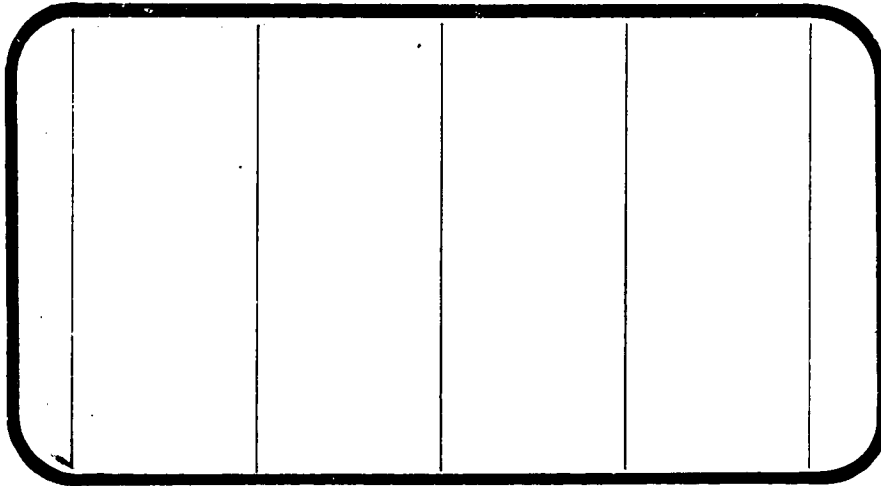




# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

CR 128794



NASA-CR-128794) RESULTS OF TESTS CA12  
AND 1A9 IN THE AMES RESEARCH CENTER  
UNITARY PLAN WIND TUNNELS ON AN  
C.030-SCALE MODEL OF THE SPACE (CHRYSLER  
CORP.) 844 P HC \$45.25 CSCL 22C

N74-19514

Unclass  
63/31 32159

## SPACE SHUTTLE

## AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA Management services



February, 1974

DMS-DR-2032  
NASA CR-128,794

VOLUME 13 of 18

RESULTS OF TESTS OA12 AND IA9 IN THE  
AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS  
ON AN 0.030-SCALE MODEL OF THE SPACE SHUTTLE  
VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS

By

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Prepared under NASA Contract Number NAS9-13247

By

Data Management Services  
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Engineering Analysis Division

Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas

WING TUNNEL TEST SPECIFICS:

Test Numbers:           ARC 11-707 (A)  
                          ARC 97-707 (B)  
                          ARC 87-707 (C)  
NASA Series Numbers:   IA9A, B, C and  
                          OA12A, C  
Test Date:               2 April - 17 May, 1973

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RESULTS OF TESTS OA10 AND IA9 IN THE  
AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS  
ON AN 0.030-SCALE MODEL OF THE SPACE SHUTTLE  
VEHICLE OA TO DETERMINE AERODYNAMIC LOADS

By

R. H. Spangler  
Rockwell International

ABSTRACT

Tests were conducted in the NASA/ARC Unitary Plan Wind Tunnels during April and May 1973, on an 0.030-scale replica of the Space Shuttle Vehicle Configuration A. Aerodynamic loads data were obtained at Mach numbers from 0.6 to 3.6.

The investigation included Tests IA9A, B and C on the integrated (launch) configuration and Tests OA10A and C on the isolated orbiter (entry configuration). The integrated vehicle was tested at angles of attack and sideslip from -8 degrees to +8 degrees. The isolated orbiter was tested at angles of attack from -15 degrees to +10 degrees and angles of sideslip from -10 degrees to +10 degrees as dictated by trajectory considerations. The effects of orbiter/external tank incidence angle and deflected control surfaces on aerodynamic loads were also investigated.



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## INTRODUCTION

The 0.030-scale Aero Loads Space Shuttle model was tested in the Unitary Plan Wind Tunnels at ARC starting April 2, and continuing through May 17, 1973 as follows:

IA9A	11-foot Transonic	April 2 to April 14, 1973
OA12A	11-foot Transonic	April 16 to April 29, 1973
IA9C	8x7-foot Supersonic	April 23 to May 1, 1973
OA12C	8x7-foot Supersonic	May 2 to May 8, 1973
IA9B	9x7-foot Supersonic	May 9 to May 17, 1973

The testing was conducted in all three legs of the Unitary Plan Wind Tunnels to obtain a Mach number range from 0.6 to 3.5. Aerodynamic loads data were obtained for the ascent and entry configurations. The effects of control surface deflections were also investigated.

This report consists of 3 volumes of force data and 15 volumes of pressure data for a total of 18 volumes arranged in the following manner:

<u>VOLUME NO.</u>	<u>CONTENTS</u>
1	IA9A force data
2	IA9B and IA9C force data
3	OA12A and OA12C force data
4	IA9A plotted pressure data
5	IA9B and IA9C plotted pressure data
6	OA12A and OA12C plotted pressure data
7	IA9A tabulated pressure data (a) orbiter fuselage (b) orbiter base (c) upper MPS nozzle
8	IA9A tabulated pressure data (a) OMS nozzle (b) body flap (c) OMS pod outside (d) lower wing surface
9	IA9A tabulated pressure data (a) upper wing surface (b) left vertical tail surface (c) right vertical tail surface (d) APU inlet (e) SRM booster base
10	IA9A tabulated pressure data (a) SRM booster (b) external tank (c) external tank base

INTRODUCTION (CONTINUED)

- 11 IA9B tabulated pressure data  
(a) orbiter fuselage  
(b) orbiter base  
(c) upper MPS nozzle  
(d) OMS nozzle  
(e) body flap  
(f) OMS pod outside  
(g) lower wing surface
- 12 IA9B tabulated pressure data  
(a) upper wing surface  
(b) left vertical tail surface  
(c) right vertical tail surface  
(d) APU inlet  
(e) SRM booster base  
(f) SRM booster  
(g) external tank  
(h) external tank base
- 13 IA9C tabulated pressure data  
(a) orbiter fuselage  
(b) orbiter base  
(c) upper MPS nozzle  
(d) OMS nozzle  
(e) body flap  
(f) OMS pod outside
- 14 IA9C tabulated pressure data  
(a) lower wing surface  
(b) upper wing surface  
(c) left vertical tail surface  
(d) right vertical tail surface
- 15 IA9C tabulated pressure data  
(a) APU inlet  
(b) SRM booster base  
(c) SRM booster  
(d) external tank  
(e) external tank base
- 16 OA12A tabulated pressure data  
(a) orbiter fuselage  
(b) orbiter base  
(c) upper MPS nozzle  
(d) OMS nozzle  
(e) body flap  
(f) OMS pod outside

INTRODUCTION (CONCLUDED)

- 17            0A12A tabulated pressure data  
              { a } lower wing surface  
              { b } upper wing surface  
              { c } left vertical tail surface  
              { d } right vertical tail surface  
              { e } AFU inlet
- 18            0A12C tabulated pressure data  
              All components

NOMENCLATURE  
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C <sub>p</sub>	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
$\alpha$	ALPHA	angle of attack, degrees
$\beta$	BETA	angle of sideslip, degrees
$\psi$	PSI	angle of yaw, degrees
$\phi$	PHI	angle of roll, degrees
$\rho$		mass density; $kg/m^3$ , slugs/ft <sup>3</sup>
<u>Reference &amp; C.G. Definitions</u>		
A <sub>b</sub>		base area; $m^2$ , $ft^2$
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\bar{L}_{REF}$ c	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; $m^2$ , $ft^2$
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
$\infty$	free stream

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>SADSAC 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; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CEL	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; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio; $C_L/C_D$
L/D <sub>f</sub>	L/DF	lift to forebody drag ratio; $C_L/C_{D_f}$

NOMENCLATURE (CONTINUED)

ADDITIONS TO STANDARD LIST

<u>SYMBOL</u>	<u>FLOT SYMBOL</u>	<u>DEFINITION</u>
$\delta_R$	RUDDER	rudder, surface deflection angle, positive deflection, trailing edge to the left; degrees.
$\delta_e$	ELEVON	elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
$\delta_{RF}$	RUDFLR	rudder flare, split rudder deflection angle, left split rudder trailing edge left and right split rudder trailing edge right, $\delta_{RF} = (\delta_{RL} + \delta_{RR})/2$ , positive deflection; degrees.
$i_o$	ORBINC	incidence angle between the orbiter and external tank, $i_o = \alpha_t - \alpha_t$ ; degrees.
$\beta_T$	BETAT	angle of sideslip of external tank.
$\alpha_T$	ALPHAT	angle of attack of external tank.
$l_B$	LB	length of orbiter body; in.
$l_T$	LT	length of external tank; in.
$l_s$	LS	length of SRM booster; in.
$l_{NM}$	LNM	length of OMS nozzle, positive direction forward of exit plane; in.
$l_{NP}$	LNP	length of MPS nozzle, positive direction forward of exit plane; in.
$b/2$	BW	wing semi-span; in.
$b_v$	BV	vertical tail span; in.
$x$	X	distance from component nose; in.
$y$	Y	lateral distance from centerline; in.

NOMENCLATURE (CONCLUDED)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$z$	$Z$	vertical distance measured from W.L. 500 (vertical tail reference root chord); in.
$c_w$	$CW$	local wing chord; in.
$c_v$	$CV$	local vertical tail chord; in.
$x/l_B$	$X/LB$	longitudinal position/orbiter body length.
$x/l_T$	$X/LT$	longitudinal position/external tank length.
$x/l_S$	$X/LS$	longitudinal position/booster length.
$x/l_{NM}$	$X/LNM$	longitudinal position/OMS nozzle length.
$x/l_{NP}$	$X/LNP$	longitudinal position/MPS nozzle length.
$x/c_w$	$X/CW$	local chordwise position/local wing chord length.
$x/c_v$	$X/CV$	local chordwise position/local vertical tail chord length.
$y/b/2$	$Y/BW$	local spanwise position/wing semi-span.
$z/b_v$	$Z/BV$	local spanwise position/vertical tail span.

## CONFIGURATIONS INVESTIGATED

The 0.030-scale aero loads model was a replica of the Space Shuttle Vehicle 2A. It consisted of four major components: the orbiter, the external oxygen and hydrogen tank (ET) and two solid rocket boosters (SRB).

On the ascent configuration, the orbiter was strut mounted from the ET on a Task Corporation MK XVI 2.5-inch diameter internal balance. The left SRB was strut mounted from the ET on a Task Corporation MK XXII 1.5-inch diameter internal balance. No attempt was made to simulate actual inter-attachments. The ET was sting mounted to the tunnel model support system on a Task Corporation 4.0-inch diameter internal balance. The right SRB was strut mounted symmetrically to the left side, but did not contain a balance. The orbiter configuration, designated as O2A, consisted of B10C5D7W87V5R5M3F4.

The entry configuration consisted of the isolated orbiter, sting mounted to the tunnel model support system on a Task Corporation MK XXA 2.5-inch diameter internal balance. Midway through the OAL2C test, the MK XXA balance was damaged and was replaced by the MK XXB for the high angles of attack. The orbiter was provided with deflectable elevons by means of interchangeable brackets, deflectable rudder by means of a pin-indexed hinge, and interchangeable rudders to obtain different speed brake flare angles. The main propulsion system engines were removed during entry configuration testing to provide sting clearance. A cover plate was provided for the strut clearance hole.

The orbiter was instrumented with 374 pressure orifices on the left wing, left side of the fuselage, vertical tail, left OMS pod and engine, left and upper MPS engine and the base. The pressures were measured using eleven Scanivalve, Inc., S-type valve modules mounted internally (a five and a six gang unit). When tested in the entry configuration, the MPS pressures were not available for measurement.

The left side of the ET was instrumented with 136 pressure orifices. These pressures were measured by means of 7 Scanivalve, Inc., S-type valve modules configured as one unit of 6 modules and one single. These valves were mounted internally in the tank. The left SRB had one gang of six S-type modules to measure 102 pressures. The right SRB was not instrumented. The pressure transducers used in the valve modules were Statham FM 131 TC differential pressure transducers, with ranges of  $\pm 10$  psid,  $\pm 12.5$  psid and  $\pm 15$  psid. Reference and calibration pressures were measured by the ARC micro manometers.

Some modifications were made to the model at the test site prior to



CONFIGURATIONS INVESTIGATED (CONTINUED)

testing. These were as follows:

1. The forward tip of the ET containing the retro rocket package (Reference NR Drawing VL78-000018) was replaced with a flush 0.90 inch radius nose (Model scale). The new nose had five pressure taps; one in the nose and four more aft of the nose on the vertical and horizontal axis on a 0.315 inch radius.
2. The ET balance cavity was enlarged by one inch on the diameter (from 5 inches to 6 inches) to provide clearance for cable routing and eliminate balance interference.
3. The clearances around both the orbiter and the SRB struts were opened to approximately 1/8 inch to prevent interference.
4. An alternate rudder hinge pin was provided to give a rudder deflection of +15 degrees.

Before and during the tests various model discrepancies developed or were discovered. These were generally minor and had only a negligible, if any, effect on the data. Significant discrepancies are noted below:

1. Pressure orifices P171 and P173 on the OMS pod base were omitted.
2. During the test certain pressure taps developed leaks or became plugged. Data from these taps are questionable and should be used with caution. Difficulties in checking may have resulted in erroneous indications of leakage. Repairs were made to correct leaking or plugged pressure instrumentation, whenever possible, as the test progressed. The following list gives those taps that were indicated as bad on the various leak and response checks:

ARC Facility	Run Nos.	Orifice numbers with questionable pressure data
11'	2-4	72, 163, 427
	5-118	31, 100, 123, 163, 201, 427
	119-160	16, 98, 101, 107, 333, 427
	161-170	16, 98, 101, 107, 333, 427 + 306, 307, 327, 328, 336, 337, 356, 357, 375

CONFIGURATIONS INVESTIGATED (CONCLUDED)

<u>ARC Facility</u>	<u>Run Nos.</u>	<u>Orifice numbers with questionable pressure data</u>
11'	171-182	16, 47, 53, 75, 78, 98, 107, 201, 236, 237, 238, 307, 327, 365, 427
↓	183-189	Same as (171-182) + 7, 447, 525
	190-211	Same as (171-182)
8'x7'	220-234	20, 21, 24, 74, 326, 327, 336, 424, 427, 752, 868, 871
↓	235-285	74, 326, 327, 336, 424, 427, 752, 868, 871
	286-300	74, 107, 115, 124, 129, 138, 326, 327, 336, 427
	301-305	74, 326, 327, 336, 427
↓	306-333	74, 326, 327, 427
9'x7'	340-396	5, 325, 326, 327, 424, 427, 526, 752, 868, 871

## TEST FACILITIES DESCRIPTION

### Ames 11 x 11-Ft. Transonic

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.

### Ames 8 x 7-Ft. Supersonic

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  $1.0 \times 10^6$  to  $5.0 \times 10^6$ .

### Ames 9 x 7-Ft. Supersonic

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 streamwise direction, the fixed-contour block that forms the floor of the nozzle.

## DATA REDUCTION

Standard procedures were utilized to reduce force and pressure data to coefficient form. The following dimensional constants were applied:

### Reference Dimensions and Constants (Model Scale)

$$S_{\text{Ref.}} = 2.421 \text{ ft}^2$$

Orbiter reference area

$$L_{\text{Ref.}} = 39.849 \text{ in.}$$

Orbiter reference length

### Base Areas (Model Scale)

$$A_{\text{BOI}} = 0.1903 \text{ Ft}^2$$

Orbiter base area, integrated

$$A_{\text{BOA}} = 0.2362$$

Orbiter base area, sting mounted

$$A_{\text{EMPSU}} = 0.0417$$

Orbiter upper MPS base area

$$A_{\text{EMPSL}} = 0.0853$$

Orbiter lower MPS base area

$$A_{\text{BACPS}} = 0.0310$$

Orbiter ACPS base area on OMS pod

$$A_{\text{BOMS}} = 0.0231$$

Orbiter OMS nozzle base area

$$A_{\text{BPOD}} = 0.0257$$

Orbiter OMS pod base area

$$A_{\text{CO}} = 0.0611$$

Orbiter sting cavity base area

$$A_{\text{BNOZ}} = 0.0564$$

SRM nozzle base area

$$A_{\text{BSKIRT}} = 0.1729$$

SRM nozzle skirt base area

$$A_{\text{BETI}} = 0.3189$$

ET Base area

$$A_{\text{CET}} = 0.1964$$

ET Sting cavity base area

TEST : OA12 / 1A9

TABLE I.

