -.00350 | -.00062 | -.00150 | -.00307 | .00237 | -.00246 |

MACH = .600
 RN/L = 4.21
 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | 075/OC | 066/OC | DP1075 | DP1066 | DP075 | DP066 |
|----------|-------|---------|------------|------------|-----------|---------|---------|---------|---------|--------|---------|
| .000 | .000 | 5.00000 | 2535.04523 | 1985.09232 | 549.95291 | .95297 | .99457 | -.00515 | -.00624 | .04420 | .00262 |
| 2.000 | .000 | 5.00000 | 2530.24927 | 1980.90170 | 549.34756 | .94653 | 1.01070 | -.00567 | -.00474 | .05082 | .01532 |
| 4.000 | .000 | 5.00000 | 2525.68387 | 1976.83443 | 548.84346 | .94981 | 1.00985 | -.00226 | -.00231 | .05093 | .01207 |
| 6.000 | .000 | 5.00000 | 2521.55911 | 1973.12846 | 548.43086 | .95198 | .97980 | -.00418 | -.00505 | .04628 | .01566 |
| 8.000 | .000 | 5.00000 | 2535.72415 | 1985.92627 | 549.79788 | .95218 | .96840 | -.00922 | -.00496 | .04500 | .02856 |
| 10.000 | .000 | 5.00000 | 2533.28085 | 1983.71909 | 549.56177 | .96770 | .97734 | -.00492 | -.00555 | .02840 | .01754 |
| 12.000 | .000 | 5.00000 | 2535.35216 | 1985.55157 | 549.80759 | .96188 | .98825 | -.00743 | -.01281 | .03220 | .00092 |
| 14.000 | .000 | 5.00000 | 2530.73212 | 1981.33900 | 549.39413 | .96339 | .97917 | -.00823 | -.02286 | .02977 | .00159 |
| 16.000 | .000 | 5.00000 | 2530.50117 | 1981.23556 | 549.30650 | .96151 | .96293 | -.00808 | -.03747 | .03194 | .00103 |
| 18.000 | .000 | 5.00000 | 2538.39977 | 1988.30652 | 550.08325 | .93580 | .96948 | -.01057 | -.06133 | .05803 | .01909 |
| 20.000 | .000 | 5.00000 | 2537.74243 | 1987.64873 | 550.09372 | .92431 | .97392 | -.01463 | -.10435 | .06725 | .07757 |
| 22.000 | .000 | 5.00000 | 2535.20123 | 1985.41608 | 549.78516 | .91773 | .98639 | -.02030 | -.18092 | .08934 | .16703 |
| 24.000 | .000 | 5.00000 | 2534.79544 | 1984.94473 | 549.85071 | .88993 | .92786 | -.03015 | -.26702 | .09353 | .18926 |
| GRADIENT | | .00000 | -2.34033 | -2.06445 | -.27586 | -.00079 | .00382 | .00072 | .00073 | .00160 | -.00507 |

PARAMETRIC DATA

BETA = 5.000
 ELEVON = 15.000
 AIRLON = .000
 EDFLAP = -7.170

(067X384 (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

PARAMETRIC DATA

BETA = -8.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | OCCMP | M75 | M66 | PS/PT7 | PS/PT6 |
|----------|--------|----------|------------|------------|-----------|--------|--------|--------|--------|
| .360 | .000 | -8.00000 | 4129.09033 | 3879.05209 | 250.03827 | .28569 | .29022 | .94490 | .94321 |
| 2.000 | .000 | -8.00000 | 4124.91620 | 3875.47940 | 249.43683 | .28729 | .29277 | .94431 | .94224 |
| 4.000 | .000 | -8.00000 | 4124.69104 | 3875.28643 | 249.40161 | .28557 | .29096 | .94456 | .94293 |
| 6.000 | .000 | -8.00000 | 4124.73520 | 3875.32263 | 249.41327 | .28786 | .29396 | .94409 | .94292 |
| 8.000 | .000 | -8.00000 | 4124.93933 | 3875.51498 | 249.42444 | .28923 | .29098 | .94358 | .94276 |
| 10.000 | .000 | -8.00000 | 4122.15399 | 3872.94339 | 249.21063 | .28944 | .29142 | .94350 | .94240 |
| 12.000 | .000 | -8.00000 | 4124.91528 | 3875.48770 | 249.42761 | .28999 | .29237 | .94359 | .94076 |
| 14.000 | .000 | -8.00000 | 4122.52295 | 3873.27820 | 249.24475 | .28379 | .29665 | .94561 | .93957 |
| 16.000 | .000 | -8.00000 | 4124.583.3 | 3875.18427 | 249.39886 | .27790 | .29974 | .94777 | .93955 |
| 18.000 | .000 | -8.00000 | 4124.34033 | 3873.15861 | 249.23114 | .27423 | .29979 | .94909 | .93972 |
| 20.000 | .000 | -8.00000 | 4124.34033 | 3874.96457 | 249.37579 | .26887 | .30194 | .95100 | .93838 |
| 22.000 | .000 | -8.00000 | 4122.51056 | 3973.27280 | 249.23779 | .26301 | .30219 | .95591 | .93852 |
| 24.000 | .000 | -8.00000 | 4123.82751 | 3874.48828 | 249.33923 | .25461 | .30219 | .95591 | .93852 |
| GRADIENT | .00000 | -1.09981 | | | | .00022 | .00019 | .00008 | .00007 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | OCCMP | M75 | M66 | PS/PT7 | PS/PT6 |
|----------|--------|----------|------------|------------|-----------|--------|--------|--------|--------|
| .600 | .000 | -8.00000 | 2529.47873 | 1982.61595 | 546.86279 | .57834 | .57897 | .80204 | .79583 |
| 2.000 | .000 | -8.00000 | 2511.08112 | 1966.36711 | 544.71402 | .57453 | .50541 | .79941 | .79292 |
| 4.000 | .000 | -8.00000 | 2511.37903 | 1966.74471 | 544.53434 | .57700 | .58542 | .79132 | .79290 |
| 6.000 | .000 | -8.00000 | 2514.60373 | 1959.52133 | 545.17239 | .57607 | .58409 | .79668 | .79372 |
| 8.000 | .000 | -8.00000 | 2512.54620 | 1967.75583 | 544.73037 | .57995 | .58568 | .79624 | .79276 |
| 10.000 | .000 | -8.00000 | 2513.75278 | 1958.71571 | 545.03708 | .58250 | .58301 | .79469 | .79438 |
| 12.000 | .000 | -8.00000 | 2516.37339 | 1971.45059 | 545.42282 | .58173 | .58559 | .79516 | .79221 |
| 14.000 | .000 | -8.00000 | 2517.90707 | 1972.36116 | 545.54593 | .57361 | .58800 | .80007 | .79135 |
| 16.000 | .000 | -8.00000 | 2514.71823 | 1969.67972 | 545.03951 | .59212 | .57868 | .80863 | .79700 |
| 18.000 | .000 | -8.00000 | 2507.01141 | 1962.70595 | 544.30548 | .57241 | .57241 | .81291 | .80079 |
| 20.000 | .000 | -8.00000 | 2513.52756 | 1958.36923 | 545.15933 | .53982 | .57190 | .82016 | .80110 |
| 22.000 | .000 | -8.00000 | 2520.12943 | 1974.29933 | 545.82950 | .52266 | .57689 | .83912 | .79903 |
| 24.000 | .000 | -8.00000 | 2522.68758 | 1976.55684 | 546.13086 | .50511 | .58074 | .84014 | .79592 |
| GRADIENT | .00000 | -4.52492 | | | | .00162 | .00152 | .00100 | .00098 |