DATE : May, 1973

## TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. foot)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.6	$4.0 \times 10^6$	540	120° NOM.
0.9	4.5	800	
1.1	4.0	800	
1.25	3.0	630	
1.4	3.0	650	
1.55	2.8	600	
2.0	2.3	490	
2.5	1.5	300	
3.0	2.0	350	Y
3.5	2.0	300	

FIVE (5) TASK CORPORATION BALANCES  
BALANCE UTILIZED: WITH CAPACITIES AS FOLLOWS:

	ISOLATED ORBITER		INTEGRATED VEHICLE		
	MARK IIA	MARK IIB	ORB MARK III	SRB MARK III	ET MARK IIB
NF	3000	3000	2400	1250	4000
NA	3000	3000	2400	1250	4000
YF	1500	1500	1200	500	2000
YA	1500	1500	1200	500	2000
X	600	600	1500	200	1000
R	4000	4000	4000	1000	10,000
SIZE	2.5"	2.5"	2.5"	1.5"	4.0"

COMMENTS: THE MARK IIA, 2.5 IN. DIA. BALANCE WAS DAMAGED AFTER RUN 319. THE MARK IIB WAS SUBSTITUTED FOR RUN 320 AND SUBSEQUENT RUNS

TABLE II.

TEST: ARC 11-707(IA9A)		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 4-27-73									
DATA SET IDENTIFIER	CONFIGURATION	SCHD. PARAMETERS/VALUES					NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)					TEST RUN NUMBERS								
		$\alpha$	$\beta$	$\delta_e$	$\delta_r$	$\delta_{FR}$		$L_0$	0.6	0.9	1.1	1.25	1.4								
RBMx 01	$\phi_{2A} + S_3 + T_9$	A	0	0	0	0	1.5	4	3	5	6	7									
02		A	0	T	T	T	0.5	5	8	18	28	38	18								
03		-B	B			T	T	4	9	19	29	39									
04		-6	T					T	10	20	30	40									
05		-4						T	11	21	31	41									
06		-2						T	12	22	32	42									
07		0						5	13	23	33	43	19								
08		2						4	14	24	34	44									
09		4						T	15	25	35	45									
10		6						T	16	26	36	46									
11		8						T	17	27	37	47									
12		-B	C					2			97	102									
13		-6	T					T			118	111									
14		-4						T			98	103									
15		-2						T			117	112									
16		0						T			99	104									
17		2						T			116	113									
18		4						T			100	105									
									7	13	19	25	31	37	43	49	55	61	67	75	76

$\alpha$  OR  $\beta$  SCHEDULES       $\alpha A = -0, -6, -4, -2, 0, 2, 4, 6, 8$       COEFFICIENTS  
 $\beta B = -0, -6, -4, -2, 0, 2, 4, 6, 8$

$\beta c = -0, -4, 0, 4, 8$       IDVAR (1)      IDVAR (2)      NDV

TABLE II. CONTINUED

TEST: ARC - 11 - 707 (IA 9.7)		DATA SET/RUN NUMBER COLLATION SUMMARY													DATE: -- --																																												
DATA SET IDENTIFIER	CONFIGURATION	SCHD. PARAMETERS/VALUES		NO. OF RUNS	MACH NUMBERS ( OR ALTERNATE INDEPENDENT VARIABLE )						TEST RUN NUMBERS																																																
		$\alpha$	$\beta$		$\delta e$	$\delta R$	$\delta FR$	$C_0$	0.6	0.9	1.1	1.25	115	114	101	100	60	69	61	70	62	71	63	72	64	73	65	74	66	75	67	76	68	77	78	88	79	89	80	90	81	91	82	92	83	93	84	94											
RBMx 19	$\phi_{2a} + S_3 + T_7$	6	0	0	-5	0	0.5	2																																																			
20		8	T	T	-5	T	T	T																																																			
21		-8			-10																																																						
22		-6			T																																																						
23		-4																																																									
24		-2																																																									
25		0																																																									
26		2																																																									
27		4																																																									
28		6																																																									
29		8																																																									
30		-8			-15																																																						
31		-6			T																																																						
32		-4																																																									
33		-2																																																									
34		0																																																									
35		2																																																									
36		4																																																									

$\alpha$  OR  $\beta$   
SCHEDULES

COEFFICIENTS

7 13 19 25 31 37 43 49 55 61 67 75 76  
IDVAR (1) IDVAR (2) NOV

TABLE II. CONTINUED

TEST: ARC 11-707				DATA SET/RUN NUMBER COLLATION SUMMARY								DATE:	
DATA SET IDENTIFIER	CONFIGURATION	SCHD. PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS ( OR ALTERNATE INDEPENDENT VARIABLE )						
		$\alpha$	$\beta$	$\delta_e$	$\delta_R$		$\delta_{FR}$	$L_0$	0.6	0.9	1.1	1.25	
RBMx 37	$\phi_{2A} + S_2 + T_2$	C	0	-15	0	0.5		85		95			
38	↓	B	T	-15	T	T		87		96			
39		-8		-5				50		55			
40		-4		T				51		56			
41		0		T				52		57			
42		4						53		58			
43		8	↓	↓	↓	↓		54		59			
44		A	0	0	↓	-1.2	4	107	108	110			

1	7	13	19	25	31	37	43	49	55	61	67	75	76	
COEFFICIENTS												IDVAR (1)	IDVAR (2)	NDV

α OR β SCHEDULES





TABLE II. CONTINUED

TEST: <i>PBC 97-707 (IA9E)</i>		DATA SET/RUN NUMBER COLLATION SUMMARY				DATE: <i>5-17-73</i>																			
DATA SET IDENTIFIER	CONFIGURATION	SCHD. PARAMETERS/VALUES		NO. OF RUNS	MACH NUMBERS ( OR ALTERNATE INDEPENDENT VARIABLE )		TEST RUN NUMBERS																		
		$\alpha$	$\beta$	$\delta e$	$\delta R$	$\delta \theta$	$\delta \theta$																		
PBC 19	<i>02A + 53 + T9</i>	0	C	0	-10	0.5	0	2	1.55	2.0	375	381													
T 20		4	T	T	T	T	T	T	376	382	376	382													
21		6	T	T	T	T	T	T	377	383	377	383													
22		6	T	T	T	T	T	T	378	384	378	384													
23		-8	T	+15					385	391	385	391													
24		-4	T						386	392	386	392													
25		0	T						387	393	387	393													
26		4	T						388	394	388	394													
27		6	T	T	T	T	T	T	389	395	389	395													
28		8	T	T	T	T	T	T	390	396	390	396													
7																									
13																									
19																									
25																									
31																									
37																									
43																									
49																									
55																									
61																									
67																									
75.76																									
		COEFFICIENTS										IDVAR (1)	IDVAR (2)	NDV											
		SCHEDULES																							

TABLE II. CONTINUED

TEST: ARC 8*7-707 (1A9C)		DATA SET/RUN NUMBER COLLATION SUMMARY								DATE: 5-1-73													
DATA SET IDENTIFIER	CONFIGURATION	SCHED. PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)																
		$\alpha$	$\beta$	$\delta\epsilon$	$\delta R$		$\delta FR$	$\delta$	2.5	3.0	3.5	TEST RUN NUMBERS											
RBNx01	$\theta_{2A} + S_3 + T_9$	A	0	0	0	0	0.5	3	240	230	220												
<u>02</u>		-8	B	T	T	T	T	T	241	231	221												
03		-6	T						242	232	222												
04		-4	T						243	233	223												
05		-2	T						244	234	224												
06		0	T						245	235	225												
07		2	T						246	236	226												
08		4	T						247	237	227												
09		6	T						248	238	228												
10		8	T						249	239	229												
11		-8	C				-15		267	256	250												
12		-4	T						266	257	251												
13		0	T						265	258	252												
14		4	T						264	259	253												
15		6	T						263	260	254												
16		8	T						262	261	255												

$\alpha$  OR  $\beta$  SCHEDULES  $\alpha A = -8, -6, -4, -2, 0, 2, 4, 6, 8$   
 $\beta B = -8, -6, -4, -2, 2, 4, 6, 8$

COEFFICIENTS  $\beta C = -8, -6, -4, 0, 4, 6, 8$

7 13 19 25 31 37 43 49 55 61 67 73 75 76

TABLE II. CONTINUED

TEST: <b>ARC 8x7-707 (IARC)</b>		DATA SET/RUN NUMBER COLLATION SUMMARY							DATE: <b>5-1-73</b>																																								
DATA SET IDENTIFIER	CONFIGURATION	SCHD. PARAMETERS/VALUES				NO. OF RUNS	WACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)																																										
		$\alpha$	$\beta$	$\delta R$	$\delta \theta$		2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0																																	
<b>8BNx17</b>	$\delta 2A$ , $S_3 + T_9$	-8	C	0	-10	0	0.5	3	274	280*	268																																						
<b>18</b>		-4	T	T	T	T	T	T	275	281*	269																																						
<b>19</b>		0	T	T	T	T	T	T	276	282*	270																																						
<b>20</b>		4	T	T	T	T	T	T	277	283*	271																																						
<b>21</b>		6	T	T	T	T	T	T	278	284*	272																																						
<b>22</b>		8	T	T	T	T	T	T	279	285*	273																																						

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

10/AF (1) 15/AF (2) 20/AF (3)

COEFFICIENTS  
**\* NOTE: RUNS 280-285: A SCHEDULE IS:**  
-81-4.0, 4.8

$\alpha$   $\delta$   $\beta$   
 SCHEDULES

TABLE II. CONTINUED

TEST: ARES 11-707 (0412A)		DATA SET/RUN NUMBER COLLATION SUMMARY											DATE: 4-23-73							
DATA SET IDENTIFIER	CONFIGURATION	SCHD. PARAMETERS/VALUES			NO. OF RUNS	MACH NUMBERS ( OR ALTERNATE INDEPENDENT VARIABLE )														
		$\alpha$	$\beta$	$\delta_e$		$\delta_R$	$\delta_{FR}$	0.6	0.9											
02	B <sub>10</sub> C <sub>5</sub> D <sub>7</sub> N <sub>2</sub> F <sub>4</sub> M <sub>3</sub> N <sub>0</sub> V <sub>5</sub> R <sub>3</sub> W <sub>7</sub> F <sub>10</sub>	A	0	0	0	0	0	0	0	2	119	125								
03		0	B	T	T	T	T	T	T	T	120	126								
04		5	T	T	T	T	T	T	T	T	121	127								
05		10	T	T	T	T	T	T	T	T	122	128								
06		15	T	T	T	T	T	T	T	T	123	129								
07		20	T	T	T	T	T	T	T	T	124	130								
08		0	C	-10	T	T	T	T	T	T	131	136								
09		5	T	T	T	T	T	T	T	T	132	137								
10		10	T	T	T	T	T	T	T	T	133	138								
11		15	T	T	T	T	T	T	T	T	134	139								
12		20	T	T	T	T	T	T	T	T	135	140								
13		0		-20	T	T	T	T	T	T	141	146								
14		5	T	T	T	T	T	T	T	T	142	147								
15		10	T	T	T	T	T	T	T	T	143	148								
16		15	T	T	T	T	T	T	T	T	144	149								
17		20	T	T	T	T	T	T	T	T	145	150								
18		0	D	10	0	T	T	T	T	T	151	156								
19		5	D	10	0	T	T	T	T	T	152	160								
7		13	19	25	31	37	43	49	55	61	67	75.76								
		COEFFICIENTS																		
$\alpha$ OR $\beta$		$\alpha$ A = MAX, 0, 5, 10, 15, 20, 25										IDVAR (1)		IDVAR (2)		NDV				
SCHEDULES		$\beta$ B = -10, -5, 5, 10										$\beta$ C = 8, -4, 0, 4, 8		$\beta$ D = -10, 0, 10		$\beta$ E = -5, 0, 5				

TABLE II. CONTINUED

TEST: AXES 11-707 (0A12A)		DATA SET/RUN NUMBER COLLATION SUMMARY											DATE: 4-23-73														
DATA SET IDENTIFIER	CONFIGURATION	SCHD. PARAMETERS/VALUES		NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)					TEST RUN NUMBERS																	
		$\alpha$	$\beta$		$\delta e$	$\delta R$	$\delta FR$	0.6	0.9																		
19	B <sub>10</sub> C <sub>1</sub> D <sub>1</sub> N <sub>2</sub> F <sub>4</sub> M <sub>3</sub> N <sub>6</sub> V <sub>5</sub> R <sub>3</sub> M <sub>8</sub> T <sub>10</sub> E <sub>10</sub>	10	D	+10	0	0	2	153	157																		
20		15	T	T	T	T	T	154	159																		
21		20	T	T	T	T	T	155	158																		
22		0	C	-10				161	166																		
23		5	T	T	T	T	T	162	167																		
24		10	T	T	T	T	T	163	168																		
25		15	T	T	T	T	T	164	169																		
26		20	T	T	T	T	T	165	170																		
27		-4	E	-20				171	182																		
28		0	C					172	181																		
29		5	T	T	T	T	T	173	180																		
30		10	T	T	T	T	T	174	179																		
31		15	T	T	T	T	T	175	178																		
32		20	T	T	T	T	T	176	177																		
33		-4	E	0	0	40		183	189																		
34		0	C					184	190																		
35		5	T	T	T	T	T	185	191																		
36		10	T	T	T	T	T	186	192																		

COEFFICIENTS  
 $\alpha A = -MAX, 0, 5, 10, 15, 20, 25$   
 $\beta B = -10, -5, 5, 10$

IDENTIFIERS  
 $\beta C = -8, -4, 0, 4, 8$   
 $\beta D = -10, 0, 10$   
 $\beta E = -5, 0, 5$



TABLE II. CONTINUED

TEST: 87-707 (0A12C)		DATE: 5-9-73										
DATA SET/RUN NUMBER COLLATION SUMMARY												
DATA SET IDENTIFIER	CONFIGURATION	SCHD. PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)					
		$\alpha$	$\beta$	$\delta c$	$\delta r$		$\delta \epsilon r$	$\delta \epsilon r$	2.5	3.5		
01	B10C G7M E & M G1E V8 F V12 F	A	0	0	0	40	2	290	286			
02	_____	B	0	0	0	40	2	293	289			
03	_____	10 C						292	288			
04	_____	20 C						291	287			
05	_____	0 D						297	294			
06	_____	10						298	295			
07	_____	20						299	296			
08	_____	0						303	300			
09	_____	10						304	301			
10	_____	20						305	302			
11	_____	0						309	306			
12	_____	10						310	307			
13	_____	20						311	308			
14	_____	0						317	314			
15	_____	10						318	315			
16	_____	20						319	316			
17	_____	E 0						322	320			
18	_____	30 D						323	321			

TEST RUN NUMBERS												
1	7	13	19	25	31	37	43	49	55	61	67	75 76

COEFFICIENTS	
$\alpha$ OR $\beta$ SCHEDULES	IDVAR (1) IDVAR (2) NDV
$\alpha A = 0, 5, 10, 15, 20$	$BC = 6, 3, 3, 6$
$AB = 3, -3$	$BD = 6, 3, 0, 3, -6$
$\alpha E = 15, 20, 25, 30, 35, 40$	





TABLE III. MODEL COMPONENT DIMENSIONAL DATA

MODEL COMPONENT: BLO Body

GENERAL DESCRIPTION: Fuselage, 2A Configuration, Lightweight Orbiter, per  
Rockwell Lines VL70-000089 "B."

Scale Model = .030

DRAWING NUMBER: VL70-000089 "B"  
VL70-000092, 93, 94 "A"

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ IN	<u>1328.3</u>	<u>39.8490</u>
Max. Width ~ IN (@X <sub>0</sub> = 1528.3)	<u>265.0</u>	<u>7.9500</u>
Max. Depth ~ IN. (@X <sub>0</sub> = 1480.52)	<u>248.0</u>	<u>7.4400</u>
Fineness Ratio	<u>5.012</u>	<u>5.012</u>
Area ~ Ft <sup>2</sup>		
Max. Cross-Sectional	<u>456.4</u>	<u>.41076</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III. (CONTINUED)

MODEL COMPONENT: Canopy - C5

GENERAL DESCRIPTION: 2A Configuration per Lines VL70-000092

Scale Model = .030

DRAWING NUMBER: VL70-000092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length (STA FWD Bulkhead)	<u>391.0</u>	<u>11.730</u>
Max. Width (T.E. Bulkhead)	<u>560.0</u>	<u>16.800</u>
Max. Depth (WP = 42.9 22 to = 500)	<u>          </u>	<u>          </u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III. (CONTINUED)

MODEL COMPONENT: Manipulator Housing D-7

GENERAL DESCRIPTION: 2A Configuration per Rockwell Lines VL70-000093

Scale Model = .030

DRAWING NUMBER: VL70-000093

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ IN.	881.00	26.430
Max. Width ~ IN.	51.00	1.530
Max. Depth ~ IN.	23.00	.690
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		
E Fuselage	BP = 0.00	
	WP = 500.0 IN. FS	
	X.426.0 to 1307.0 IN. FS	

TABLE III. (CONTINUED)

MODEL COMPONENT: WING-W87 New Light Weight Orbiter

GENERAL DESCRIPTION: Orbiter Configuration Per Lines VL70-000093.