(GETX35) (02 AUG 78)

TABULATED DATA - 0A161 (ARC 11-37-87-094)
ARC 11-37-87-094 0A161 ORBITER + PROBES

REFERENCE DATA

SPEF = 3690.0000 SQ.FT. XMRP = 1076.6900 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

BETA = -5.000 ELEVON = .000
ALLRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/PT7 | P6/PT6 |
|----------|--------|----------|------------|------------|-----------|---------|---------|--------|--------|
| .300 | .000 | -5.00000 | 4119.57955 | 3970.79816 | 248.78149 | .29447 | .29532 | .94274 | .94089 |
| .000 | 2.000 | -5.00000 | 4123.57532 | 3874.21957 | 249.35577 | .28928 | .29512 | .94356 | .94135 |
| .000 | 4.000 | -5.00000 | 4121.73639 | 3872.64182 | 249.09460 | .28997 | .29553 | .94331 | .94159 |
| .000 | 6.000 | -5.00000 | 4121.49103 | 3872.42984 | 249.06122 | .29057 | .29540 | .94293 | .94124 |
| .000 | 8.000 | -5.00000 | 4121.81604 | 3872.72128 | 249.02479 | .29250 | .29587 | .94268 | .94163 |
| .000 | 10.000 | -5.00000 | 4119.14874 | 3870.26893 | 248.88782 | .29484 | .29564 | .94375 | .94130 |
| .000 | 12.000 | -5.00000 | 4118.78351 | 3869.92828 | 248.85522 | .28979 | .29364 | .94486 | .94023 |
| .000 | 14.000 | -5.00000 | 4118.52954 | 3869.69380 | 248.83374 | .28581 | .29804 | .94622 | .95893 |
| .000 | 16.000 | -5.00000 | 4121.14709 | 3972.09962 | 249.04764 | .28213 | .30139 | .94795 | .93811 |
| .000 | 18.000 | -5.00000 | 4121.60559 | 3872.54218 | 249.06342 | .27741 | .30348 | .94931 | .93744 |
| .000 | 20.000 | -5.00000 | 4121.58350 | 3872.43271 | 249.15882 | .27104 | .30349 | .95023 | .93581 |
| .000 | 22.000 | -5.00000 | 4122.00201 | 3872.85725 | 249.13408 | .26367 | .30660 | .95282 | .93689 |
| .000 | 24.000 | -5.00000 | 4120.84576 | 3871.79938 | 249.04639 | .25818 | .30770 | .95471 | .93689 |
| GRADIENT | | .00000 | .53823 | .46094 | .07828 | -.00838 | -.00811 | .00014 | .00004 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/PT7 | P6/PT6 |
|----------|--------|----------|------------|------------|-----------|---------|---------|--------|--------|
| .600 | .000 | -5.00000 | 2505.31174 | 1962.16986 | 544.14189 | .58370 | .58658 | .79396 | .76610 |
| .000 | 2.000 | -5.00000 | 2506.26218 | 1962.16408 | 544.09811 | .58116 | .59329 | .79560 | .76812 |
| .000 | 4.000 | -5.00000 | 2511.81845 | 1967.11473 | 544.79374 | .58043 | .59431 | .79595 | .76749 |
| .000 | 6.000 | -5.00000 | 2509.66660 | 1965.10603 | 544.55058 | .58289 | .59993 | .79445 | .76550 |
| .000 | 8.000 | -5.00000 | 2511.31799 | 1966.64787 | 544.67014 | .58639 | .59308 | .79233 | .76820 |
| .000 | 10.000 | -5.00000 | 2512.78818 | 1968.01511 | 544.77387 | .58578 | .58798 | .79270 | .76136 |
| .000 | 12.000 | -5.00000 | 2509.25366 | 1966.34464 | 544.50922 | .58804 | .59381 | .79497 | .76889 |
| .000 | 14.000 | -5.00000 | 2514.28763 | 1969.15411 | 545.50922 | .57419 | .59288 | .79972 | .76843 |
| .000 | 16.000 | -5.00000 | 2521.94302 | 1976.00002 | 545.13351 | .56428 | .58560 | .80957 | .79281 |
| .000 | 18.000 | -5.00000 | 2517.48352 | 1972.03178 | 545.45175 | .56428 | .58096 | .81144 | .79553 |
| .000 | 20.000 | -5.00000 | 2515.42865 | 1970.18526 | 545.24341 | .54159 | .58449 | .81912 | .79948 |
| .000 | 22.000 | -5.00000 | 2517.02057 | 1971.60252 | 545.41806 | .52794 | .58977 | .82731 | .79827 |
| .000 | 24.000 | -5.00000 | 2512.80313 | 1967.65872 | 544.94443 | .51333 | .58952 | .83547 | .79036 |
| GRADIENT | | .00000 | 1.37667 | 1.23623 | .44046 | -.00082 | -.00057 | .00050 | .00085 |

(SE7X4C) (02 AUG 76)

PARAMETRIC DATA

BETA = -2.000 ELEVON = .000
MILRON = .000 BDFLAP = -7.170

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PRORES

REFERENCE DATA

SPEE = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREL = 474.8000 IN. YMRP = .0000 IN. YO
BPEF = 936.6800 IN. ZMRP = 379.0000 IN. ZO
SCALE = .0300

RM/L = 3.98 GRADIENT INTERVAL = -5.00V 5.00

| MACH = | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/PT7 | P6/PT6 |
|--------|-------|----------|------------|------------|-----------|---------|--------|--------|---------|
| .300 | .000 | -2.00000 | 4121.05066 | 3872.04562 | 249.00507 | .29075 | .29302 | .94301 | .93895 |
| .000 | .000 | -2.00000 | 4127.24060 | 3877.55872 | 249.68188 | .28929 | .29223 | .94333 | .94015 |
| 2.000 | .000 | -2.00000 | 4127.63379 | 3877.91748 | 249.71631 | .28941 | .29338 | .94351 | .93563 |
| 4.000 | .000 | -2.00000 | 4127.47223 | 3877.76532 | 249.70681 | .29987 | .29738 | .94334 | .94048 |
| 6.000 | .000 | -2.00000 | 4125.35101 | 3875.94351 | 249.40753 | .29485 | .29438 | .94237 | .94163 |
| 8.000 | .000 | -2.00000 | 4125.09515 | 3875.72934 | 249.36584 | .29142 | .29244 | .94276 | .94237 |
| 10.000 | .000 | -2.00000 | 4127.15957 | 3877.49863 | 249.65987 | .29057 | .29519 | .94304 | .94084 |
| 12.000 | .000 | -2.00000 | 4127.72003 | 3877.98013 | 249.73988 | .28602 | .29878 | .94478 | .93884 |
| 14.000 | .000 | -2.00000 | 4125.48828 | 3876.07738 | 249.41088 | .28061 | .30277 | .94678 | .93707 |
| 16.000 | .000 | -2.00000 | 4127.15497 | 3877.49758 | 249.65729 | .27507 | .30614 | .94879 | .93547 |
| 18.000 | .000 | -2.00000 | 4125.50238 | 3876.97099 | 249.53143 | .27183 | .30766 | .94995 | .93541 |
| 20.000 | .000 | -2.00000 | 4122.64178 | 3973.43033 | 249.21149 | .26953 | .31033 | .95077 | .93687 |
| 22.000 | .000 | -2.00000 | 4121.59155 | 3872.43952 | 249.18207 | .26578 | .30653 | .95209 | .93687 |
| 24.000 | .000 | -2.00000 | 1.64579 | 1.46798 | .17781 | -.03034 | .00014 | .00013 | -.00005 |