NOTE: (Dihedral Angle is defined at the lower surface of the Wing at the 75.33% element line projected into a plane perpendiculary.

Scale Model = 030

TEST NO.

DWG. NO. VL70-000093

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area (Theo.) Ft <sup>2</sup>	2690.00	2.42100
Planform	936.68	28.10040
Span (Theo) In.	2.265	2.265
Aspect Ratio	1.177	1.177
Rate of Taper	0.200	0.2000
Taper Ratio	3.5000	3.500
Dihedral Angle, degrees	3.000	+3.00
Incidence Angle, degrees	3.500	+3.000
Aerodynamic Twist, degrees		
Sweep Back Angles, degrees		
Leading Edge	45.00	45.00
Trailing Edge	-10.24	-10.24
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.O.O.	689.24	20.67720
Tip, (Theo) B.P. 46834	137.85	4.13550
MAC	474.81	14.24430
Fus. Sta. of .25 MAC	1136.89	34.10670
W.P. of .25 MAC	299.20	8.97840
B.L. of .25 MAC	182.13	5.46390
183.13		
<u>EXPOSED DATA</u>		
Area (Theo) Ft <sup>2</sup>	1752.29	1.57706
Span, (Theo) In. BP108 to 468.341	720.68	21.62040
Aspect Ratio	2.058	2.058
Taper Ratio	.2451	.2451
Chords		
Root BP108	562.40	16.8720
Tip $1.00 \frac{b}{2}$	137.85	4.13550
MAC	393.03	11.79090
Fus. Sta. of .25 MAC	1185.31	35.55930
W.P. of .25 MAC	300.207	9.00621
B.L. of .25 MAC	143.76	4.31280
Airfoil Section (Rockwell Mod NASA)		
XXXX-64		
Root $\frac{b}{2} = .425$	.10	.10
Tip $\frac{b}{2} = 1.00$	.12	.12
Data for (1) of (2) Sides		
Leading Edge Cuff		
Planform Area Ft <sup>2</sup>	120.33	1.0830
Leading Edge Intersects Fus M. L. @ Sta	560.0	16.80
Leading Edge Intersects Wing @ Sta	1035.0	31.050

TABLE III. (CONTINUED)

MODEL COMPONENT: Elevon E-18

GENERAL DESCRIPTION: 2A Configuration Per W-87 Rockwell Lines VL 70-000093

Data for (1) of (2) Sides

Scale Model = .030

DRAWING NUMBER: VL 70-000093

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area ~ Ft <sup>2</sup>	<u>205.52</u>	<u>.18497</u>
Span (equivalent) ~ IN.	<u>353.34</u>	<u>10.60020</u>
Inb'd equivalent chord	<u>114.78</u>	<u>3.44340</u>
Outb'd equivalent chord	<u>55.00</u>	<u>1.6500</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>.208</u>	<u>.208</u>
At Outb'd equiv. chord	<u>.400</u>	<u>.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>-10.24</u>	<u>-10.24</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line) Ft <sup>3</sup>	<u>1548.07</u>	<u>.04180</u>
Product of Area Moment		

TABLE III. (CONTINUED)

MODEL COMPONENT: VERTICAL - V5 (Light Weight Orbiter Configuration)

GENERAL DESCRIPTION: Centerline Vertical Tail, Double Wedge Airfoil with Rounded Leading Edge

Scale Model = .030

DRAWING NUMBER: VL70-000095

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area (Theo) Ft <sup>2</sup>	<u>413.25</u>	<u>.37192</u>
Planform		
Span (Theo) In	<u>315.72</u>	<u>9.47160</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>.404</u>	<u>.404</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.249</u>	<u>26.249</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>8.05500</u>
Tip (Theo) WP	<u>108.47</u>	<u>3.25410</u>
MAC	<u>199.81</u>	<u>5.99430</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>43.90500</u>
W. P. of .25 MAC	<u>635.522</u>	<u>19.06566</u>
B. L. of .25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil Section		
Leading Wedge Angle Deg	<u>10.000</u>	<u>10.000</u>
Trailing Wedge Angle Deg	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius IN.	<u>2.00</u>	<u>.06</u>
Void Area Ft <sup>2</sup>	<u>13.17</u>	<u>.01185</u>
Blanketed Area Ft <sup>2</sup>	<u>12.67</u>	<u>.01140</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: R-5 Rudder

GENERAL DESCRIPTION: ZA Configuration per Rockwell Lines VL 70-000095

Scale Model = .030

DRAWING NUMBER: VL 70-000095

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area ~ Ft <sup>2</sup>	<u>106.38</u>	<u>.09574</u>
Span (equivalent) ~ IN.	<u>201.0</u>	<u>6.030</u>
Inb'd equivalent chord	<u>91.585</u>	<u>2.74755</u>
Outb'd equivalent chord	<u>50.833</u>	<u>1.52499</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>
Tail. y Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Normal to hinge line) ~ Ft <sup>3</sup>	<u>526.13</u>	<u>.01421</u>
Product of Area and Mean Chord		



TABLE III. (CONTINUED)

MODEL COMPONENT: OMS Pod -M3

GENERAL DESCRIPTION: 2A Light Weight Configuration per Rockwell Lines

VL70-000094A

Scale Model = .030

DRAWING NUMBER: VL70-000094A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>346.0</u>	<u>10.380</u>
Max. Width $X_1 = 1450.0$	<u>108.0</u>	<u>3.240</u>
Max. Depth $X_0 = 1500.0$	<u>113.0</u>	<u>3.390</u>
Fineness Ratio	_____	_____
Area		
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

L of OMS Pod

WP = 463.9 IN. FS      WP 400 + 63.9 = 463.9

BP = 80.0 IN. FS

Length 1214.0 to 1560.0' = 346.0 IN. FS

TABLE III. (CONTINUED)

MODEL COMPONENT: FL Body Flap

GENERAL DESCRIPTION: 2A Configuration per Rockwell Lines VL70-000094A

Scale Model = .030

DRAWING NUMBER: VL70-000094A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>84.70</u>	<u>2.541</u>
Max. Width	<u>265.00</u>	<u>7.950</u>
Max. Depth	<u>          </u>	<u>          </u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area ~ Ft <sup>2</sup>		
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>142.64</u>	<u>.12838</u>
Wetted	<u>          </u>	<u>          </u>
Base Ft <sup>2</sup>	<u>38.65</u>	<u>.03478</u>

TABLE III. (CONTINUED)

MODEL DIMENSIONAL DATA

MODEL COMPONENT : S3-Booster Solid Rocket Motor

GENERAL DESCRIPTION : 2A Configuration Per Rockwell Lines VL77-000012  
& VL72-000061 "B"

Body of Revolution; Data for (1) of (2) Sides

Scale Model = .030

DRAWING NUMBER : VL 77-000012

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length -IN.	<u>1732.0</u>	<u>51.96</u>
Max Width (DIA) IN. BSRM Tank	<u>142.0</u>	<u>4.260</u>
Max Depth (DIA) Aft Skirt	<u>259.0</u>	<u>7.77</u>
Fineness Ratio L/D	<u>6.687</u>	<u>6.687</u>
Area ~ Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional (Aft Skirt)	<u>365.87</u>	<u>.32928</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

Ref.

FS (Orbiter) = 0.00 = 747.99 IN. ET = 200.0 IN. BSRM

WP (BSRM) = WP 400(Orbiter) - 344.413 = 55.587 IN.

BP (Orbiter) = 0.00 = 243.0 IN. BSRM

TABLE III. (CONCLUDED)

MODEL COMPONENT: EXTERNAL TANK - T9

GENERAL DESCRIPTION: 2A Configuration

NOTE: T9 identical to T8 w/o retro pkg., nose w/30"R F.S.

DRAWING NUMBER

NONE

DIMENSION:

FULL SCALE

MODEL SCALE

Length - IN.

1858

55.740

Max Width (Dia) - IN.

324.0

9.720

Max Depth

Fineness Ratio L/D

5.73457

5.73457

Area - FT<sup>2</sup>

Max Cross-Sectional

572.56

0.51530

Planform

Wetted

Base

Nose, Radius, IN.

30.0

ORBITER BODY

ORBITER STATION ~ X <sub>0</sub>		RADIAL LOCATION θ ~ DEGREES																			
FULL	MODEL	X <sub>c</sub> /R	0	20	40	55	70	90	105	110	120	135	142	150	157	162	165	169	172	180	
200	6.00	0	20																		
210	6.30	.063	21				22														23
225	6.75	.019	24	25	26	27	28	29			30			31							32
245	7.35	.034	33	34	35	36	37	38			39			40							41
280	8.40	.060	42	43	44	45	46	47			48			49							50
300	11.40	.136	51	52	53	54	55	56			57			58							59
400	12.00	.151													61						
420	12.30	.158																			
430	12.90	.173	62	63	64	65	66	67			68		73	69		70					72
460	13.80	.196																			
500	15.00	.226	74	75	76	77	78	79			80			81			82				83
560	16.80	.271	84		85		86	87			88			89			90				91
625	18.75	.320	92		93		94	95			96			97			98				99
725	21.75	.395	100		101		102	103			104			105			106				107
880	26.40	.512	108		109		110	111			112			113			114				115
980	29.40	.587	116		117		118														
1080	32.40	.662					119	120			121			122			123				124
1180	35.40	.738					125	126			127			128							129
1245	37.35	.787			130		131	132			134			136			137				138
1300	39.00	.828			139		140	141			143	135		145			146				
1375	41.25	.885			147		148	149			151	144		153			154				
1430	42.90	.926			155		156	157			159	152		161			162				
1480	44.40	.964	163				164	165			167	160		169			170				
1530 <sup>a</sup>	45.90	1.001								171		168									
1530 <sup>b</sup>	45.90	1.001								172											

a OMS POD, INSIDE

b OMS POD, OUTSIDE

a. Orbiter body

Table IV. Pressure Orifice Locations

ORBITER BASE

LOCATION	ORIFICE NUMBERS
ORBITER BASE (INTEGRATED)	1, 2, 3, 4
LEFT MPS NOZZLE BASE	5
UPPER MPS NOZZLE BASE	6
ACPS BASE AREA ON OMS POD	7
OMS NOZZLE BASE	8
OMS POD BASE	9
ORBITER BASE (STING MOUNT)	11, 12, 13, 14
ORBITER STING CAVITY	15, 16

BODY FLAP LWR SURFACE

ORB. STA. ~ X <sub>0</sub>	θ ~ DEG	
FULL MODEL	0	40
1580	47.40	175 176

MPS NOZZLE

X ~ IN.		θ ~ DEG					
FULL	MODEL	0	90	135	180	225	270
25	0.75	181	182	183	184	185	186
50	1.50	187	188	189	190	191	192
75	2.25		193	194	195	196	197

OMS NOZZLE

X ~ IN		θ ~ DEG		
FULL	MODEL	135	180	225
10	0.30	177	178	179
20	0.60		180	

VERTICAL TAIL

WATER FLAIRE ~ Z <sub>0</sub>		X/C ~ THEORETICAL VERTICAL CHORD								
FULL	MODEL	7▼	0	.05	.15	.30	.52	.65	.775	.90
525	15.75	.079								
550	16.50	.158	L	411	412	413	414	415	416	
			R	511	512	513	514	515	516	
600	18.00	.316	L	421	422	423	424	425	426	427
			R	521	522	523	524	525	526	527
690	20.70	.60	L	431	432	433	434	435	436	437
			R	531	532	533	534	535	536	537
765	22.95	.84	L	441	442	443	444	445	446	447
			R	541	542	543	544	545	546	547
792	23.76	.925	L	451	452	453	454	455	456	457
			R	551	552	553	554	555	556	557

b. Orbiter Base, Body Flap Lower Surface, and Vertical Tail

Table IV. Continued.

ORBITER WING

ORBITER S.P. - Y		X/C - THEORETICAL WING CHORD																						
FULL MODEL	Y	- .49	- .35	- .25	- .15	- .033	0.0	.05	.15	.25	.40	.55	.60	.65	.70	.725	.75	.775	.80	.85	.90	.95		
145	.299	U	201	202	202	203	204	205	205	206	207	208	209	210	211	212	212	212	212	212	212	212	212	212
170	.364	U	301	302	302	303	304	305	305	306	307	308	309	310	311	312	312	312	312	312	312	312	312	312
200	.427	U																						
230	.534	U																						
245	.673	U																						
305	.730	U																						
415	.857	U																						

U - UPPER SURFACE L - LOWER SURFACE

Y	X/C LOCAL WING CHORD
.299	0, .094, .225, .362, .497, .700, .834, .865, .900, .965
.364	0, .095, .246
.427	0, .083, .177, .402, .555, .760, .866, .857, .905, .953
.534	SAME AS THEORETICAL CHORD
.673	
.730	
.857	

c. Orbiter Wing  
Table IV. Continued.

EXTERNAL TANK

TANK STA ~ XT		θ ~ DEG											
FULL	MODEL	XT/IFT	0	30	60	90	120	135	150	165	180	270	
316.	9.48	0	610			614					619	620	
317.T	9.53	.001	611			624	625		627		629		
400	12.00	.045	621	622	623	634	635		637	638	639		
520	15.60	.110	631	632	633	644	645		647	648	649		
640	19.20	.174	641	642	643	654	655		657	658	659		
670	20.10	.191	651	652	653	664	665		667	668	669		
710	21.30	.212	661	662	663	674	675	676	677	678	679		
750	22.50	.234	671	672	673	684	685		687	688	689		
850	25.50	.287	681	682	683	694	695	696	697	698	699		
950	28.50	.341	691	692	693	704	705		707	708	709		
1050	31.50	.395	701	702	703	714	715	716	717		719		
1150	34.50	.449	711	712	713	724	725		727	728	729		
1250	37.50	.503	721	722	723	734	735	736	737		739		
1350	40.50	.557	731	732	733	744	745		747	748	749		
1500	45.00	.637	741	742	743	754	755	756	757		759		
1700	51.00	.745	751	752	753	764	765	766	767	768			
1900	57.00	.853	761	762	763	774	775	776	777	778			
2040	61.20	.929	771	772	773	774	775	776	777				
STING CAVITY			601									604	
BASE			602			603							

d. External Tank  
Table IV. Continued.