RM/L = 4.25 GRADIENT INTERVAL = -5.00V 5.00

| MACH = | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/PT7 | P6/PT6 |
|--------|-------|----------|------------|------------|-----------|---------|--------|--------|---------|
| .600 | .000 | -2.00000 | 2501.29996 | 1957.66508 | 543.63489 | .58466 | .59881 | .79336 | .78474 |
| .000 | .000 | -2.00000 | 2511.32452 | 1956.74553 | 544.57901 | .58050 | .59860 | .79590 | .78487 |
| 2.000 | .000 | -2.00000 | 2512.74292 | 1967.94153 | 544.80139 | .58057 | .60118 | .79586 | .78328 |
| 4.000 | .000 | -2.00000 | 2512.11310 | 1967.36555 | 544.74756 | .58010 | .59532 | .79614 | .78625 |
| 6.000 | .000 | -2.00000 | 2517.33130 | 1971.99002 | 545.34128 | .58127 | .59833 | .79544 | .79054 |
| 8.000 | .000 | -2.00000 | 2514.05701 | 1969.06721 | 544.98981 | .58102 | .59565 | .79559 | .79278 |
| 10.000 | .000 | -2.00000 | 2508.56873 | 1954.19490 | 544.47385 | .58150 | .59616 | .79530 | .78636 |
| 12.000 | .000 | -2.00000 | 2505.03925 | 1959.84264 | 545.19662 | .57377 | .59670 | .79997 | .78603 |
| 14.000 | .000 | -2.00000 | 2518.78275 | 1973.21881 | 545.56393 | .56173 | .59192 | .80719 | .78695 |
| 16.000 | .000 | -2.00000 | 2515.10329 | 1959.86589 | 545.23941 | .56064 | .59307 | .81378 | .79069 |
| 18.000 | .000 | -2.00000 | 2515.90929 | 1970.60928 | 545.29971 | .54370 | .59305 | .81789 | .79099 |
| 20.000 | .000 | -2.00000 | 2515.35815 | 1971.02711 | 545.33105 | .53924 | .59552 | .82108 | .78575 |
| 22.000 | .000 | -2.00000 | 2514.59457 | 1969.37939 | 545.21460 | .53246 | .59516 | .82682 | .78636 |
| 24.000 | .000 | -2.00000 | 2.66074 | 2.56911 | .29153 | -.00102 | .00059 | .00062 | -.00035 |

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OF POOR QUALITY

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XPRP = 1076.6800 IN. XO
 LREF = 474.6000 IN. YPRP = .0000 IN. YO
 BREF = 936.6900 IN. ZPRP = 375.0000 IN. ZO
 SCALE = .0300

RV/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | QCOMP | M75 | M55 | P5/P17 | P6/P16 |
|--------|--------|--------|------------|------------|-----------|---------|--------|--------|---------|
| .300 | .0000 | .0000 | 4126.41028 | 3876.67133 | 249.73995 | .28943 | .29532 | .94350 | .94089 |
| | .000 | .00000 | 4122.70245 | 3873.51007 | 249.19238 | .28616 | .29540 | .94351 | .94086 |
| | 2.000 | .00000 | 4119.92072 | 3870.95203 | 248.96869 | .28539 | .30001 | .94390 | .93946 |
| | 4.000 | .00000 | 4122.39331 | 3873.22900 | 249.16431 | .28561 | .29536 | .94391 | .93957 |
| | 6.000 | .00000 | 4122.70056 | 3873.52737 | 249.17322 | .29001 | .29578 | .94329 | .94071 |
| | 8.000 | .00000 | 4120.16510 | 3871.18859 | 248.57644 | .29151 | .29792 | .94340 | .94040 |
| | 10.000 | .00000 | 4120.06338 | 3871.10510 | 249.59328 | .29093 | .29526 | .94354 | .94053 |
| | 12.000 | .00000 | 4120.50262 | 3871.47339 | 249.02524 | .28938 | .29724 | .94345 | .94053 |
| | 14.000 | .00000 | 4120.01282 | 3871.03391 | 248.57894 | .28710 | .30120 | .94438 | .93501 |
| | 16.000 | .00000 | 4120.13153 | 3871.14069 | 248.99097 | .28237 | .30566 | .94613 | .93766 |
| | 18.000 | .00000 | 4119.52328 | 3870.50745 | 248.91595 | .27507 | .30940 | .94843 | .93578 |
| | 20.000 | .00000 | 4121.31134 | 3872.19284 | 249.11853 | .27198 | .31051 | .94990 | .93534 |
| | 22.000 | .00000 | 4122.39026 | 3873.14450 | 249.24579 | .26765 | .30784 | .94990 | .93640 |
| | 24.000 | .00000 | -1.62256 | -1.42991 | -1.19257 | -.00026 | .00092 | .00010 | -.00036 |

RV/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | QCOMP | M75 | M55 | P5/P17 | P6/P16 |
|--------|----------|--------|------------|------------|-----------|---------|--------|--------|---------|
| .600 | .000 | .00000 | 2495.62769 | 1952.89360 | 542.73410 | .58438 | .59482 | .79355 | .78718 |
| | 2.000 | .00000 | 2511.31277 | 1966.73926 | 544.57352 | .57873 | .59587 | .79698 | .78594 |
| | 4.000 | .00000 | 2507.01227 | 1962.82555 | 544.18674 | .57924 | .60248 | .79740 | .78248 |
| | 6.000 | .00000 | 2524.08737 | 1950.27747 | 543.80931 | .57680 | .60310 | .79693 | .78109 |
| | 8.000 | .00000 | 2507.69569 | 1963.56752 | 544.12918 | .58038 | .59775 | .79551 | .78539 |
| | 10.000 | .00000 | 2511.66229 | 1957.06755 | 544.59464 | .58361 | .59525 | .79390 | .78691 |
| | 12.000 | .00000 | 2516.33073 | 1971.58182 | 545.23459 | .58154 | .59542 | .79503 | .78642 |
| | 14.000 | .00000 | 2516.23608 | 1971.06151 | 545.34691 | .58162 | .59390 | .79522 | .78528 |
| | 16.000 | .00000 | 2519.71591 | 1971.40170 | 545.31421 | .57691 | .59110 | .79432 | .79131 |
| | 18.000 | .00000 | 2522.01395 | 1973.76817 | 545.54465 | .56554 | .58606 | .80432 | .78946 |
| | 20.000 | .00000 | 2522.01395 | 1976.05576 | 545.95819 | .55377 | .59110 | .81193 | .78435 |
| | 22.000 | .00000 | 2520.69785 | 1974.78084 | 545.91702 | .54539 | .59343 | .81689 | .78435 |
| | 24.000 | .00000 | 2511.39393 | 1966.55000 | 544.84361 | .53636 | .60303 | .82218 | .78214 |
| | GRADIENT | .00000 | 2.844615 | 2.48299 | .36316 | -.00159 | .00191 | .00058 | -.00118 |