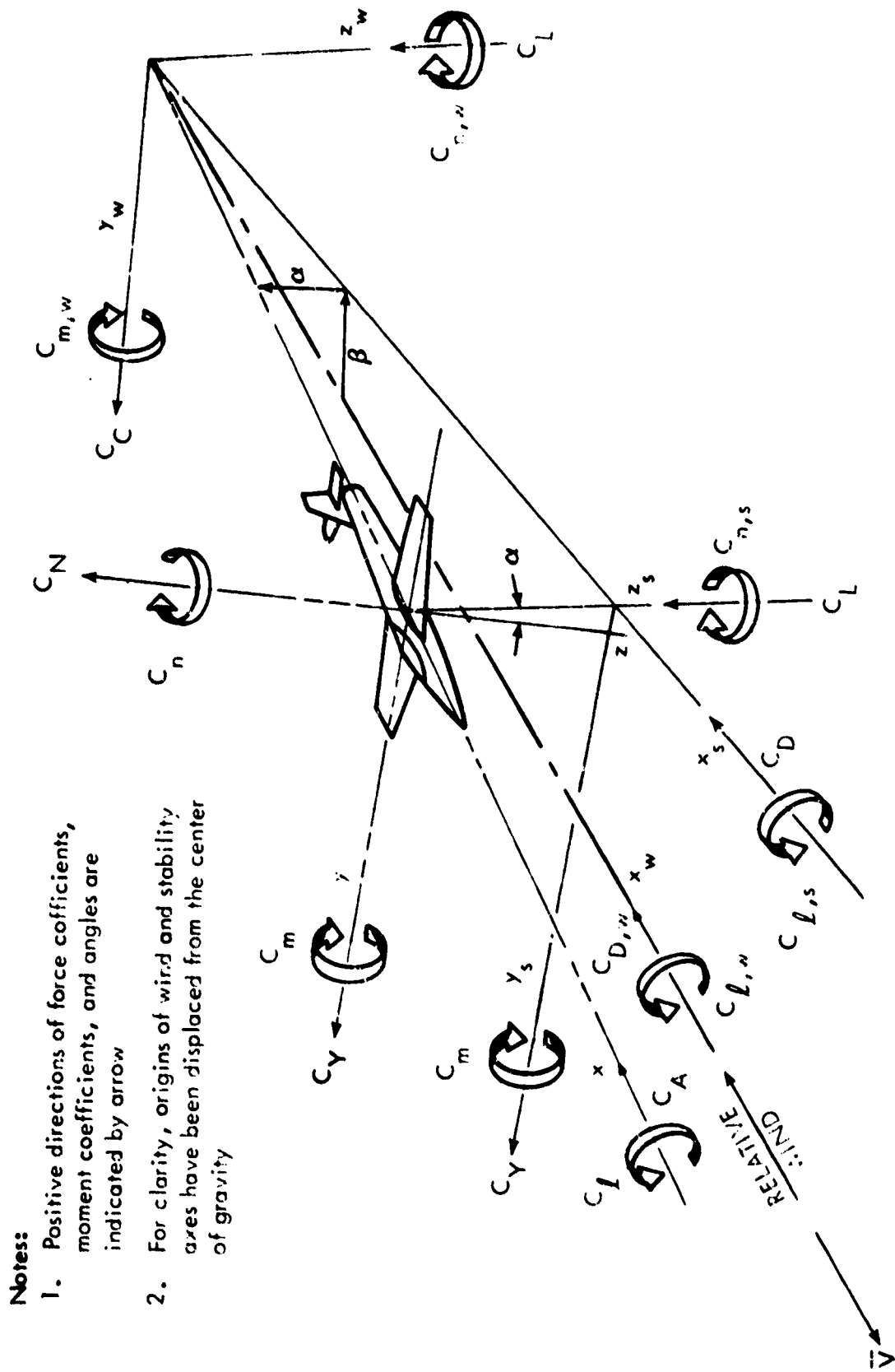


LEFT SRM

SRM STATION ~ XS			$\theta$ ~ DEG							
FULL	MODEL	XS/LS	0	45	90	135	180	225	270	315
200	6.00	0	810							
260	7.80	.034	811	812	813	814	815	816	817	818
370	11.10	.097	821	822	823	824	825	826	827	828
400	12.00	.114	831	832	833	834	835	836	837	838
450	13.50	.142	841	842	843	844	845	846	847	848
550	16.50	.199	851	852	853	854	855	856	857	858
700	21.00	.284	861		863		865	866	867	868
850	25.50	.370	871		873		875		877	
1050	31.50	.484	881		883		885			
1250	37.50	.597	891		893		895			
1450	43.50	.711	901		903		905		907	
1650	49.50	.825	911		913		915		917	
1750	52.50	.882	921	922	923	924	925	926	927	928
1790	53.70	.904	931	932	933	934	935	936	937	938
1850	55.50	.939	941	942	943	944	945	946	947	948
1900	57.00	.967	951	952	953	954	955	956	957	958
NOZZLE BASE			801							
SKIRT BASE			802		803		804		805	

e. Left SRM

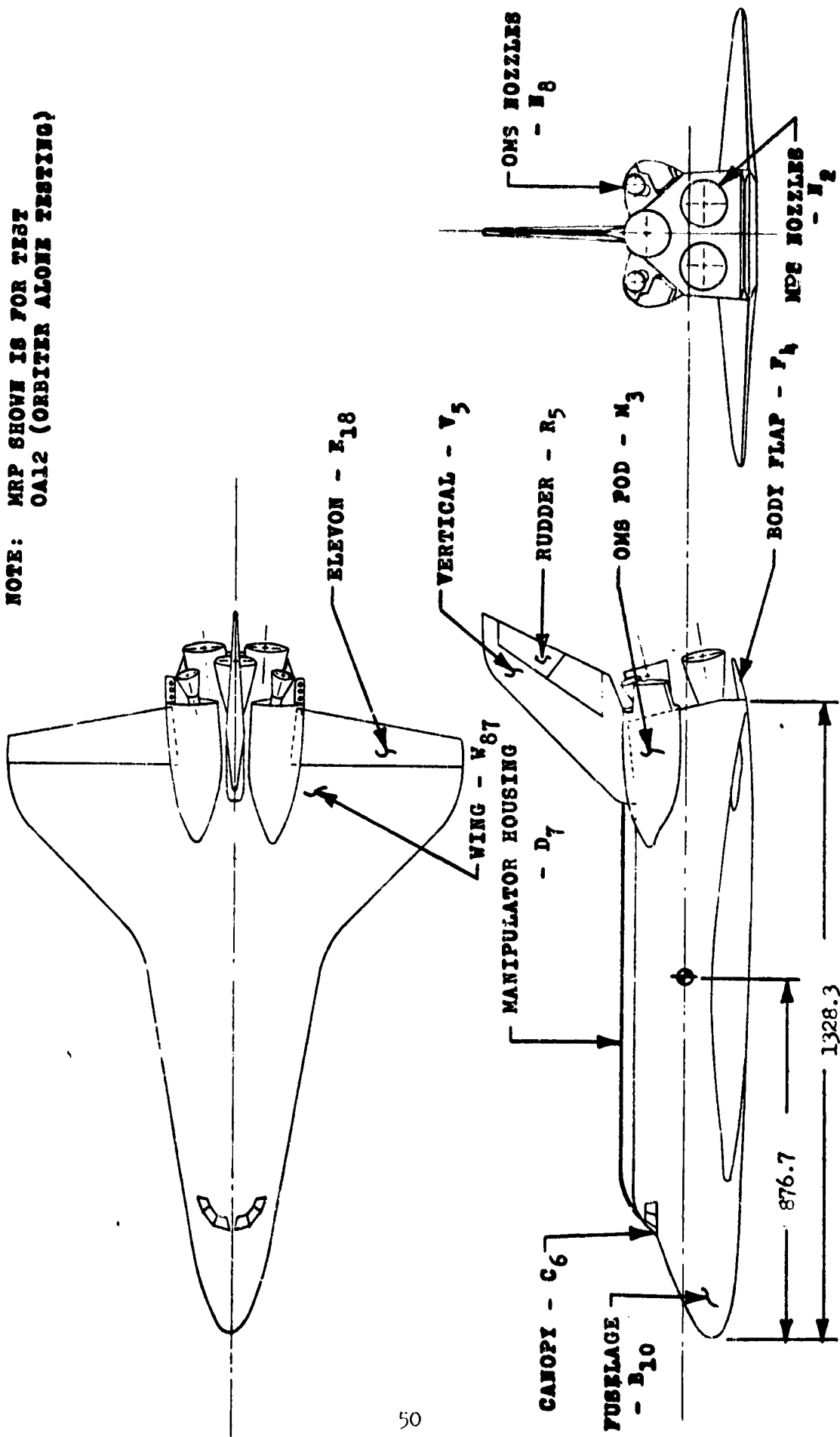
Table IV. Concluded.



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

Figure 1. - Axis Systems.

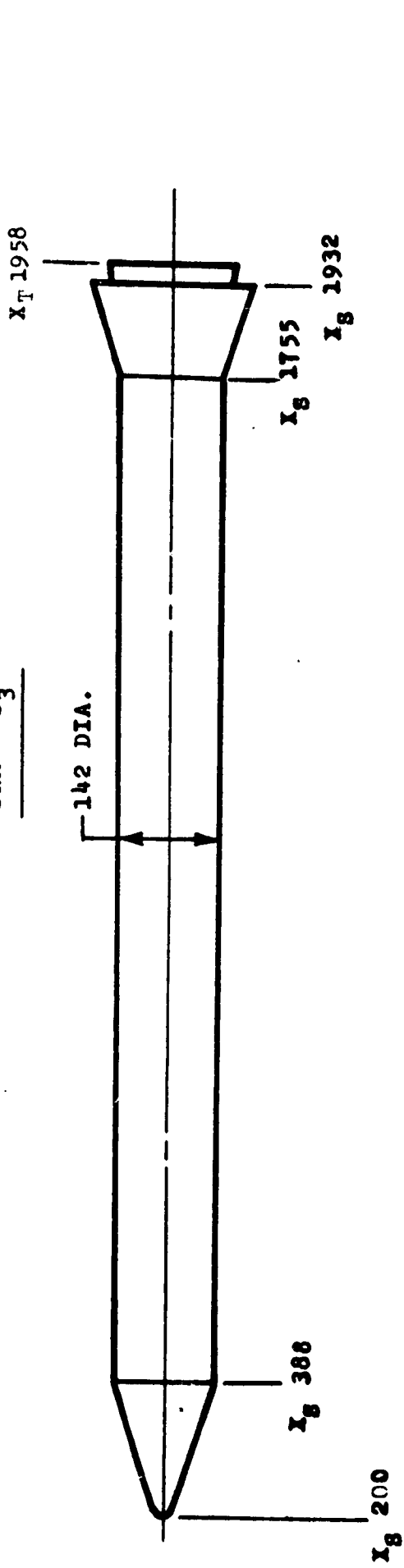
**NOTE: MRP SHOWN IS FOR TEST  
OAL2 (ORBITER ALONE TESTING)**



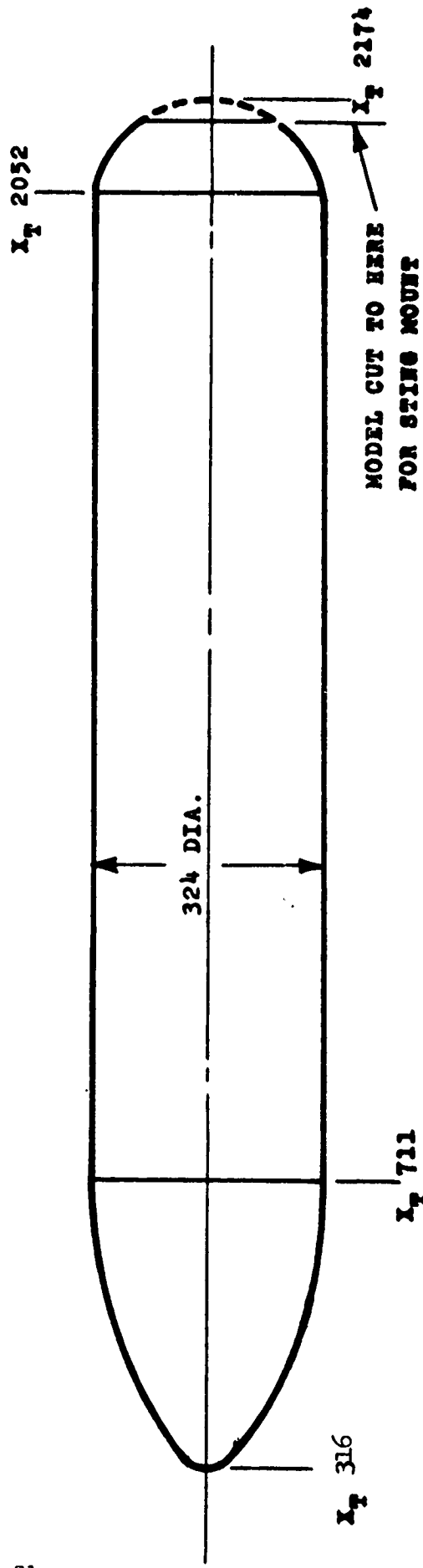
a. Orbiter, O<sub>2A</sub>

Figure 2. - Model Sketches.

SRM S<sub>3</sub>



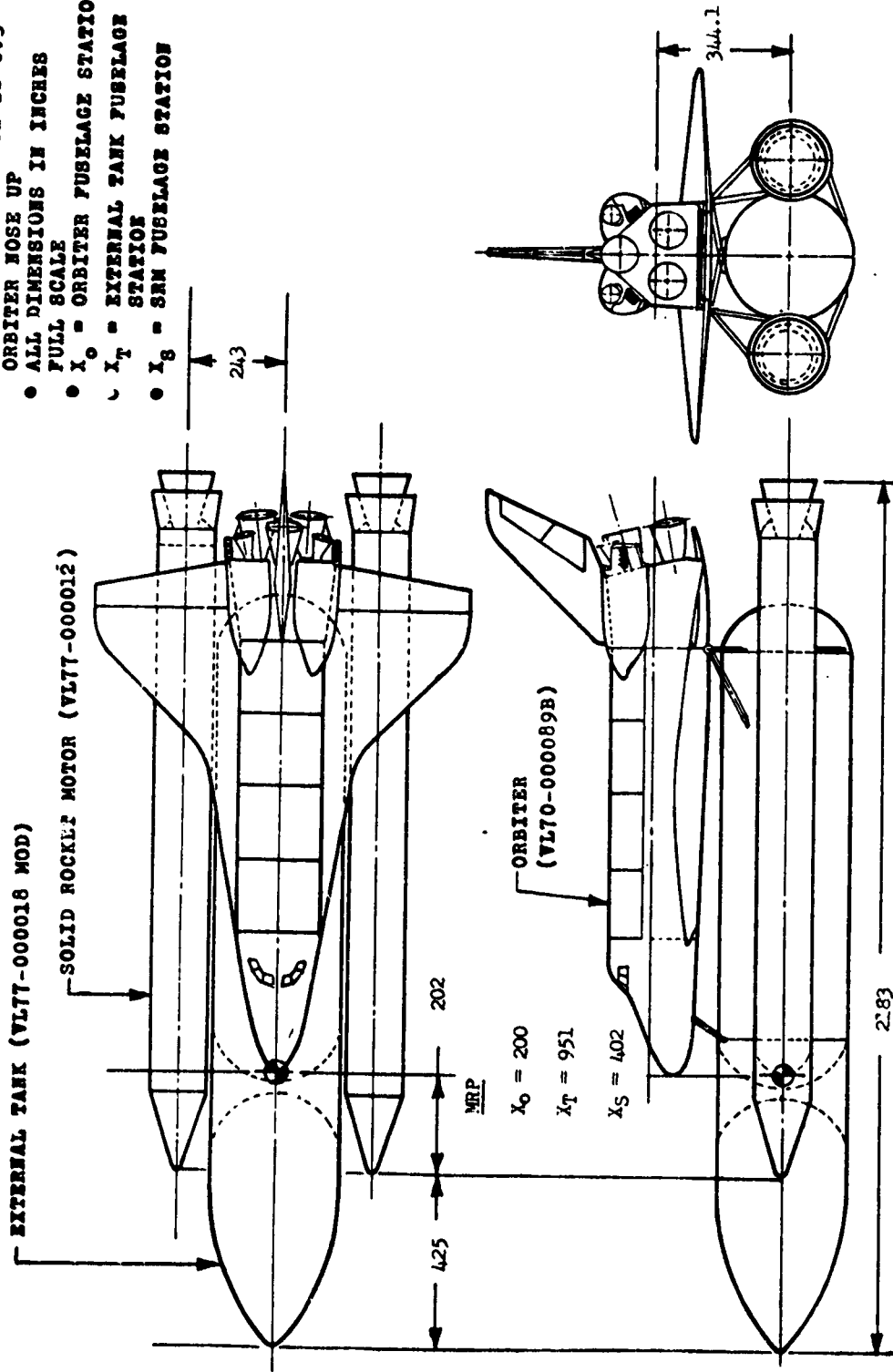
EXTERNAL TANK T<sub>9</sub>



b. SRM<sub>1</sub>, S<sub>3</sub>, and External Tank, T<sub>9</sub>

Figure 2. - Continued.

- NOTES:**
- ORBITER INCIDENCE ANGLE RELATIVE TO TANK CL IS  $0.5^\circ$
  - ORBITER NOSE UP
  - ALL DIMENSIONS IN INCHES
  - FULL SCALE
  - $X_0$  = ORBITER FUSELAGE STATION
  - $X_T$  = EXTERNAL TANK FUSELAGE STATION
  - $X_S$  = SRM FUSELAGE STATION



c. Integrated Vehicle

Figure 2. - Concluded.



10. (1940) (1940) A photograph of a person in a dark, confined space, possibly a tunnel or a narrow hallway. The person is wearing a dark jacket and a hat, and is holding a long, light-colored object, possibly a tool or a piece of equipment, horizontally across their chest. The background is dark and textured, suggesting a rough or metallic surface. The lighting is dramatic, highlighting the person and the object against the dark background.



3. Isolated Gridder (Entry Configuration) Mounted in the 480 x 72 Ft. Tunnel

Figure 3. - Continued.