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 AI_RON = .000 BDFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6600 IN. X0
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .0300

BETA = 2.000 ELEVON = .060
 AIRLON = .000 BDFLAP = -7.170

PARAMETRIC DATA

RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/PT7 | P6/PT6 |
|----------|--------|---------|------------|------------|-----------|---------|--------|--------|---------|
| .300 | .000 | 2.00000 | 4115.48004 | 3867.03473 | 248.44531 | .28990 | .29364 | .94333 | .94191 |
| 2.000 | 2.000 | 2.00000 | 4114.81775 | 3866.46124 | 248.35651 | .28948 | .29543 | .94349 | .94085 |
| 4.000 | 4.000 | 2.00000 | 4114.38245 | 3866.06400 | 248.31848 | .28822 | .30103 | .94396 | .93907 |
| 6.000 | 6.000 | 2.00000 | 4114.84680 | 3866.49394 | 248.35297 | .28856 | .30061 | .94383 | .93923 |
| 8.000 | 8.000 | 2.00000 | 4113.08344 | 3864.81995 | 248.26361 | .28977 | .30039 | .94338 | .93932 |
| 10.000 | 10.000 | 2.00000 | 4112.39301 | 3864.17393 | 248.21918 | .29115 | .29505 | .94286 | .94137 |
| 12.000 | 12.000 | 2.00000 | 4112.73633 | 3864.48587 | 248.25049 | .29149 | .29478 | .94273 | .94148 |
| 14.000 | 14.000 | 2.00000 | 4110.27911 | 3862.33542 | 247.94373 | .29193 | .29593 | .94256 | .94104 |
| 16.000 | 16.000 | 2.00000 | 4113.91693 | 3865.68948 | 248.22748 | .29139 | .29550 | .94277 | .93966 |
| 18.000 | 18.000 | 2.00000 | 4115.94379 | 3867.40469 | 248.53912 | .28958 | .30580 | .94352 | .93720 |
| 20.000 | 20.000 | 2.00000 | 4119.10223 | 3870.18747 | 248.91479 | .28643 | .31026 | .94463 | .93544 |
| 22.000 | 22.000 | 2.00000 | 4122.01495 | 3872.79608 | 249.21887 | .27995 | .31069 | .94702 | .93526 |
| 24.000 | 24.000 | 2.00000 | 4117.24634 | 3868.59497 | 248.65137 | .27460 | .30666 | .94896 | .93666 |
| GRADIENT | | .00000 | -.27441 | -.24268 | -.03171 | -.00042 | .00185 | .00016 | -.00071 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH = | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/PT7 | P6/PT6 |
|----------|--------|---------|------------|------------|-----------|---------|--------|--------|---------|
| .600 | .000 | 2.00000 | 2511.72870 | 1967.34569 | 544.38303 | .58040 | .59132 | .79597 | .78932 |
| 2.000 | 2.000 | 2.00000 | 2517.44931 | 1972.01730 | 545.43201 | .57993 | .59687 | .79623 | .78992 |
| 4.000 | 4.000 | 2.00000 | 2521.57040 | 1975.62624 | 545.94418 | .57587 | .60162 | .79610 | .78501 |
| 6.000 | 6.000 | 2.00000 | 2515.75690 | 1970.71048 | 545.04642 | .57780 | .60326 | .79754 | .78200 |
| 8.000 | 8.000 | 2.00000 | 2535.99307 | 1995.65511 | 550.33798 | .58081 | .60250 | .79572 | .78247 |
| 10.000 | 10.000 | 2.00000 | 2545.28705 | 1993.36383 | 551.92422 | .58199 | .59475 | .79500 | .78722 |
| 12.000 | 12.000 | 2.00000 | 2543.39755 | 1991.80594 | 551.59161 | .58293 | .59553 | .79443 | .78674 |
| 14.000 | 14.000 | 2.00000 | 2545.79959 | 1993.84122 | 551.35847 | .58202 | .59513 | .79498 | .78699 |
| 16.000 | 16.000 | 2.00000 | 2547.21573 | 1995.13454 | 552.08121 | .58263 | .58903 | .79461 | .79072 |
| 18.000 | 18.000 | 2.00000 | 2543.28860 | 1991.55782 | 551.73080 | .58225 | .58801 | .79484 | .79134 |
| 20.000 | 20.000 | 2.00000 | 2551.08099 | 1998.48152 | 552.59499 | .57344 | .59195 | .80017 | .78994 |
| 22.000 | 22.000 | 2.00000 | 2551.13522 | 1998.45233 | 552.68289 | .56305 | .59999 | .80641 | .79461 |
| 24.000 | 24.000 | 2.00000 | 2544.39563 | 1992.52005 | 551.87598 | .54974 | .60206 | .81431 | .78274 |
| GRADIENT | | .00000 | 2.46045 | 2.07015 | .39029 | -.00088 | .00257 | .00053 | -.00198 |

(067X+3) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

PARAMETRIC DATA

BETA = 5.000 ELEVON = .000
AILLIRON = .000 BOFLAP = -7.170

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 574.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/PT7 | P6/PT6 |
|----------|---------|------------|------------|-----------|---------|---------|--------|--------|--------|
| 2.000 | 5.00000 | 4111.07709 | 3863.25070 | 247.82642 | 29254 | .29254 | .29307 | .94233 | .98983 |
| 4.000 | 5.00000 | 4111.63330 | 3863.72061 | 247.91272 | .29105 | .29105 | .29339 | .94290 | .93970 |
| 6.000 | 5.00000 | 4113.61224 | 3265.42447 | 248.18781 | .29053 | .29053 | .29933 | .94309 | .93950 |
| 8.000 | 5.00000 | 4113.71021 | 3865.51031 | 248.99889 | .29104 | .29104 | .29603 | .94290 | .94100 |
| 10.000 | 5.00000 | 4108.65503 | 3850.95779 | 247.59733 | .29259 | .29259 | .29628 | .94231 | .94090 |
| 12.000 | 5.00000 | 4111.05720 | 3863.19644 | 247.87079 | .29281 | .29281 | .29340 | .94223 | .94200 |
| 14.000 | 5.00000 | 4109.18353 | 3861.44827 | 247.73529 | .29451 | .29451 | .29483 | .94158 | .94146 |
| 16.000 | 5.00000 | 4111.46014 | 3863.48688 | 247.97327 | .29354 | .29354 | .29516 | .94191 | .94133 |
| 18.000 | 5.00000 | 4119.91577 | 3970.12659 | 248.78912 | .29373 | .29373 | .29733 | .94188 | .94050 |
| 20.000 | 5.00000 | 4124.50134 | 3875.14908 | 249.35229 | .29061 | .29061 | .30402 | .94306 | .93790 |
| 22.000 | 5.00000 | 4123.99310 | 3974.71460 | 249.27850 | .28785 | .28785 | .30779 | .94410 | .93642 |
| 24.000 | 5.00000 | 4116.33938 | 3867.85944 | 248.48297 | .28544 | .28544 | .30918 | .94500 | .93587 |
| GRADIENT | .00000 | .63393 | .54342 | .09035 | -.00050 | -.00050 | .00021 | .00019 | -.008 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/PT7 | P6/PT6 |
|----------|---------|------------|------------|-----------|---------|---------|--------|--------|---------|
| 2.000 | 5.00000 | 2539.89575 | 1988.74246 | 551.15329 | 58552 | .58552 | .60180 | .79285 | .78290 |
| 4.000 | 5.00000 | 2543.77155 | 1992.01917 | 551.75236 | .58243 | .58243 | .60236 | .79472 | .78254 |
| 6.000 | 5.00000 | 2547.62610 | 1995.52219 | 552.10391 | .58174 | .58174 | .60470 | .79417 | .78111 |
| 8.000 | 5.00000 | 2543.32291 | 1991.71693 | 551.60599 | .58335 | .58335 | .59670 | .79417 | .78603 |
| 10.000 | 5.00000 | 2542.63596 | 1990.55530 | 552.38066 | .58395 | .58395 | .59360 | .79252 | .78792 |
| 12.000 | 5.00000 | 2545.97491 | 1993.46725 | 552.50766 | .59029 | .59029 | .59309 | .78995 | .79958 |
| 14.000 | 5.00000 | 2543.11097 | 1990.86940 | 552.24149 | .59211 | .59211 | .59785 | .78684 | .78532 |
| 16.000 | 5.00000 | 2547.63428 | 1994.94937 | 552.80491 | .58762 | .58762 | .59204 | .79158 | .78688 |
| 18.000 | 5.00000 | 2552.24863 | 1999.50395 | 553.24478 | .58557 | .58557 | .58617 | .79283 | .79246 |
| 20.000 | 5.00000 | 2540.56571 | 1988.56577 | 552.00095 | .58526 | .58526 | .59380 | .79302 | .78780 |
| 22.000 | 5.00000 | 2537.67149 | 1986.08488 | 551.58661 | .58003 | .58003 | .59763 | .79619 | .78546 |
| 24.000 | 5.00000 | 2543.69781 | 1991.43520 | 552.26263 | .57354 | .57354 | .60311 | .80011 | .78209 |
| GRADIENT | .00000 | 1.93259 | 1.59493 | .23766 | .56694 | .56694 | .61063 | .80408 | .77745 |
| | | | | | -.00095 | -.00095 | .00073 | .00058 | -.00045 |

(GE7844) (02 AUG 76)

TABLATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES.

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. YMA = 1076.6800 IN. XO
LPEF = 474.8000 IN. ZMRP = 375.0000 IN. YO
SPEF = 936.6800 IN. SCALE = .0300

RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

BETA = 8.000 ELEVON = .000
AILRON = .000 BDFLAP = -7.170

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | F | QCOMP | M75 | M66 | PS/PT7 | P6/PT6 |
|----------|-------|---------|------------|------------|-----------|---------|---------|--------|--------|
| .300 | .000 | 8.00000 | 4104.20569 | 3856.64301 | 247.56268 | .29194 | .29989 | .94256 | .93951 |
| .400 | .000 | 8.00000 | 4098.65353 | 3852.26993 | 246.59363 | .29166 | .29969 | .94267 | .93959 |
| .500 | .000 | 8.00000 | 4100.82227 | 3854.04211 | 246.78015 | .29097 | .29791 | .94293 | .94028 |
| .600 | .000 | 8.00000 | 4104.97906 | 3857.68616 | 247.29291 | .28303 | .29464 | .94366 | .94153 |
| .700 | .000 | 8.00000 | 4106.95511 | 3859.44058 | 247.42456 | .29035 | .29389 | .94316 | .94182 |
| .800 | .000 | 8.00000 | 4103.75903 | 3855.68021 | 247.07896 | .29396 | .29354 | .94183 | .94195 |
| .900 | .000 | 8.00000 | 4102.73383 | 3855.74426 | 246.98956 | .29452 | .29428 | .94158 | .94157 |
| 1.000 | .000 | 8.00000 | 4103.26404 | 3856.21628 | 247.04779 | .29356 | .29608 | .94194 | .94098 |
| 1.100 | .000 | 8.00000 | 4107.78955 | 3860.25348 | 247.53697 | .29302 | .29917 | .94215 | .93979 |
| 1.200 | .000 | 8.00000 | 4109.02155 | 3861.28682 | 247.65472 | .29090 | .30292 | .94295 | .93831 |
| 1.300 | .000 | 8.00000 | 4107.82282 | 3850.31406 | 247.578.0 | .28999 | .30601 | .94329 | .93712 |
| 1.400 | .000 | 8.00000 | 4104.02478 | 3856.63127 | 247.19354 | .28903 | .30818 | .94403 | .93626 |
| 1.500 | .000 | 8.00000 | 4100.98999 | 3854.10867 | 246.88135 | .28492 | .30508 | .94519 | .93748 |
| GRADIENT | | .00000 | -.84537 | -.65023 | | -.00024 | -.00050 | .00009 | .00019 |

RN/L = 4.25 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | QCOMP | M75 | M66 | PS/PT7 | P6/PT6 |
|----------|-------|---------|------------|------------|-----------|---------|---------|--------|--------|
| .600 | .000 | 8.00000 | 2540.42752 | 1988.64767 | 551.77995 | .58873 | -.61006 | .79090 | .77780 |
| .700 | .000 | 8.00000 | 2541.56726 | 1989.64696 | 551.92032 | .58863 | -.60846 | .79096 | .78003 |
| .800 | .000 | 8.00000 | 2543.31274 | 1991.17441 | 552.13834 | .58606 | -.60537 | .79053 | .78870 |
| .900 | .000 | 8.00000 | 2543.26749 | 1991.04210 | 552.22510 | .58308 | -.59748 | .79434 | .78955 |
| 1.000 | .000 | 8.00000 | 2539.14548 | 1987.62426 | 551.52622 | .58657 | -.59703 | .78221 | .78593 |
| 1.100 | .000 | 8.00000 | 2540.48190 | 1988.83591 | 551.64600 | .55122 | -.59284 | .78938 | .79839 |
| 1.200 | .000 | 8.00000 | 2540.33543 | 1989.11717 | 551.81924 | .55481 | -.59745 | .78767 | .79357 |
| 1.300 | .000 | 8.00000 | 2542.98990 | 1991.61173 | 551.97818 | .59147 | -.59874 | .78923 | .78478 |
| 1.400 | .000 | 8.00000 | 2545.38489 | 1994.08272 | 552.30219 | .58969 | -.59752 | .79032 | .78553 |
| 1.500 | .000 | 8.00000 | 2552.10068 | 1999.15569 | 552.94501 | .58474 | -.59835 | .79333 | .78502 |
| 2.000 | .000 | 8.00000 | 2542.79172 | 1990.81525 | 551.97647 | .58199 | -.60453 | .79500 | .78121 |
| 2.100 | .000 | 8.00000 | 2537.01990 | 1985.60574 | 551.41318 | .57947 | -.60969 | .79653 | .77894 |
| 2.200 | .000 | 8.00000 | 2542.41749 | 1988.55978 | 551.86670 | .57250 | -.61047 | .80068 | .77755 |
| GRADIENT | | .00000 | .72131 | .63167 | | -.00067 | -.00117 | .00041 | .00072 |

(GE7X45) (02 AUG 76)

ARC 11-97-87-094 0A161 ORBITER + PROBES.