TABULATED PRESSURE DATA





## AMES 87-707 IAS OEA + S3 + T9 ORBITER FUSELAGE (RBNBU1)

MACH ( 1 ) = 2.496 ALPHAT ( 2 ) = -6.070

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.000	1.0430	.9820	.3720	.0040	.0220	.2160		.0910			.0580	.1790	.3050	.0530	-.1480
20.000			.4030	-.0170	.0230	.2220		.1080			.0740	.0510	.0710	.0350	.0410
40.000			.4800	.0190	.0160	.1620		.1470			.1130	.0510	.0710	.0350	.0410
55.000			.5110	.0250	.0270	.1570		.1610			.2470	.0770	.0410	.0100	.0210
70.000			.5260	.0780	.0440	.1120		.1350			.2630	.0770	.0410	.0100	.0210
90.000	1.1390		.5620	.1120	.0620	.1010		.1510			.3160	.0330	.0260	-.0480	.0110
120.000			.6230	.2130	.1770	.1610		.1970		.0480	.0740	-.0610	-.0490	.0100	.0480
142.000			.6360	.2660	.2860	.3490		.8140			.1410	-.0550	-.0420	-.0210	.0220
150.000							1.0590								
157.000								.6890							
162.000								.9280							
165.000															
169.000															
172.000															
180.000	1.0430	1.2770	.6150	.3220	.3290	.4360	1.1600	1.1990							

MACH ( 1 ) = 2.496 ALPHAT ( 3 ) = -4.030

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.000	1.5760	.6890	.3510	-.0020	.0130	.2090		.0860			.0730	.1630	.1010	.0310	-.0480
20.000			.3640	-.0070	.0130	.2020		.1055			.0710	.0460	.0560	.0170	.0170
40.000			.4610	.0130	.0110	.1930		.1510			.1070	.0460	.0560	.0170	.0170
55.000			.4970	.0480	.0170	.1410		.1110			.2160	.0640	-.0100	-.0170	-.0480
70.000			.4990	.0620	.0280	.1920		.1120			.2470	.0640	-.0100	-.0170	-.0480
90.000	1.1080		.5260	.0920	.0390	.1690		.1350			.0980	.0420	.0070	-.0190	-.0480
120.000			.5700	.1790	.1430	.1110		.1690		.0480	.0570	-.0730	-.0490	-.0110	-.0430



AWES 07-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RBN0511)

MACH ( 1 ) = 2.490 ALPHA( 4 ) = -2.144

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5144	.5175	.5188	.5339	.5612	.5355	.5956	.5581	.5732	.5950	.5259	.2711	.3244	.3953	.5124
PHI															
100.140	1.5150	1.1120	.4080	.2279	.2280	.3070		1.1270							
X/LB	.5975	.6028	.7300	.7089	.8283	.8048	.9282	.9639	1.1415	1.1392					
PHI															
110.140	-1.080	-1.018	-1.015	.1290	-1.010	-1.011	-1.146	-1.145							
120.140	-1.018	-1.015	-1.015	.1290	-1.010	-1.011	-1.146	-1.145							
130.140	-1.015	-1.015	-1.015	.1290	-1.010	-1.011	-1.146	-1.145							
140.140	-1.015	-1.015	-1.015	.1290	-1.010	-1.011	-1.146	-1.145							
150.140	-1.015	-1.015	-1.015	.1290	-1.010	-1.011	-1.146	-1.145							
160.140	-1.015	-1.015	-1.015	.1290	-1.010	-1.011	-1.146	-1.145							
170.140	-1.015	-1.015	-1.015	.1290	-1.010	-1.011	-1.146	-1.145							
180.140	-1.015	-1.015	-1.015	.1290	-1.010	-1.011	-1.146	-1.145							

MACH ( 1 ) = 2.490 ALPHA( 5 ) = .144

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5144	.5175	.5188	.5339	.5612	.5355	.5956	.5581	.5732	.5950	.5259	.2711	.3244	.3953	.5124
PHI															
110.140	1.4580	.8480	.3740	.6150	.5900	.1390		.1170							
120.140	.5940	.5150	.5310	.5310	.5910	.1280		.1280							
130.140	.4430	.5310	.5310	.5310	.5910	.2330		.2330							
140.140	.4610	.5450	.5390	.5940	.5940	.1270		.1270							
150.140	.4640	.5430	.5150	.5740	.5740	.1910		.1910							
160.140	1.1440	.4730	.5650	.5210	.5720	.1680		.1680							
170.140		.4870	.5260	.5950	.5910	.1510		.1510							
180.140		.4910	.5530	.5610	.2110	.2220		.2220							
190.140		.5990			.8250			.8250							
200.140		.7190													
210.140					.8870			.8870							
220.140	1.4580	1.0530	.4320	.1890	.1890	.2570		.2570							
X/LB	.5975	.6028	.7300	.7089	.8283	.8048	.9282	.9639	1.1415	1.1392					
PHI															
110.140	-1.1040	-1.040	-1.040	.1340	-1.040	-1.040	-1.1270	-1.1270							
120.140	-1.040	-1.040	-1.040	.1340	-1.040	-1.040	-1.1270	-1.1270							



AVES 07-707 1A9 OEA + S3 + T9 ORBITER FUSELAGE

(RB:9:11)

MACH ( 1 ) = 2.498      ALPHAT( 6 ) = 1.935

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB    .5073   .6626   .7301   .7069   .8203   .8048   .9262   .9639   1.1715   1.5392

PHI

185.144    -.1480    .1680    .1820    .1070    .5680    -.5190  
180.144    -.1480    -.1420

MACH ( 1 ) = 2.498      ALPHAT( 7 ) = 3.940

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB    .1444   .1475   .1188   .1039   .1412   .1355   .1546   .1981   .1732   .1958   .2259   .2711   .3244   .3953   .5124

PHI

.144    1.3480   .9310   .3970   .1310   .1690   -.1450   .1820  
20.144    .4290   .1270   .1220   .1220   .1220   .1940   .1940  
40.144    .4990   .1270   .1910   .1190   .1190   .2150   .2150  
55.144    .4990   .1250   .1250   .1690   .1690   .1280   .1280  
70.144    .4390   .1480   .1170   .1790   .1790   .1180   .1180  
90.144    .4340   .1480   .1120   .1660   .1660   .1810   .1810  
120.144    .4180   .1480   .1030   .1790   .1790   .1530   .1530  
142.144    .3990   .1620   .1680   .1390   .1390   .1620   .1620  
157.144    .7660  
182.144    .5740  
185.144    .5890  
189.144    .7690  
172.144    .7910  
180.144    1.3480   .9240   .3410   .1160   .1210   .1730   .1730

X/LB    .5073   .6626   .7301   .7069   .8203   .8048   .9262   .9639   1.1715   1.5392

PHI

.144    -.1150    .1490    .1490    .1490    .1490    .1490    .1490    .1490  
40.144    -.1150    -.1150    .1490    .1490    .1490    .1490    .1490    .1490  
70.144    -.1150    -.1150    .1490    .1490    .1490    .1490    .1490    .1490  
90.144    -.1480    .1790    .1220    .1240    .1350    .1350    .1350    .1350  
115.144    .1490    .1490    .1490    .1490    .1490    .1490    .1490    .1490  
110.144    .1490    .1490    .1490    .1490    .1490    .1490    .1490    .1490  
120.144    .1490    .1490    .1490    .1490    .1490    .1490    .1490    .1490  
135.144    .1490    .1490    .1490    .1490    .1490    .1490    .1490    .1490  
150.144    .1490    .1490    .1490    .1490    .1490    .1490    .1490    .1490  
165.144    .1490    .1490    .1490    .1490    .1490    .1490    .1490    .1490  
180.144    .1490    .1490    .1490    .1490    .1490    .1490    .1490    .1490

MES 87-707 1A9 OEA + 33 + T9 ORBITER FUSELAGE

(RMBU1)

MACH ( 1 ) = 2.498      ALPHAT ( 8 ) = 5.98U

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.144U	.14U75	.U188	.U939	.U612	.1355	.15U6	.1581	.1732	.1938	.2259	.2711	.324U	.3953	.512U
PHI															
.14U	1.378U	.948U	.482U	.113U	.U48U	-.U3U4		.221U	.198U	.144U	.U82U	.U48U	-.U48U	-.1U8U	-.1U8U
2U.14U		.483U	.124U	.U71U	-.U34U		.165U	.165U	.U31U	.U16U	.U7U7U	-.U68U	-.U19U	-.U19U	
4U.14U			.518U	.1U8U	-.U41U		.129U	.129U	.U88U	-.U8U	-.U71U	-.U83U	-.U93U	-.U93U	
55.14U				.481U	.U61U	.U64U	.123U	.123U	.123U	-.U46U	-.U67U	-.U92U	-.1U4U	-.1U4U	
7U.14U					.434U	.U45U	.U14U	.U68U	.U99U	-.U46U	-.U59U	-.U98U	-.1U2U	-.1U2U	
9U.14U					.387U	.U66U	.U42U	.U71U	.147U	-.U39U	-.U46U	-.U98U	-.1U2U	-.1U2U	
12U.14U								.472U		-.U88U	-.115U	-.U1U3U	-.U78U	-.U78U	
142.14U									.637U						
15U.14U															
157.14U															
162.14U															
165.14U															
169.14U															
172.14U															
18U.14U															
X/LB	.5875	.6826	.738U	.7868	.8283	.8848	.9282	.9639	1.1415	1.1392					
PHI															
.U00U	-.U18U	.U2U	.U51U	.U12U	-.U42U	-.U89U		-.U62U	-.U57U	-.U74U					
4U.14U	.U11U	.U2U	-.U1U	-.U69U	-.U89U	-.U94U									
7U.14U	-.U1U	-.U1U	-.U2U	-.U45U	-.U6U	-.U73U									
9U.14U	-.U88U	-.U88U	-.U67U	-.U44U	-.U57U	-.U77U									
1U9.14U															
11U.14U	-.U82U	-.U82U	-.U64U	-.U57U	-.U67U	-.U67U									
12U.14U															
135.14U															
15U.14U															
165.14U															
18U.14U															

MACH ( 1 ) = 2.498      ALPHAT ( 9 ) = 8.UDU

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.U1U	.U1U75	.U188	.U939	.U6U2	.1355	.15U6	.1581	.1732	.1938	.2259	.2711	.324U	.3953	.512U
PHI															
.14U	1.387U	.993U	.531U	.152U	-.U29U	.U48U		.2U9U	.169U	.114U	.U72U	.U48U	-.U61U	-.111U	-.111U
2U.14U		.541U	.164U	-.U43U	.U31U		.135U	.135U	.U3U	.U16U	.U7U7U	-.U72U	-.U42U	-.U42U	
4U.14U			.587U	.149U	.U3U	.U33U	.124U	.124U	.U66U	-.U66U	-.U97U	-.U97U	-.U99U	-.U99U	
55.14U				.497U	.U37U	.U55U	.127U	.127U	.127U	-.U62U	-.U82U	-.U82U	-.1U4U	-.1U4U	
7U.14U					.497U	.U37U	.U55U	.127U	.127U	-.U62U	-.U82U	-.U82U	-.1U4U	-.1U4U	
9U.14U					.432U	.U48U	.U16U	.U69U	.U58U	-.U64U	-.U92U	-.U92U	-.1U8U	-.1U8U	
12U.14U					.344U	.U43U	.U28U	.U69U							

AMES 87-707 1A9 02A + S3 + T9 ORBITER FUSELAGE

(RBNB01)

MACH ( 1 ) = 2.498

ALPHAT( 9 ) = 0.010

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0602	.1036	.1501	.1732	.1938	.2259	.2711	.3200	.3933	.5120
PHI														
142.500														
150.500														
157.500														
162.500														
165.500														
169.500														
172.500														
180.500														
X/LB	1.3870	.7880	.2480	.0580	.0020	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
PHI														
142.500														
145.500														
150.500														
155.500														
160.500														
165.500														
170.500														
175.500														
180.500														
185.500														
190.500														
195.500														
200.500														

PHI

142.500  
145.500  
150.500  
155.500  
160.500  
165.500  
170.500  
175.500  
180.500  
185.500  
190.500  
195.500  
200.500

PHI

142.500  
145.500  
150.500  
155.500  
160.500  
165.500  
170.500  
175.500  
180.500  
185.500  
190.500  
195.500  
200.500

MACH ( 2 ) = 2.999

ALPHAT( 1 ) = -0.070

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0602	.1036	.1501	.1732	.1938	.2259	.2711	.3200	.3933	.5120
PHI														
20.500														
40.500														
60.500														
80.500														
100.500														
120.500														
140.500														
160.500														
180.500														
200.500														
X/LB	1.0000	.5000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
PHI														
20.500														
40.500														
60.500														
80.500														
100.500														
120.500														
140.500														
160.500														
180.500														
200.500														

AL









## AMES 87-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RMS:1)

MACH ( 2 ) = 2.999      ALPHAT( 9 ) = -.010

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0180	.0339	.0602	.1355	.1956	.1981	.1732	.1958	.2259	.2711	.3274	.3993	.5120
PHI	.0000	.0000	.0000	-.0150	-.0050	.0080	.0840	.0780	.1210	.1110	.0580	.1110	.0580	-.0140	
20.000	.0000	.0000	.0000	-.0200	-.0040	.0000	.1130	.0590	.1280	.0480	.0480	.0140	.0260		
40.000	.0000	.0000	.0000	-.0350	-.0040	.0050	.1480	.1280	.1280	.0590	.0590	.0110	.0290		
55.000	.0000	.0000	.0000	-.0450	-.0040	.0070	.1580	.1550	.1550	.0590	.0590	.0170	.0360		
70.000	.0000	.0000	.0000	-.0580	-.0040	.0050	.1580	.1440	.1440	.0590	.0590	.0167	.0350		
90.000	.0000	.0000	.0000	-.0680	-.0040	.0030	.1490	.1380	.1380	.0590	.0590	.0169	.0350		
120.000	.0000	.0000	.0000	-.0990	-.0040	.0190	.0870	.0870	.0870	.0590	.0590	.0161	.0310		
150.000	.0000	.0000	.0000	-.1090	-.0040	.0230	.0920	.0920	.0920	.0590	.0590	.0161	.0310		
165.000	.0000	.0000	.0000	-.1090	-.0040	.0230	.0920	.0920	.0920	.0590	.0590	.0161	.0310		
172.000	.0000	.0000	.0000	-.1090	-.0040	.0230	.0920	.0920	.0920	.0590	.0590	.0161	.0310		
180.000	.0000	.0000	.0000	-.1090	-.0040	.0230	.0920	.0920	.0920	.0590	.0590	.0161	.0310		
X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9252	.9639	1.0015	1.0392					

## PHI

.0000	-.0350														
40.000	-.0310	-.0270	.0440	-.0440	-.0320	-.0790	-.1280								
70.000	-.0670	-.0790	-.0810	-.0990	-.0690	-.0790	-.0570								
90.000	-.0540	-.0740	-.0530	-.0520	-.0480	-.0480	-.0390								
105.000			-.0120	-.0340	-.0430	-.0460	-.0360								
110.000															
120.000	-.0380	-.0470	.0420	.0890	-.0600	-.0740	-.0330								
130.000			.0340	.2440	-.0580	-.0740	-.0230								
150.000	-.0310	-.0300	.0730	.1750	-.0300	-.0470	.0290								
155.000	-.0270		.0610	.1720	.0980	.0630	.0310								
180.000	-.0210	-.0220	-.0180												

MACH ( 2 ) = 2.999      ALPHAT( 6 ) = 1.990

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0180	.0339	.0602	.1355	.1956	.1981	.1732	.1958	.2259	.2711	.3274	.3993	.5120
PHI	.0000	.0000	.0000	.0070	.0490	-.0280	.0910	.0890	.1240	.1180	.0490	.1180	.0490	-.0240	
20.000	.0000	.0000	.0000	.0230	-.0460	-.0220	.1030	.1100	.1260	.0460	.0460	.0180	.0340		
40.000	.0000	.0000	.0000	.0240	-.0460	.0540	.1030	.1230	.1230	.0460	.0460	.0180	.0340		
55.000	.0000	.0000	.0000	.0420	-.0410	.0540	.1030	.1030	.1030	.0460	.0460	.0180	.0340		
70.000	.0000	.0000	.0000	.0430	-.0280	.0540	.1030	.1030	.1030	.0460	.0460	.0180	.0340		
90.000	.0000	.0000	.0000	.0430	-.0280	.0540	.1030	.1030	.1030	.0460	.0460	.0180	.0340		
120.000	.0000	.0000	.0000	.0430	-.0280	.0540	.1030	.1030	.1030	.0460	.0460	.0180	.0340		

## AMES 07-707 IA9 ORA + S3 + T9 ORBITER FUSELAGE

(RDNBUS)

MACH ( 2 ) = 2.999 ALPHAT ( 6 ) = 1.930

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1444	.1475	.1488	.1539	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI							.7711			.1023					
142.1440				.4421	.1271	.1314	.1961								
151.1440									.5441						
157.1440							.6641								
162.1440															
165.1440							.6811								
169.1440															
172.1440								.8581							
181.1440	.0310	.0410	.0480	.3691	.1480	.1921		.9131							
X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.1115	1.1392					

PHI

.1440															
40.1440															
70.1440															
90.1440															
115.1440															
125.1440															
133.1440															
150.1440															
165.1440															
181.1440															

MACH ( 2 ) = 2.999 ALPHAT ( 7 ) = 3.980

## SECTION ( 3 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1444	.1475	.1488	.1539	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
142.1440				.0190	.0310	-.0340									
151.1440				.4280	.0330	-.0320									
157.1440				.4760	.0720	.1410									
162.1440				.4870	.0780	.1630									
165.1440				.4410	.1680	.1530									
169.1440				.4350	.1680	.1510									
172.1440				.4150	.1990	.1740									
181.1440	.3980	.1160	.1120	.1290			.6820								
191.1440															
162.1440															
165.1440															
169.1440															
172.1440															

.7560

AMES 87-73.7 IAS OZA + S3 + T9 ORBITER FUSELAGE

(FBWB:1)

MACH ( 2 ) = 2.999      ALPHA( 7 ) = 3.960

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
PHI														
180.144	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
X/LB	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
PHI														
40.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
70.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
90.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
110.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
120.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
135.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
150.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
165.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
180.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					

MACH ( 2 ) = 2.999      ALPHA( 8 ) = 5.990

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
PHI														
20.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
40.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
55.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
70.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
90.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
120.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
142.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
157.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
182.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
185.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
199.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
172.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
180.1440	.1440	.1673	.1808	.1939	.1982	.1956	.1581	.1732	.1938	.2239	.2711	.3200	.3550	.3120
X/LB	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
PHI														
40.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
70.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
90.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
110.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
120.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
135.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
150.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
165.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					
180.1687	.1687	.1826	.1960	.2089	.2203	.2262	.2269	.2215	1.0392					

AMES 87-757 IA9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNB811)

MACH ( 2 ) = 2.999 ALPHA( 8 ) = 5.994

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6826	.7389	.7869	.8283	.8848	.9282	.9639	1.0115	1.0592
PHI										
71.1440	-.1970	-.1170	-.1120	-.1070	-.1070	-.1070	-.10810	-.10740		
91.1440	-.1970	-.1970	-.1650	-.1550	-.1560	-.1610	-.1610	-.1580		
110.1440			-.1440	-.1420	-.1370	-.1330	-.1350	-.1350		
121.1440	-.1440	-.1420	.1490	.1290	.1380	-.1480	-.1480	-.1440		
135.1440			.1680	.1130	-.1070	-.1070	-.1030	-.1030		
150.1440	-.1640	-.1670	.1210	.1820	-.1590	-.1460	-.1420	-.1420		
165.1440	-.1580		-.1210	.1070	.1420	.1120	-.1270			
181.1440	-.1520	-.1570	-.1530							

MACH ( 2 ) = 2.999 ALPHA( 9 ) = 8.123

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1410	.1475	.1518	.1339	.1462	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI															
100.1440	.1000	.1000	.0000	.0480	.0140	-.1430			.1150	.1660	.1690	-.1660	-.1660	-.1660	-.1660
21.1440			.4960	.1070	.1030	-.1440			.1180	.1180	.1220	-.1620	-.1620	-.1620	-.1620
41.1440			.5460	.1000	.0990	-.1390			.1660	.1660	.1620	-.1620	-.1620	-.1620	-.1620
55.1440			.5410	.1010	.1610	.1290			.1440	.1440	.1440	-.1660	-.1660	-.1660	-.1660
70.1440			.4830	.1000	.1020	.1450			.1470	.1470	.1440	-.1660	-.1660	-.1660	-.1660
90.1440	.1440	.1170	.1580	.1240	.1510				.1470	.1470	.1460	-.1660	-.1660	-.1660	-.1660
120.1440			.3380	.1620	.1410	.1560			.1570	.1570	-.1660	-.1660	-.1660	-.1660	-.1660
142.1440			.3070	.1570	.1550	.1070			.3790	.3790	-.1660	-.1660	-.1660	-.1660	-.1660
150.1440							.5490								
157.1440									.4540						
162.1440									.4710						
165.1440															
169.1440															
172.1440							.6000								
181.1440	.0000	.0000	.2550	.1680	.1660	.1930			.6490	.6490	-.1660	-.1660	-.1660	-.1660	-.1660
X/LB	.5873	.6826	.7389	.7869	.8283	.8848	.9282	.9639	1.0115	1.0592					

PHI

144.1440	-.1660														
41.1440	-.1990	.1410	.1360	.1490	-.1490	-.1490	-.1490	-.1490	-.1490	-.1490	-.1490	-.1490	-.1490	-.1490	-.1490
70.1440	-.1010	-.1090	-.1020	-.1460	-.1640	-.1720	-.1770	-.1770							
90.1440	-.1090	-.1090	-.1460	-.1420	-.1530	-.1590	-.1590	-.1590							
110.1440			-.1070	-.1030	-.1240	-.1430	-.1560	-.1560							
121.1440	-.1690	-.1680	.1110	.1550	-.1230	-.1390	-.1450	-.1450							
135.1440			.1470	.1740	-.1620	-.1620	-.1620	-.1620							
150.1440	-.1070	-.1460	.1480	.1450	-.1490	-.1490	-.1490	-.1490							

AMES 07-757 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(H5H8H1)

MACH ( 2 ) = 2.990

ALPHAT( 9 ) = 0.1440

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .3075 .0028 .7300 .7869 .8283 .8848 .9262 .9639 1.0015 1.0392

P41

185.140 -0.7160 -0.1480 .0470 .0330 .0060 -0.0360  
180.140 -0.1690 -0.0790 -0.1620

MACH ( 3 ) = 3.342 ALPHAT( 1 ) = -0.1080

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .1440 .1675 .5100 .6039 .1462 .1355 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120

P41

.1440 .1440 .1440 .1090 .1010 .1010 .1940  
20.140 .4040 .1200 .1200 .1200 .1200 .1200 .1200 .1200 .1200 .1200 .1200 .1200 .1200 .1200  
40.140 .5930 .0740 .1210 .1210 .1210 .1210 .1210 .1210 .1210 .1210 .1210 .1210 .1210 .1210  
55.140 .5760 .1170 .1740 .1740 .1740 .1740 .1740 .1740 .1740 .1740 .1740 .1740 .1740 .1740  
75.140 .5520 .1480 .1940 .1940 .1940 .1940 .1940 .1940 .1940 .1940 .1940 .1940 .1940 .1940  
90.140 .7130 .1970 .1190 .1140 .1140 .1140 .1140 .1140 .1140 .1140 .1140 .1140 .1140 .1140  
120.140 .7800 .3050 .2410 .2230 .2230 .2230 .2230 .2230 .2230 .2230 .2230 .2230 .2230 .2230  
150.140 .8270 .3620 .3430 .3840 .3840 .3840 .3840 .3840 .3840 .3840 .3840 .3840 .3840 .3840  
157.140 1.2040 1.2040 1.2040 1.2040 1.2040 1.2040 1.2040 1.2040 1.2040 1.2040 1.2040 1.2040 1.2040 1.2040  
182.140 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380  
189.140 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380  
172.140 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380  
180.140 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380 1.2380

X/LB .3075 .0028 .7300 .7869 .8283 .8848 .9262 .9639 1.0015 1.0392

P41

.1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120  
40.140 .1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120  
75.140 .1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120  
90.140 .1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120  
105.140 .1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120  
115.140 .1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120  
125.140 .1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120  
135.140 .1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120  
150.140 .1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120  
180.140 .1440 .1440 .1440 .1090 .1010 .1010 .1940 .1501 .1732 .1958 .2239 .2711 .3240 .3953 .5120









AMES 07-717 1A9 ORA + S2 + T9 ORBITER FUSELAGE

(08MBR11)

MACH (3) = 3.942      ALPHAT(5) = -.030

## SECTION (1) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.5026	.7300	.7060	.6203	.0040	.2662	.9639	1.0015	1.0000
PM1									
70.1000	-.1540	-.1400	-.1670	-.1490	-.1400	-.1520	-.1430		
90.1000	-.1430	-.1600	-.1500	-.1410	-.1270	-.1280	-.1220		
110.1000			-.1670	-.1220	-.1210	-.1290	-.1330		
120.1000			-.1310	-.1300	.1540	.1670	-.1210	-.1410	-.1330
130.1000				.2310	.2120	-.1210	-.1340	-.1190	
140.1000			-.1280	-.1330	.1480	.1340	-.1400	.1430	.1220
160.1000			-.1270	.1490	.1270	.1670	.1710	.1150	
180.1000			-.1310	-.1220	-.1130				

MACH (3) = 3.942      ALPHAT(6) = 1.950

## SECTION (2) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.5010	.7175	.5100	.5339	.1612	.1355	.1916	.1561	.1732	.1959	.2259	.2711	.3210	.3953	.5120
PM1															
100.1000	.1410	.1410	.1410	.1400	.1420	-.1100			.1140	.1590	.1610	.1660	.1660	.1610	
200.1000	.4680	.5900	.5900	.5900	.5900	-.1140			-.1430	.1550	.1560	.1620	-.1420	-.1480	
300.1000	.5120	.5930	.5930	.5930	.5250				-.1450	.1350	.1350	.1420	-.1420	-.1480	
400.1000	.5120	.6030	.6030	.6030	.4850				.1480	.1470	-.1410	.1480	-.1410	-.1410	
500.1000	.4810	.5930	.5930	.5930	.4880				.1390	.1420	-.1220	-.1370	-.1410	-.1380	
600.1000	.4830	.5970	.5970	.5970	.4590				.1370	.1320	-.1420	-.1420	-.1420	-.1420	
700.1000	.4740	.5350	.5350	.5350					.1420						
800.1000	.4610	.5170	.5170	.5170	.1620				.5340	-.1210	-.1450	-.1460	-.1460	-.1460	
900.1000	.4610	.5170	.5170	.5170					.7660						
1000.1000															
1100.1000															
1200.1000															
1300.1000															
1400.1000															
1500.1000															
1600.1000															
1700.1000															
1800.1000															
1900.1000															
2000.1000															
2100.1000															
2200.1000															
2300.1000															
2400.1000															
2500.1000															
2600.1000															
2700.1000															
2800.1000															
2900.1000															
3000.1000															

MACH (3) = 3.942      ALPHAT(6) = 1.950

## SECTION (3) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.5026	.7300	.7060	.6203	.0040	.2662	.9639	1.0015	1.0000
PM1									
70.1000	-.1540	-.1400	-.1670	-.1490	-.1400	-.1520	-.1430		
90.1000	-.1430	-.1600	-.1500	-.1410	-.1270	-.1280	-.1220		
110.1000			-.1670	-.1220	-.1210	-.1290	-.1330		
120.1000			-.1310	-.1300	.1540	.1670	-.1210	-.1410	-.1330
130.1000				.2310	.2120	-.1210	-.1340	-.1190	
140.1000			-.1280	-.1330	.1480	.1340	-.1400	.1430	.1220
160.1000			-.1270	.1490	.1270	.1670	.1710	.1150	
180.1000			-.1310	-.1220	-.1130				











## AMES 87-707 IA9 ORA + S3 + T9 ORBITER FUSELAGE

(RB2NB2)

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.28U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1916	.1581	.1732	.1950	.2259	.2711	.3200	.3953	.512U
PHI															
.00U	1.712U	.901U	.473U	.035U	.116U	.247U	.163U				.115U	.099U	.051U	.026U	.047U
2U.04U			.532U	.069U	.122U	.277U	.221U				.115U	.086U	.048U	.027U	.041U
4U.04U			.651U	.151U	.146U	.193U	.261U				.132U	.106U			.111U
55.04U			.711U	.213U	.175U	.265U	.449U				.357U				
7U.04U			.755U	.221U	.189U	.278U	.336U				.422U	.165U	.061U	.062U	.116U
9U.04U		1.303U	.799U	.273U	.205U	.268U	.364U				.412U	.161U	.081U	.071U	.083U
12U.04U			.835U	.367U	.328U	.367U	.465U			.172U	.238U	.169U	.112U	.075U	.065U
142.04U															
15U.04U			.817U	.368U	.399U	.495U	1.164U				.099U	.035U	.052U	.077U	.063U
157.04U							1.269U								
162.04U							1.166U								
165.04U															
169.04U															
172.04U															
18U.04U	1.752U	1.335U	.663U	.375U	.375U	.553U	1.278U								
X/LB	.5073	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.17U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1916	.1581	.1732	.1950	.2259	.2711	.3200	.3953	.512U
PHI															
.00U	1.710U	.999U	.424U	.015U	.017U	.211U	.108U				.115U	.143U	.064U	.095U	.033U
2U.04U			.473U	.043U	.091U	.208U	.215U				.121U	.079U	.046U	.025U	.098U
4U.04U			.591U	.112U	.079U	.122U	.262U				.120U	.079U			.106U
55.04U			.646U	.151U	.136U	.221U	.338U				.322U				
7U.04U			.688U	.149U	.143U	.222U	.369U				.369U	.134U	.032U	.066U	.081U
9U.04U		1.321U	.732U	.225U	.158U	.226U	.268U				.251U	.135U	.062U	.043U	.058U
12U.04U			.783U	.328U	.288U	.311U	.431U			.179U	.238U	.169U	.061U	.061U	.055U

AMES 87-707 1A9 CCA + S3 + T9 ORBITER FUSELAGE

(RBNB:2)

MACH ( 1 ) = 2.496 BETAT ( 3 ) = -4.170

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1444	.1475	.1488	.1539	.1612	.1355	.1946	.1501	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI															
142.1440															
151.1440				.7880	.3530	.3790	.5010		1.1410	.1270	.1640	.1430	.1190	.1580	.1610
157.1440							1.2160		1.1260						
162.1440									1.0260						
165.1440									.9960						
169.1440															
172.1440							1.2370								
180.1440	1.7100	1.3490	.6630	.3730	.3800	.5810		1.2760							
X/LB	.5975	.6826	.7380	.7869	.8283	.8848	.9282	.9639	1.1415	1.1892					

X/LB	.0350	.0690	.0790	.1170	.1490	-.1290	-.1170	.1470	.1470	.1470	.1460	.1370	.1480	.1480	.1480
PHI															
40.0000															
70.0000															
90.0000															
105.0000															
110.0000															
120.0000															
135.0000															
150.0000															
165.0000															
180.0000															

MACH ( 1 ) = 2.496 BETAT ( 4 ) = -2.060

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.1339	.1612	.1355	.1506	.1561	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
20.0000															
40.0000															
55.0000															
70.0000															
90.0000															
120.0000															
142.1440	1.7190	.9290	.3690	-.1440	.1220	.1980		.1960	.1960	.1958	.1430	.1570	.1220	.1830	.1390
20.0000															
40.0000															
55.0000															
70.0000															
90.0000															
120.0000															
142.1440															
150.0000															
157.1440															
162.1440															
165.0000															
169.1440															
172.1440															

1.2610

(RDNB02)

AMES 87-717 IA9 OZA + S3 + T9 ORBITER FUSELAGE

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.168

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0420	.12175	.1308	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
180.144	1.7191	1.3991	.6681	.3751	.3791	.5111	1.2814								
X/LB	.5973	.6626	.7360	.7869	.8283	.8848	.9262	.9639	1.1415	1.0392					

PHI	.1431	.1512	.1591	.1641	.1719	.1791	.1851	.1911	.1971	.2031	.2091	.2151	.2211	.2271	.2331
PHI															
40.144	.0321	.0331	.0341	.0351	.0361	.0371	.0381	.0391	.0401	.0411	.0421	.0431	.0441	.0451	.0461
70.144	.0511	.0521	.0531	.0541	.0551	.0561	.0571	.0581	.0591	.0601	.0611	.0621	.0631	.0641	.0651
90.144	.0701	.0711	.0721	.0731	.0741	.0751	.0761	.0771	.0781	.0791	.0801	.0811	.0821	.0831	.0841
110.144	.0891	.0901	.0911	.0921	.0931	.0941	.0951	.0961	.0971	.0981	.0991	.1001	.1011	.1021	.1031
120.144	.1041	.1051	.1061	.1071	.1081	.1091	.1101	.1111	.1121	.1131	.1141	.1151	.1161	.1171	.1181
130.144	.1191	.1201	.1211	.1221	.1231	.1241	.1251	.1261	.1271	.1281	.1291	.1301	.1311	.1321	.1331
140.144	.1341	.1351	.1361	.1371	.1381	.1391	.1401	.1411	.1421	.1431	.1441	.1451	.1461	.1471	.1481
150.144	.1491	.1501	.1511	.1521	.1531	.1541	.1551	.1561	.1571	.1581	.1591	.1601	.1611	.1621	.1631
160.144	.1641	.1651	.1661	.1671	.1681	.1691	.1701	.1711	.1721	.1731	.1741	.1751	.1761	.1771	.1781
180.144	.1791	.1801	.1811	.1821	.1831	.1841	.1851	.1861	.1871	.1881	.1891	.1901	.1911	.1921	.1931