ABULATED DATA - 0A161 (ARC 11-97-87-094)

REFERENCE DATA

SREF = 2500.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8000 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .0300

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M65 | P5/PT7 | P6/PT6 |
|----------|--------|----------|------------|------------|-----------|---------|--------|--------|---------|
| .300 | .000 | -5.00000 | 4083.6916 | 3837.51010 | 246.18158 | .28945 | .29559 | .94350 | .94117 |
| 2.000 | 2.000 | -5.00000 | 4080.42380 | 3834.50214 | 245.92166 | .26980 | .29666 | .94337 | .94076 |
| 4.000 | 4.000 | -5.00000 | 4082.97000 | 3836.85544 | 246.11456 | .26928 | .29651 | .94356 | .94081 |
| 6.000 | 6.000 | -5.00000 | 4080.83282 | 3834.86475 | 245.96808 | .25093 | .29688 | .94294 | .94867 |
| 8.000 | 8.000 | -5.00000 | 4080.90822 | 3835.00128 | 245.98494 | .26201 | .29600 | .94253 | .94101 |
| 10.000 | 10.000 | -5.00000 | 4083.33157 | 3837.10403 | 246.22754 | .29173 | .29551 | .94264 | .94120 |
| 12.000 | 12.000 | -5.00000 | 4083.19510 | 3836.95032 | 246.24478 | .28634 | .29846 | .94391 | .94006 |
| 14.000 | 14.000 | -5.00000 | 4085.79639 | 3839.35828 | 246.43811 | .30128 | .29446 | .94539 | .93897 |
| 16.000 | 16.000 | -5.00000 | 4083.73492 | 3837.47116 | 246.26376 | .28097 | .30462 | .94655 | .93767 |
| 18.000 | 18.000 | -5.00000 | 4082.53638 | 3836.36559 | 246.17688 | .27560 | .30828 | .94860 | .93622 |
| 20.000 | 20.000 | -5.00000 | 4085.27255 | 3839.77493 | 246.49762 | .26849 | .31075 | .95113 | .93524 |
| 22.000 | 22.000 | -5.00000 | 4082.56488 | 3836.49777 | 246.06711 | .26323 | .31021 | .95297 | .93546 |
| 24.000 | 24.000 | -5.00000 | 4082.27554 | 3836.16763 | 246.10791 | .26546 | .30348 | .95563 | .93811 |
| GRADIENT | | .00000 | -.18042 | -.16366 | -.01675 | -.00004 | .00023 | .00002 | -.00008 |

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M65 | P5/PT7 | P6/PT6 |
|----------|--------|----------|------------|------------|-----------|--------|--------|---------|---------|
| .600 | .000 | -5.00000 | 2503.66928 | 1961.08160 | 542.58768 | .58016 | .58298 | .79611 | .78834 |
| 2.000 | 2.000 | -5.00000 | 2508.03470 | 1964.87794 | 543.15677 | .57902 | .59403 | .79680 | .78765 |
| 4.000 | 4.000 | -5.00000 | 2504.84750 | 1961.84412 | 543.08339 | .58076 | .59586 | .79574 | .78654 |
| 6.000 | 6.000 | -5.00000 | 2507.57928 | 1964.30646 | 543.27283 | .58165 | .59381 | .79521 | .78780 |
| 8.000 | 8.000 | -5.00000 | 2507.23706 | 1964.02145 | 543.21561 | .58408 | .58548 | .79373 | .79258 |
| 10.000 | 10.000 | -5.00000 | 2515.97717 | 1971.73871 | 544.26846 | .58367 | .58652 | .79396 | .78918 |
| 12.000 | 12.000 | -5.00000 | 2513.42737 | 1969.43301 | 543.99435 | .57889 | .59155 | .79698 | .78991 |
| 14.000 | 14.000 | -5.00000 | 2506.08347 | 1962.44601 | 543.13745 | .57339 | .59035 | .80020 | .78991 |
| 16.000 | 16.000 | -5.00000 | 2503.21774 | 1960.48369 | 542.73386 | .56564 | .58674 | .80486 | .79211 |
| 18.000 | 18.000 | -5.00000 | 2503.51517 | 1960.81487 | 542.70032 | .58545 | .58545 | .81123 | .79290 |
| 20.000 | 20.000 | -5.00000 | 2501.38257 | 1958.86124 | 542.52133 | .58178 | .58708 | .81980 | .79191 |
| 22.000 | 22.000 | -5.00000 | 2502.79318 | 1960.06981 | 542.72339 | .56608 | .58885 | .82815 | .79083 |
| 24.000 | 24.000 | -5.00000 | 2510.39862 | 1966.80496 | 543.59366 | .51047 | .58517 | .83710 | .79397 |
| GRADIENT | | .00000 | .29456 | .19063 | .10393 | .00015 | .00072 | -.00009 | -.00004 |

PARAMETRIC DATA

BETA = -5.000 ELEVON = 15.000
AILROIN = .000 BDFLAP = -7.170

(0E7X46) (02 AUG 76)

PARAMETRIC DATA

ELEVON = 15.000
BDFLAP = -7.170
ETA = -2.000
FILRON = .000

TABULATED DATA - 0A161 (ARC 11-97-87-09#)
ARC 11-97-87-094 0A161 ORBITTER + PROBES

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/P17 | P6/P16 |
|----------|--------|----------|------------|------------|-----------|---------|--------|--------|---------|
| .300 | .000 | -2.00000 | 4089.06894 | 3842.48010 | 246.58284 | .29033 | .29833 | .94316 | .94012 |
| 2.000 | 2.000 | -2.00000 | 4091.17761 | 3844.27921 | 246.58984 | .28914 | .29655 | .94361 | .93950 |
| 4.000 | 4.000 | -2.00000 | 4091.68335 | 3844.71561 | 246.56774 | .28913 | .29553 | .94362 | .93955 |
| 6.000 | 6.000 | -2.00000 | 4089.27725 | 3842.65396 | 246.62329 | .28891 | .29688 | .94370 | .94067 |
| 8.000 | 8.000 | -2.00000 | 4089.24741 | 3842.63040 | 246.61700 | .29038 | .29368 | .94315 | .94190 |
| 10.000 | 10.000 | -2.00000 | 4089.49151 | 3842.83499 | 246.64651 | .29102 | .29622 | .94291 | .94093 |
| 12.000 | 12.000 | -2.00000 | 4089.44775 | 3842.80380 | 246.64395 | .28937 | .29642 | .94353 | .93931 |
| 14.000 | 14.000 | -2.00000 | 4089.15720 | 3842.55438 | 246.60281 | .28502 | .30480 | .94515 | .93760 |
| 16.000 | 16.000 | -2.00000 | 4091.20270 | 3844.30038 | 246.70231 | .27819 | .30742 | .94760 | .93555 |
| 18.000 | 18.000 | -2.00000 | 4090.50607 | 3843.72888 | 246.77719 | .27408 | .31098 | .94914 | .93519 |
| 20.000 | 20.000 | -2.00000 | 4085.35025 | 3839.14899 | 246.20126 | .27028 | .31508 | .95051 | .93390 |
| 22.000 | 22.000 | -2.00000 | 4087.08173 | 3840.70343 | 246.37638 | .26841 | .30910 | .95116 | .93590 |
| 24.000 | 24.000 | -2.00000 | 4092.22760 | 3845.23996 | 246.98764 | .26304 | .30556 | .95394 | .93730 |
| GRADIENT | | .00000 | .55365 | .55898 | .09473 | -.00030 | .00030 | .00011 | -.00012 |