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.181

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0420	.12175	.1308	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
180.144	1.7170	1.3620	.6640	.3710	.3891	.4951	1.2760								
X/LB	.5973	.6626	.7360	.7869	.8283	.8848	.9262	.9639	1.1415	1.0392					

PHI	.1431	.1512	.1591	.1641	.1719	.1791	.1851	.1911	.1971	.2031	.2091	.2151	.2211	.2271	.2331
PHI															
40.144	.0321	.0331	.0341	.0351	.0361	.0371	.0381	.0391	.0401	.0411	.0421	.0431	.0441	.0451	.0461
70.144	.0511	.0521	.0531	.0541	.0551	.0561	.0571	.0581	.0591	.0601	.0611	.0621	.0631	.0641	.0651
90.144	.0701	.0711	.0721	.0731	.0741	.0751	.0761	.0771	.0781	.0791	.0801	.0811	.0821	.0831	.0841
110.144	.0891	.0901	.0911	.0921	.0931	.0941	.0951	.0961	.0971	.0981	.0991	.1001	.1011	.1021	.1031
120.144	.1041	.1051	.1061	.1071	.1081	.1091	.1101	.1111	.1121	.1131	.1141	.1151	.1161	.1171	.1181
130.144	.1191	.1201	.1211	.1221	.1231	.1241	.1251	.1261	.1271	.1281	.1291	.1301	.1311	.1321	.1331
140.144	.1341	.1351	.1361	.1371	.1381	.1391	.1401	.1411	.1421	.1431	.1441	.1451	.1461	.1471	.1481
150.144	.1491	.1501	.1511	.1521	.1531	.1541	.1551	.1561	.1571	.1581	.1591	.1601	.1611	.1621	.1631
160.144	.1641	.1651	.1661	.1671	.1681	.1691	.1701	.1711	.1721	.1731	.1741	.1751	.1761	.1771	.1781
180.144	.1791	.1801	.1811	.1821	.1831	.1841	.1851	.1861	.1871	.1881	.1891	.1901	.1911	.1921	.1931

PHI	.1431	.1512	.1591	.1641	.1719	.1791	.1851	.1911	.1971	.2031	.2091	.2151	.2211	.2271	.2331
PHI															
40.144	.0321	.0331	.0341	.0351	.0361	.0371	.0381	.0391	.0401	.0411	.0421	.0431	.0441	.0451	.0461
70.144	.0511	.0521	.0531	.0541	.0551	.0561	.0571	.0581	.0591	.0601	.0611	.0621	.0631	.0641	.0651
90.144	.0701	.0711	.0721	.0731	.0741	.0751	.0761	.0771	.0781	.0791	.0801	.0811	.0821	.0831	.0841
110.144	.0891	.0901	.0911	.0921	.0931	.0941	.0951	.0961	.0971	.0981	.0991	.1001	.1011	.1021	.1031
120.144	.1041	.1051	.1061	.1071	.1081	.1091	.1101	.1111	.1121	.1131	.1141	.1151	.1161	.1171	.1181
130.144	.1191	.1201	.1211	.1221	.1231	.1241	.1251	.1261	.1271	.1281	.1291	.1301	.1311	.1321	.1331
140.144	.1341	.1351	.1361	.1371	.1381	.1391	.1401	.1411	.1421	.1431	.1441	.1451	.1461	.1471	.1481
150.144	.1491	.1501	.1511	.1521	.1531	.1541	.1551	.1561	.1571	.1581	.1591	.1601	.1611	.1621	.1631
160.144	.1641	.1651	.1661	.1671	.1681	.1691	.1701	.1711	.1721	.1731	.1741	.1751	.1761	.1771	.1781
180.144	.1791	.1801	.1811	.1821	.1831	.1841	.1851	.1861	.1871	.1881	.1891	.1901	.1911	.1921	.1931



ANES 07-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RDNB4.2)

MACH ( 1 ) = 2.490 BETAT ( 6 ) = 4.320

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5975	.6626	.7369	.7869	.8263	.8646	.9262	.9639	1.0415	1.0392
PHI										
165.140		-.0110	.1250	.5680	.2450	.1310	.0710			
180.140		.1440	.1490	.1460						

MACH ( 1 ) = 2.490 BETAT ( 7 ) = 6.460

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1516	.1561	.1752	.1958	.2259	.2711	.3244	.3933	.5120
PHI															
140	1.0000	.9650	.6450	.0310	.1650	.2390		.1430	.1110	.0990	.1430	.0190	.1460		
20.140		.4360	.1680	.1460	.2120		.3150	.1120	.1120	.0540	.1160	.1470	.0180	-.1470	
40.140		.4270	.1620	.1680	.1680		.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680
55.140		.6010	.0100	.1680	.1670		.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680
70.140		.3770	-.1460	.1420	.1410		.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680
90.140	.9660	.4050	.1620	-.1410	.1690		.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680
120.140		.5070	.1410	.1150	.1690		.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680
142.140		.6110	.2320	.2650	.3750		.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680	.1680
150.140							1.0210								
157.140							.8880								
165.140							.9790								
169.140															
172.140															
180.140	1.0000	1.3400	.6520	.3640	.3610	.5090		1.2510							

X/LB	.5975	.6626	.7369	.7869	.8263	.8646	.9262	.9639	1.0415	1.0392
PHI										
140	.1620									
40.140	-.1410	.0090	-.0740	-.0910	-.1470	-.1650		-.1710		-.1340
70.140	.1620	-.1460	-.1460	.1620	.1610	-.1480	-.1480	-.1480	-.1480	-.1480
90.140	.0350	.0310	.0510	.0390	.0190	-.0190	-.1620	-.1620	-.1620	-.1620
105.140			.0640	.0120	.0140	-.0340	-.1620	-.1620	-.1620	-.1620
110.140										
120.140	.0360	.0260	.2020	.0610	-.1090	-.1470	-.1470	-.1470	-.1470	-.1470
135.140			.7090	.4430	-.0390	-.0560	-.0390	-.0390	-.0390	-.0390
150.140	-.1420	-.0390	.1110	.3670	.1450	.1490	.1740	.1740	.1740	.1740
165.140	-.1610		.1110	.3960	.1360	.0910	.0340	.0340	.0340	.0340
180.140	-.0350	-.0330	.1610							

AMES 07-707 1A9 OEA + 83 + 79 ORBITER FUSELAGE

(RBND1/2)

MACH ( 1 ) = 2.498 BETAT ( 0 ) = 0.590

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0602	.1355	.1506	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI														
.000	1.0000	.9710	.9490	.9330	.9200	.9070	.8950	.8830	.8720	.8620	.8520	.8420	.8320	.8220
20.000	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680
40.000	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710
60.000	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540
70.000	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320
90.000	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350
120.000	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590
142.000														
150.000	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750
157.000														
182.000														
185.000														
189.000														
172.000														
180.000	1.0000	1.3370	.6470	.3570	.3780	.5410	1.1340	1.2330	1.0015	1.0392	1.0150	1.0150	1.0150	1.0150
.5075	.8626	.7590	.7869	.8283	.8648	.8962	.9262	.9639	1.0015	1.0392	1.0150	1.0150	1.0150	1.0150

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.560

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0602	.1355	.1506	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI														
.000	1.0000	.9710	.9490	.9330	.9200	.9070	.8950	.8830	.8720	.8620	.8520	.8420	.8320	.8220
20.000	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680	.3680
40.000	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710	.3710
60.000	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540	.3540
70.000	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320	.3320
90.000	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350	.3350
120.000	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590	.4590
142.000														
150.000	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750	.5750
157.000														
182.000														
185.000														
189.000														
172.000														
180.000	1.0000	1.3370	.6470	.3570	.3780	.5410	1.1340	1.2330	1.0015	1.0392	1.0150	1.0150	1.0150	1.0150
.5075	.8626	.7590	.7869	.8283	.8648	.8962	.9262	.9639	1.0015	1.0392	1.0150	1.0150	1.0150	1.0150







AMES 87-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNS42)

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.25U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5073	.6026	.7300	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
70.000	.0300	-.0480	-.0440	.0200	.0300	.0300	.0200	.0400		
90.000	.0400	-.0160	.0240	.0670	.0930	.0800	.0800	.0600		
110.000			.0300	.0400	.0190	.0700	.0570			
120.000				.0900	.0200	.0500	.0870			
135.000				.0470	.0280	.0170	.0400			
150.000			.0500	.0180	.0160	.0400	.0190			
165.000			.0480	.0100	.0300	.0200	.0380			
180.000			.0120	.0000						

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.10U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0309	.0602	.0355	.0306	.0191	.0732	.0198	.0200	.0271	.0300	.0393	.0120
PHI															
20.000	.0000	.0000	.0000	.0100	.0100	.0200			.0100	.0100	.0300	.0170	.0100	.0100	.0300
40.000			.0600	.0200	.0000	.0800			.0400	.0400	.0500	.0700	.0400	.0600	.0600
60.000			.0700	.0800	.0200	.0200			.0500	.0500	.0200	.0700	.0700	.0400	.0600
80.000			.0600	.0100	.0100	.0100			.0300	.0300	.0600	.0600	.0600	.0600	.0700
100.000			.0000	.0200	.0100	.0100			.0100	.0100	.0100	.0100	.0100	.0100	.0400
120.000			.0600	.0100	.0200	.0200			.0100	.0100	.0100	.0100	.0100	.0100	.0100
140.000			.0100	.0300	.0300	.0400			.0100	.0100	.0100	.0100	.0100	.0100	.0100
160.000			.0100	.0100	.0100	.0100			.0100	.0100	.0100	.0100	.0100	.0100	.0100
180.000			.0000	.0100	.0100	.0100			.0100	.0100	.0100	.0100	.0100	.0100	.0100
200.000			.0000	.0100	.0100	.0100			.0100	.0100	.0100	.0100	.0100	.0100	.0100

PHI

X/LB	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
40.000	.0400		.0100	.0600	-.0200	-.0300			-.0100						
70.000	.0100	-.0100	-.0100	.0100	.0100	.0100			.0200						
90.000	.0300	.0200	.0200	.0500	.0600	.0400			.0400						
110.000			.0100	.0700	.0700	.0400			.0400						
130.000	.0400	.0300	.0300	.0200	.0200	-.0200			.0300						
150.000			.0100	.0400	.0400	.0100			.0100						
170.000			.0100	.0100	.0100	.0100			.0100						
190.000	.0400	.0300	.0300	.0100	.0100	.0200			.0100						

AMES 87-757 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RBNB1:2)

MACH ( 2 ) = 2.999      BETAT ( 4 ) = -2.114

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB    .5973   .6826   .7386   .7869   .8283   .8848   .9282   .9639   1.0215   1.0392

PHI	.0400	.1720	.3110	.2230	.2210	.1210
189.000						
189.100	.0170	.0170	.0250			

MACH ( 2 ) = 2.999      BETAT ( 5 ) = 2.230

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI	.0000	.0000	.0000	.0150	.0260	.1670		.1170	.1170	.0330	.0310	.1414	.1114	.1150	.1410
20.000		.4290	.0120	.0190	.1110			.1160	.0310	.0630	.0940	.1084	.1100	.0450	.0550
43.000		.4910	.0300	.0160	.1830			.0780	.1250	.1950	.1940	.1440	.1410	.0330	.0340
55.000		.5040	.0800	.0300	.0740			.0720	.1950	.1620	.1620	.1460	.1460	.0330	.0270
76.000		.5300	.0810	.0450	.1650			.1140	.1620	.1620	.1620	.1460	.1460	.0330	.0270
90.000		.3760	.1220	.0690	.0660			.1770	.1620	.1620	.1620	.1460	.1460	.0330	.0270
124.000		.6620	.2340	.1910	.1860			.8630	.1620	.1620	.1620	.1460	.1460	.0330	.0270
142.000		.7280	.3100	.310	.3680		1.2520	.8630	.1620	.1620	.1620	.1460	.1460	.0330	.0270
150.000								1.1810	.1620	.1620	.1620	.1460	.1460	.0330	.0270
157.000								1.1340	.1620	.1620	.1620	.1460	.1460	.0330	.0270
162.000								1.1340	.1620	.1620	.1620	.1460	.1460	.0330	.0270
169.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
172.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
180.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
189.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
190.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
191.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
192.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
193.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
194.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
195.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
196.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
197.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
198.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
199.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270
200.000								1.4750	.1620	.1620	.1620	.1460	.1460	.0330	.0270

X/LB	.5973	.6826	.7386	.7869	.8283	.8848	.9282	.9639	1.0215	1.0392
PHI	.0240	.0360	.0480	.0490	.0630	.0720		-.1190	-.1070	-.1290
40.000		.0120	-.0160	.0110	.0250	.0200		.0020		
70.000		.0330	.0130	.0490	.0370	.0140		.0110		
90.000		.0370	.0310	.0900	.0360	.0130		.0270		
120.000		.0370	.0310	.1720	.1460	-.0310		.0110		
135.000		.0120	.0330	.0170	.0320	.0140		.0390		
150.000		.0120	.0330	.0210	.0470	.0390		.0290		
165.000		-.0040	.0640	.0120	.0260	.1790		.1140		
180.000		.0190	.0240	.0220						











DATE 17 SEP 73 TABULATED PRESSURE DATA - 1A9C

AMES 67-707 1A9 OSA + S3 + T9 ORBITER FUSELAGE (RDMB-2)

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.141

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1956	.1901	.1732	.1956	.2259	.2711	.3214	.3953	.5121
PHI															
.000	.0000	.0000	.0000	.0330	.0120	.1630			.1441		.1554	.1669	.1370	.1610	.1830
20.144	.0000	.0000	.0000	.0380	.0080	.1140			.1830		.1668				
40.144	.0000	.0000	.0000	.0760	.0000	.1410			.1160		.1230	.1355	.1468	.1669	.1830
55.144	.0000	.0000	.0000	.0990	.0000	.1120			.1370		.1510	.1668	.1668	.1770	.1740
70.144	.0000	.0000	.0000	.1170	.0000	.1170			.1210		.1310	.1420	.1420	.1530	.1610
90.144	.0000	.0000	.0000	.1340	.0000	.1490			.1490		.1640	.1621	.1610	.1460	.1310
120.144	.0000	.0000	.0000	.1540	.0000	.2650			.3420		.1830				
142.144	.0000	.0000	.0000	.1670	.0000	.4190			1.0390		.1530	.1620	.1410	.1630	.1140
150.144	.0000	.0000	.0000	.1760	.0000	.4470			1.3240		.1620	.1400	.1620	.1410	.1190
157.144	.0000	.0000	.0000	.1830	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
162.144	.0000	.0000	.0000	.1890	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
165.144	.0000	.0000	.0000	.1940	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
169.144	.0000	.0000	.0000	.1990	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
172.144	.0000	.0000	.0000	.2040	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
180.144	.0000	.0000	.0000	.2090	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1956	.1901	.1732	.1956	.2259	.2711	.3214	.3953	.5121
PHI															
.000	.0000	.0000	.0000	.0330	.0120	.1630			.1441		.1554	.1669	.1370	.1610	.1830
20.144	.0000	.0000	.0000	.0380	.0080	.1140			.1830		.1668				
40.144	.0000	.0000	.0000	.0760	.0000	.1410			.1160		.1230	.1355	.1468	.1669	.1830
55.144	.0000	.0000	.0000	.0990	.0000	.1120			.1370		.1510	.1668	.1668	.1770	.1740
70.144	.0000	.0000	.0000	.1170	.0000	.1170			.1210		.1310	.1420	.1420	.1530	.1610
90.144	.0000	.0000	.0000	.1340	.0000	.1490			.1490		.1640	.1621	.1610	.1460	.1310
120.144	.0000	.0000	.0000	.1540	.0000	.2650			.3420		.1830				
142.144	.0000	.0000	.0000	.1670	.0000	.4190			1.0390		.1530	.1620	.1410	.1630	.1140
150.144	.0000	.0000	.0000	.1760	.0000	.4470			1.3240		.1620	.1400	.1620	.1410	.1190
157.144	.0000	.0000	.0000	.1830	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
162.144	.0000	.0000	.0000	.1890	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
165.144	.0000	.0000	.0000	.1940	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
169.144	.0000	.0000	.0000	.1990	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
172.144	.0000	.0000	.0000	.2040	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
180.144	.0000	.0000	.0000	.2090	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1956	.1901	.1732	.1956	.2259	.2711	.3214	.3953	.5121
PHI															
.000	.0000	.0000	.0000	.0330	.0120	.1630			.1441		.1554	.1669	.1370	.1610	.1830
20.144	.0000	.0000	.0000	.0380	.0080	.1140			.1830		.1668				
40.144	.0000	.0000	.0000	.0760	.0000	.1410			.1160		.1230	.1355	.1468	.1669	.1830
55.144	.0000	.0000	.0000	.0990	.0000	.1120			.1370		.1510	.1668	.1668	.1770	.1740
70.144	.0000	.0000	.0000	.1170	.0000	.1170			.1210		.1310	.1420	.1420	.1530	.1610
90.144	.0000	.0000	.0000	.1340	.0000	.1490			.1490		.1640	.1621	.1610	.1460	.1310
120.144	.0000	.0000	.0000	.1540	.0000	.2650			.3420		.1830				
142.144	.0000	.0000	.0000	.1670	.0000	.4190			1.0390		.1530	.1620	.1410	.1630	.1140
150.144	.0000	.0000	.0000	.1760	.0000	.4470			1.3240		.1620	.1400	.1620	.1410	.1190
157.144	.0000	.0000	.0000	.1830	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
162.144	.0000	.0000	.0000	.1890	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
165.144	.0000	.0000	.0000	.1940	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
169.144	.0000	.0000	.0000	.1990	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
172.144	.0000	.0000	.0000	.2040	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190
180.144	.0000	.0000	.0000	.2090	.0000	.4470			1.2430		.1620	.1400	.1620	.1410	.1190