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/P17 | P6/P16 |
|----------|--------|----------|------------|------------|-----------|---------|--------|--------|---------|
| .600 | .000 | -2.00000 | 2497.21130 | 1955.14626 | 542.06506 | .58161 | .59810 | .79523 | .78417 |
| 2.000 | 2.000 | -2.00000 | 2497.06398 | 1955.15842 | 541.90466 | .58203 | .66160 | .79498 | .78302 |
| 4.000 | 4.000 | -2.00000 | 2504.31854 | 1961.54137 | 542.77719 | .58141 | .59917 | .79535 | .78452 |
| 6.000 | 6.000 | -2.00000 | 2502.25977 | 1959.92384 | 542.33094 | .58243 | .58439 | .79473 | .78744 |
| 8.000 | 8.000 | -2.00000 | 2493.75104 | 1957.72584 | 542.02420 | .58459 | .58977 | .79342 | .79027 |
| 10.000 | 10.000 | -2.00000 | 2510.34400 | 1957.57306 | 543.22600 | .58066 | .59021 | .79581 | .79000 |
| 12.000 | 12.000 | -2.00000 | 2503.96127 | 1967.58032 | 543.36368 | .57919 | .59479 | .79670 | .78729 |
| 14.000 | 14.000 | -2.00000 | 2506.05128 | 1963.25845 | 542.69028 | .57411 | .59479 | .79977 | .78720 |
| 16.000 | 16.000 | -2.00000 | 2500.93402 | 1958.61502 | 542.80283 | .58204 | .58753 | .80701 | .79163 |
| 18.000 | 18.000 | -2.00000 | 2494.98862 | 1953.29674 | 542.31980 | .58184 | .58627 | .81387 | .79118 |
| 20.000 | 20.000 | -2.00000 | 2503.14665 | 1960.56935 | 542.57532 | .54603 | .59599 | .81651 | .78646 |
| 22.000 | 22.000 | -2.00000 | 2509.37143 | 1966.01462 | 543.35681 | .52812 | .58695 | .82062 | .78621 |
| 24.000 | 24.000 | -2.00000 | 1.77681 | 1.59880 | 543.17903 | .52812 | .58695 | .79677 | .78697 |
| GRADIENT | | .00000 | .177681 | .17903 | .17903 | -.00005 | .00027 | .00003 | -.00016 |

ORIGINAL PAGE IS
OF POOR QUALITY

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XQ
LEEF = 474.8000 IN. YMRP = .0000 IN. YO
SPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH = .300
ALPHA =
2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
18.000
20.000
22.000
24.000
GRADIENT

BETA
.00000 4094.11484 3846.98866
.00000 4094.92465 3847.60187
.00000 4092.43301 3845.44922
.00000 4094.44247 3847.17023
.00000 4092.62842 3845.61499
.00000 4092.35960 3845.39587
.00000 4092.73123 3845.70773
.00000 4092.36197 3845.38095
.00000 4092.49921 3845.49753
.00000 4092.95081 3845.89420
.00000 4093.17502 3843.49951
.00000 4093.10327 3846.01486
.00000 4093.18353 3847.81122
.00000 -.42045 -.36487

M75
.28971
.28901
.28855
.28939
.28952
.23766
.29766
.30182
.30605
.31213
.31543
.31077
.26585
-.00029

M66
.29653
.28997
.30066
.28999
.29709
.23766
.29766
.30182
.30605
.31213
.31543
.31077
.26585
-.00029

BETA = .000
A1LRON = .000
ELEVON = 15.000
BOFLAP = -7.170

PARAMETRIC DATA

PS/PT7
.94340
.94384
.94384
.94347
.94187
.94287
.94294
.94383
.94476
.94716
.94875
.95008
.95206
.00011

P6/PT6
.94081
.93948
.93921
.93947
.94059
.94187
.94038
.93876
.93710
.93469
.93336
.93523
.93825
-.00040

RN/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH = .600
ALPHA =
2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
18.000
20.000
22.000
24.000
GRADIENT

BETA
.00000 2492.27872 1951.26523
.00000 2535.13979 1987.62505
.00000 2506.12231 1960.55629
.00000 2520.06754 1972.25833
.00000 2526.38132 1977.81729
.00000 2534.93524 1985.46754
.00000 2533.58134 1984.32968
.00000 2522.58533 1974.37488
.00000 2525.19815 1976.72752
.00000 2529.38464 1983.50684
.00000 2526.75348 1978.15569
.00000 2527.80078 1978.98515
.00000 2531.23740 1982.01257
.00000 3.46090 2.32275

M75
.58211
.57765
.57984
.57919
.58160
.58224
.58277
.58093
.57586
.55280
.54364
.53459
-.00057

M66
.59529
.59526
.60495
.60084
.59678
.58936
.59192
.59282
.58933
.59036
.59454
.60100
.59433
.00241

PS/PT7
.79493
.79763
.79630
.79670
.79524
.79485
.79524
.79564
.79871
.80453
.81251
.81792
.82315
.00034

P6/PT6
.78689
.78446
.78096
.78349
.78598
.79052
.78896
.78841
.79053
.78991
.78735
.78339
.78748
-.00148

(GE7X48) (02 AUG 76)

TABULATED DATA - 0A161 (ARC 11-97-87-094)
ARC 11-97-87-094 0A161 ORBITER + PROBES

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO
 LREF = 474.8000 IN. YMRP = .0000 IN. YO
 BREF = 936.8000 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .0300

BETA = 2.000 ELEVON = 15.000
 ALPHA = .300 EDFLAP = -7.170

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/P17 | P6/P16 |
|----------|--------|---------|------------|------------|-----------|---------|--------|--------|---------|
| .000 | .000 | 2.00000 | 4095.12666 | 3847.76144 | 247.35722 | .29116 | .29622 | .94285 | .94093 |
| 2.000 | 2.000 | 2.00000 | 4092.81378 | 3845.77237 | 247.04141 | .28905 | .30022 | .94365 | .93939 |
| 4.000 | 4.000 | 2.00000 | 4094.28510 | 3847.03000 | 247.25510 | .28882 | .30163 | .94374 | .93883 |
| 6.000 | 6.000 | 2.00000 | 4093.04870 | 3845.96548 | 247.07321 | .28880 | .30085 | .94374 | .93914 |
| 8.000 | 8.000 | 2.00000 | 4094.39767 | 3847.13489 | 247.26379 | .28981 | .30067 | .94336 | .93921 |
| 10.000 | 10.000 | 2.00000 | 4094.54346 | 3847.59677 | 247.34369 | .29162 | .29424 | .94268 | .94169 |
| 12.000 | 12.000 | 2.00000 | 4093.81253 | 3844.04269 | 246.76994 | .29222 | .29727 | .94245 | .94052 |
| 14.000 | 14.000 | 2.00000 | 4094.13782 | 3846.97061 | 247.16721 | .29059 | .30063 | .94307 | .93923 |
| 16.000 | 16.000 | 2.00000 | 4094.01318 | 3845.90274 | 247.11944 | .30028 | .30502 | .94318 | .93751 |
| 18.000 | 18.000 | 2.00000 | 4092.61813 | 3845.62732 | 246.99081 | .28919 | .31159 | .94359 | .93490 |
| 20.000 | 20.000 | 2.00000 | 4092.55760 | 3845.53543 | 247.00217 | .28669 | .31664 | .94453 | .93287 |
| 22.000 | 22.000 | 2.00000 | 4093.15781 | 3846.07544 | 247.08237 | .27963 | .31213 | .94714 | .93469 |
| 24.000 | 24.000 | 2.00000 | 4091.65585 | 3844.77710 | 246.87875 | .27313 | .30460 | .94949 | .93767 |
| GRADIENT | | .00000 | -.21065 | -.18286 | -.02778 | -.00058 | .00135 | .00022 | -.00052 |

| MACH | ALPHA | BETA | PT | P | OCOMP | M75 | M66 | P5/P17 | P6/P16 |
|----------|--------|---------|------------|------------|-----------|---------|--------|--------|---------|
| .000 | .000 | 2.00000 | 2523.43991 | 1975.42574 | 548.01419 | .58358 | .59356 | .79403 | .78795 |
| 2.000 | 2.000 | 2.00000 | 2532.98480 | 1983.78862 | 549.27618 | .57861 | .60224 | .79705 | .78263 |
| 4.000 | 4.000 | 2.00000 | 2522.34305 | 1973.95619 | 548.36987 | .57928 | .60681 | .79664 | .77981 |
| 6.000 | 6.000 | 2.00000 | 2522.34359 | 1973.80801 | 548.53568 | .58061 | .60159 | .79584 | .78302 |
| 8.000 | 8.000 | 2.00000 | 2534.44499 | 1984.61679 | 549.82309 | .57959 | .59872 | .79645 | .78479 |
| 10.000 | 10.000 | 2.00000 | 2530.59875 | 1981.16174 | 549.43701 | .58414 | .59288 | .79370 | .78836 |
| 12.000 | 12.000 | 2.00000 | 2528.78778 | 1979.57022 | 549.21756 | .58417 | .59905 | .79368 | .78520 |
| 14.000 | 14.000 | 2.00000 | 2528.03558 | 1979.72395 | 549.31174 | .58581 | .59366 | .79268 | .78799 |
| 16.000 | 16.000 | 2.00000 | 2535.91555 | 1988.57759 | 550.33907 | .58326 | .58443 | .79423 | .79352 |
| 18.000 | 18.000 | 2.00000 | 2537.34454 | 1987.18785 | 550.15571 | .58704 | .59100 | .79800 | .79068 |
| 20.000 | 20.000 | 2.00000 | 2535.37157 | 1985.38490 | 549.99298 | .57066 | .59863 | .80184 | .78485 |
| 22.000 | 22.000 | 2.00000 | 2531.03384 | 1981.46393 | 549.56992 | .56403 | .60886 | .80582 | .77854 |
| 24.000 | 24.000 | 2.00000 | 2525.60913 | 1976.53356 | 549.07547 | .55103 | .60911 | .81356 | .76455 |
| GRADIENT | | .00000 | -.27419 | -.36739 | .09317 | -.00108 | .00331 | .00065 | -.00203 |

PARAMETRIC DATA

BETA = 5.000 ELEVON = 15.000
AILLON = .000 BDFLAP = -7.170

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8000 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .0300

RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCCOMP | M75 | M55 | P5/PT7 | P6/PT6 |
|----------|-------|---------|------------|------------|-----------|---------|---------|--------|--------|
| .300 | .000 | 5.00000 | 4091.90802 | 3845.09164 | 246.81638 | .29692 | .29968 | .94219 | .93959 |
| 2.000 | .000 | 5.00000 | 4097.52972 | 3850.08409 | 247.48564 | .29169 | .30195 | .94265 | .93871 |
| 4.000 | .000 | 5.00000 | 4098.69287 | 3851.08252 | 247.61035 | .29098 | .29966 | .94292 | .93860 |
| 6.000 | .000 | 5.00000 | 4093.69952 | 3846.57336 | 247.12616 | .29127 | .29814 | .94281 | .94019 |
| 8.000 | .000 | 5.00000 | 4091.92636 | 3845.02399 | 246.90237 | .29242 | .29666 | .94238 | .94076 |
| 10.000 | .000 | 5.00000 | 4095.28748 | 3848.03641 | 247.25107 | .29313 | .29498 | .94192 | .94140 |
| 12.000 | .000 | 5.00000 | 4095.66168 | 3851.06652 | 247.57520 | .29313 | .29733 | .94211 | .94060 |
| 14.000 | .000 | 5.00000 | 4100.05510 | 3952.32993 | 247.73521 | .29306 | .29950 | .94213 | .93966 |
| 16.000 | .000 | 5.00000 | 4100.09558 | 3952.37668 | 247.72073 | .29306 | .30490 | .94260 | .93756 |
| 18.000 | .000 | 5.00000 | 4098.44439 | 3850.82678 | 247.61780 | .28957 | .30490 | .94345 | .93506 |
| 20.000 | .000 | 5.00000 | 4094.74744 | 3847.55252 | 247.19492 | .28822 | .31250 | .94396 | .93333 |
| 22.000 | .000 | 5.00000 | 4091.30930 | 3844.44815 | 246.86115 | .28556 | .31250 | .94495 | .93404 |
| 24.000 | .000 | 5.00000 | 4091.71375 | 3844.85493 | 246.84982 | .28117 | .30534 | .94557 | .93739 |
| GRADIENT | | .00000 | 1.69621 | 1.49772 | .19849 | -.00049 | -.00001 | .00018 | .00000 |

PR/L = 4.21 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA | BETA | PT | P | OCCOMP | M75 | M55 | P5/PT7 | P6/PT6 |
|----------|-------|---------|------------|------------|-----------|---------|--------|--------|---------|
| .600 | .000 | 5.00000 | 2535.04523 | 1985.09232 | 549.95291 | .58521 | .60002 | .79384 | .78399 |
| 2.000 | .000 | 5.00000 | 2530.24927 | 1980.90170 | 549.34756 | .58321 | .60596 | .79426 | .78034 |
| 4.000 | .000 | 5.00000 | 2525.68387 | 1976.83443 | 548.84946 | .58445 | .60579 | .79350 | .78044 |
| 6.000 | .000 | 5.00000 | 2521.55911 | 1973.12846 | 548.43866 | .58566 | .59566 | .79277 | .78667 |
| 8.000 | .000 | 5.00000 | 2535.72415 | 1985.92627 | 543.79788 | .58475 | .59245 | .79333 | .78995 |
| 10.000 | .000 | 5.00000 | 2533.23136 | 1983.71909 | 543.56177 | .59045 | .59392 | .78985 | .78773 |
| 12.000 | .000 | 5.00000 | 2535.36916 | 1985.55157 | 543.80759 | .58843 | .59821 | .79109 | .78510 |
| 14.000 | .000 | 5.00000 | 2530.75212 | 1981.33500 | 543.36413 | .58939 | .59610 | .79050 | .78639 |
| 16.000 | .000 | 5.00000 | 2530.60117 | 1981.29556 | 543.30560 | .58867 | .59130 | .79094 | .78933 |
| 18.000 | .000 | 5.00000 | 2538.38977 | 1988.30652 | 550.06325 | .57907 | .59121 | .79677 | .78939 |
| 20.000 | .000 | 5.00000 | 2537.74243 | 1987.64873 | 550.09372 | .57529 | .59979 | .79905 | .78413 |
| 22.000 | .000 | 5.00000 | 2535.20123 | 1985.41608 | 549.76516 | .57344 | .61055 | .80017 | .77750 |
| 24.000 | .000 | 5.00000 | 2534.79544 | 1984.94473 | 549.85071 | .56402 | .59463 | .80582 | .78730 |
| GRADIENT | | .00000 | -2.24033 | -2.06445 | -.21586 | -.00019 | .00144 | .00012 | -.00069 |