AMES 87-707 IAS CEA + 33 + 79 ORBITER FUSELAGE

(RUND42)

MACH (3) = 3.942 BETAT (7) = 6.691

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6828	.7380	.7888	.8283	.8848	.9282	.9839	1.0415	1.0992
PHI										
70.140		-.1410	-.1418	-.1430	-.1433	.1270	.1410	.1410	-.1470	
90.144		-.1468	-.1430	-.1428	.1420	.1410	.1410	-.1410		
105.144			.0940	.0190	.0120	.1410	-.1410			
110.144									.0370	
120.144		-.1140	-.1220	.1140	.0590	-.1440	-.1310	-.1210	-.1460	
135.144				.4490	.3050	-.1270	-.1080	-.1030		
150.140		-.1020	-.1040	.0510	.3180	.1680	.1630	.0380		
165.144		-.1090		.1230	.1740	.0750	.0380	.0450		
180.144		-.1130	-.1430	.1480						

MACH (3) = 3.512 BETAT (8) = 6.910

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1075	.0186	.0339	.1612	.1355	.1516	.1581	.1752	.1958	.2259	.2711	.3210	.3853	.5120
PHI															
100.100	.0000	.0000	.0000	.0000	.0230	.1040			.1080	.1190	.1160	.1080	.0780	.1480	.0340
20.140		.4090	.0130	.0070	.1420				.1240	.1490					
40.140		.4200	.0120	-.0200	.0440				.1810	-.1470	-.1420	-.1480	-.1480	-.1490	
55.140		.4180	.0180	-.0110	.0170				.1630						
70.140		.3950	.1210	-.0080	.0160				-.1420	-.1440	-.1440	-.1440	-.1440	-.1440	-.1410
90.140		.4290	.1480	.1460	.1460				-.1270	-.1420	-.1420	-.1420	-.1420	-.1420	-.1430
120.140		.5300	.1530	.1130	.0980				.1690	-.1420	-.1420	-.1420	-.1420	-.1420	-.1420
142.140			.6410	.2620	.2520	.2760			.6360	-.1470	-.1460	-.1460	-.1460	-.1460	-.1470
150.140							1.1240								
157.140															
162.140															
165.140															
169.140															
172.140															
180.100	.0000	.0000	.7350	.3010	.3700	.4140	1.1350		1.3210	-.1410	.1410	.1410	-.1410	-.1420	-.1430

X/LB	.5873	.6828	.7380	.7888	.8283	.8848	.9282	.9839	1.0415	1.0992
PHI										
40.140	-.1080									-.1090
60.140	-.1050	-.1450	.0010	-.0430	-.1480	-.1080				-.1090
70.140	-.1010	-.1020	-.1030	-.1070	.0330	.0330	-.1460			
90.140	-.1270	-.0960	.0040	.0040	-.1050	-.1080	-.1080			
105.140			.1280	.1410	-.1460	-.1420	-.1420			
110.140										-.1480
120.140	-.1080	-.1250	.0880	.0120	-.1050	-.1480	-.1480	-.1480		
135.140		.2460	.2220	-.1410	-.1410	-.1410	-.1410	-.1410		
150.140	-.1090	-.1460	.0070	.1170	.1430	.1430	.1430	.1430		

AMES 87-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE (RONDUC)

MACH ( 3 ) = 3.352      DELTAT ( 0 ) = 0.9110

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB    .5875   .6828   .7386   .7869   .8283   .8848   .9282   .9639   1.0115   1.0592

PHI

189.0140    -.0070    -.0140    -.0270    -.0300    -.0350    -.0420    -.0420

189.0140    -.0660    -.0810    -.0910    -.0950    -.1020    -.1020    -.1020





AVES 07-707 IAS O2A + S3 + T9 ORBITER FUSELAGE

(RBNU03)

MACH ( 1 ) = 2.496 BETAT ( 3 ) = -4.18U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144U	.1675	.0188	.0339	.0602	.1355	.1506	.1561	.1732	.1956	.2259	.2711	.321U	.3953	.512U
PHI										.107U					
142.14U									.927U		.049U	-.147U	-.144U	.036U	.031U
151.14U							1.126U		.959U						
157.14U									.928U						
162.14U															
165.14U															
169.14U															
172.14U							1.144U		1.196U						
180.14U	1.644U	1.268U	.812U	.322U	.331U	.494U									
X/LB	.5875	.6626	.738U	.7869	.8283	.8848	.9052	.9639	1.1415	1.0992					

PHI	.000	-.019U	.043U	.115U	.047U	-.017U	-.074U	-.162U	-.127U	-.157U					
40.14U															
70.14U															
90.14U															
110.14U															
120.14U															
130.14U															
150.14U															
165.14U															
180.14U															

MACH ( 1 ) = 2.496 BETAT ( 4 ) = -2.07U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.000U	.0075	.0188	.0339	.0602	.1355	.1506	.1561	.1732	.1956	.2259	.2711	.321U	.3953	.512U
PHI															
142.14U									.097U		.144U	.161U	.118U	.061U	-.143U
20.14U									.138U		.118U				
40.14U									.301U		.168U	.074U	.074U	.027U	.063U
55.14U									.169U		.271U				
70.14U									.175U		.325U	.103U	.014U	.023U	.037U
90.14U									.194U		.162U	.090U	.038U	.021U	.021U
120.14U									.273U		.123U	-.034U	.042U	.025U	.016U
142.14U									.075U		.023U	-.033U	-.024U	.029U	
150.14U															
157.14U									.921U						
162.14U															
165.14U															
169.14U															
172.14U															

1.180U















AMES 87-707 IA9 ORA + S3 + T9 ORBITER FUSELAGE

(RBINDUS)

MACH ( 2 ) = 2.999      BETAT ( 3 ) = -4.280

SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.5675	.6626	.7360	.7869	.8283	.8648	.9262	.9639	1.0015	1.0392
PHI										
70.1440	.0050	-.0290	-.0250	.0070	.0290	.0150	.0240			
90.1440	.0130	-.0110	-.0430	.0360	.0790	.0710	.0540			
105.1440			.0960	.0760	.0990	.0680	.0410			
120.1440	.0280	.0170	.3580	.2310	.0390	.0390	.0640	.0680		
135.1440			.4730	.4140	.0190	.0130	.0260	.0620		
150.1440	.0230	.0180	.1270	.2420	.0430	.0390	.0920			
165.1440	.0240		.1160	.2620	.2150	.2240	.1130			
180.1440	-.0140	-.0680	.0310							

MACH ( 2 ) = 2.999      BETAT ( 4 ) = -2.100

SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0169	.0339	.0682	.1355	.1916	.1961	.1732	.1936	.2259	.2711	.3244	.3953	.5120
PHI															
20.1440	.0000	.0000	.0000	.0010	.0020	.0070		.1100	.1360	.1670	.1670	.1670	.1670	.1670	.1670
40.1440	.0390	.0150	-.0160	.0190	.1090		.1440	.1440	.1670	.1670	.1670	.1670	.1670	.1670	.1670
60.1440	.0430	.0710	.0130	.1270		.1140	.1340	.1340	.1670	.1670	.1670	.1670	.1670	.1670	.1670
80.1440	.0630	.1210	.0770	.1240		.1340	.1240	.1710	.0710	.0680	.0680	.0680	.0680	.0680	.0680
100.1440	.0820	.1690	.1070		.1140	.1320	.1320	.1180	.0140	.0240	.0240	.0240	.0240	.0240	.0240
120.1440	.0720	.2770	.2270	.2690		.2990	.2990	.1330	-.0160	-.0160	-.0160	-.0160	-.0160	-.0160	-.0160
140.1440	.0730	.3080	.3060	.3630		.5130	.5130	.1450	.0220	-.0160	-.0160	-.0160	-.0160	-.0160	-.0160
160.1440					1.1600										
180.1440	.0000	.0000	.0000	.0000											
200.1440	.0000	.0000	.0000	.0000											
220.1440	.0000	.0000	.0000	.0000											
240.1440	.0000	.0000	.0000	.0000											
260.1440	.0000	.0000	.0000	.0000											
280.1440	.0000	.0000	.0000	.0000											
300.1440	.0000	.0000	.0000	.0000											
320.1440	.0000	.0000	.0000	.0000											
340.1440	.0000	.0000	.0000	.0000											
360.1440	.0000	.0000	.0000	.0000											

SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.5675	.6626	.7360	.7869	.8283	.8648	.9262	.9639	1.0015	1.0392
PHI										
40.1440	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
60.1440	-.0160	-.0370	-.0340	-.0160	-.0460	-.0460	-.0460	-.0460	-.0460	-.0460
80.1440	.0110	-.0210	.0160	.0470	.0390	.0290	.0290	.0290	.0290	.0290
100.1440			.0430	.0480	.0480	.0310	.0220			
120.1440	.0410	.0120	.2980	.1910	.0460	-.0140	.0410	.0620		
140.1440	.4530	.4000	.0240	.0240	.0000	.0250	.0250	.0250		
160.1440	.0160	.0160	.1390	.2790	.0110	.0470	.0470	.0470		







TABULATED PRESSURE DATA - 1A9C

(ORBITER)

AMES 87-707 1A9 OCA + S3 + T9 ORBITER FUSELAGE

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.560

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1510	.1539	.1562	.1585	.1591	.1732	.1956	.2259	.2711	.3214	.3953	.5120
PHI									.1626					
142.1440									.6550					
154.1440									.9560					
157.1440														
162.1440														
165.1440														
169.1440														
172.1440														
180.1440														
X/LB	.9673	.6826	.7380	.7869	.8283	.8648	.9039	1.1415	1.1092					

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 6.770

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1510	.1539	.1562	.1585	.1591	.1732	.1956	.2259	.2711	.3214	.3953	.5120
PHI														
142.1440														
154.1440														
157.1440														
162.1440														
165.1440														
169.1440														
172.1440														
180.1440														
X/LB	.9673	.6826	.7380	.7869	.8283	.8648	.9039	1.1415	1.1092					

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 6.770

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1510	.1539	.1562	.1585	.1591	.1732	.1956	.2259	.2711	.3214	.3953	.5120
PHI														
142.1440														
154.1440														
157.1440														
162.1440														
165.1440														
169.1440														
172.1440														
180.1440														
X/LB	.9673	.6826	.7380	.7869	.8283	.8648	.9039	1.1415	1.1092					

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 6.770

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1510	.1539	.1562	.1585	.1591	.1732	.1956	.2259	.2711	.3214	.3953	.5120
PHI														
142.1440														
154.1440														
157.1440														
162.1440														
165.1440														
169.1440														
172.1440														
180.1440														
X/LB	.9673	.6826	.7380	.7869	.8283	.8648	.9039	1.1415	1.1092					













AMES 87-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNB:3)

MACH ( 5 ) = 3.502 BETAT ( 7 ) = 6.680

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6826	.7586	.7869	.8283	.8848	.9262	.9639	1.0415	1.0992
PHI										
75.144	-.1230	-.1484	-.1360	-.1320	.0114	-.0130	-.0120	-.1220		
97.144	-.1210	-.1260	-.1180	.1480	.1420	-.0120	-.0120	-.1180		
105.144			.0330	.1030	-.1460	-.1220	-.1240			
110.144								-.1050		
120.144	-.1680	-.0190	.0890	.0480	-.1490	-.1420	-.1340	-.1240		
135.144			.3910	.2940	-.1160	-.1290	-.1330			
150.144	-.1390	-.1470	.1340	.2180	.1780	.1480	.1240			
165.144	-.1470		.1130	.1180	.1560	.1220	-.1140			
180.144	-.1310	-.1040	-.1180							

MACH ( 3 ) = 3.312 BETAT ( 8 ) = 6.890

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1516	.1561	.1732	.1956	.2259	.2711	.3200	.3953	.5120
PHI															
.000	.0000	.0000	.1400	.1280	.1280	.1080	.1080		.1780	.1820	.1270	.1820	.1610	.144	.1210
20.000			.3820	.0130	.0250	.0740			.1170		.1440				
40.144			.3820	.1480	-.1280	.1070			.1510		-.1130	-.1230	-.1430	-.1050	-.1350
55.000			.3890	.0150	-.0160	.1070			.1490		.1330				
75.144			.3620	.1420	-.0110	.1480			-.1490		-.1470	-.1050	-.1060	-.1030	-.1010
90.144	.1400		.3870	.0360	.1440	.1420			-.1290		-.1020	-.1080	-.1480	-.1070	-.1040
120.144			.4740	.1250	.1880	.0780			.1670		-.1120	-.1070	-.1070	-.1080	-.1070
142.000			.5670	.2230	.2180	.2350			.5820		-.1120	-.1080	-.1050	-.1040	-.10320
150.160															
157.144									1.0340						
162.000															
165.144															
169.144															
172.144															
180.144	.0000	.1000	.6540	.3250	.3120	.3590			1.1480						

MACH ( 3 ) = 3.312 BETAT ( 8 ) = 6.890

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6826	.7586	.7869	.8283	.8848	.9262	.9639	1.0415	1.0992
PHI										
.144	-.1670									
40.144	-.0580	-.0820	.1230	-.0530	-.0710	-.1080		-.1010		-.1030
75.144	-.0270	-.0410	-.0290	-.1280	.1090	-.1050	-.1010	-.1010		-.1010
90.144	-.1070	-.1030	-.1070	-.1420	-.1110	-.1240	-.1040			
105.144			.1140	-.1080	-.1170	-.1030	-.1030			
110.144								-.1440		
120.144	-.1030	-.1030	.1870	.1180	-.1030	-.1030	-.1040	-.1040		-.1030
135.144			.1960	.2180	-.1440	-.1060	-.1060	-.1060		-.1060
150.144	-.1020	-.1080	-.1190	.1570	.1030	.1010	-.1030	-.1030		-.1030



A:RES 87-707 1A9 OZA + S3 + T9 ORBITER FUSELAGE

(RBNB013)

MACH ( 3 ) = 3.912 BETAT ( 8 ) = 8.891

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LS .5973 .6626 .7381 .7869 .8283 .8848 .9282 .9639 1.0015 1.0392

PHI

185.044  
188.044

-.0630  
-.0630

-.0320  
-.0320

.0630  
.0630

-.0180  
-.0180

-.0480  
-.0480





DATE 17 SEP 73 TABULATED PRESSURE DATA - 1A9C

AMES 87-717 1A9 OCA + S3 + T9 ORBITER FUSELAGE

(RBNBLJ4)

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.311

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1424U	.14075	.0188	.0339	.0612	.1355	.1916	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
.1400	1.5720	.9210	.4370	.1220	.0480	.2180			.1460		.1860	.1493U	.0340	.1419U	-.1411U
20.1440		.4870	.0190	.0650	.2850			.1920		.0790	.1110	.1530	.0320	.1430	.0530
40.1440		.6180	.1230	.1100	.3230			.2540		.2910	.3880				
55.1440		.6710	.1250	.1510	.2650			.3880		.3680	.3990	.1080	.1420	.0910	
70.1440		.7050	.1960	.1840	.2430			.3450		.3790	.3110	.0530	.1280	.1320	
90.1440	1.2790	.7290	.2290	.1720	.2450			.3170		.2130	.1720	.1490	.1280	.1150	
120.1440		.7310	.2930	.2620	.3010			.4110	.1330						
142.1440		.6910	.2810	.2990	.3820			.9150		.1450	.1440	.1230	.1030	.1030	
157.1440							1.1810								
162.1440								.9260							
165.1440								.8520							
169.1440															
172.1440															
180.1440	1.9720	1.1800	.5420	.2770	.2790	.3920	1.1630	1.1110							
X/LB	.5875	.6826	.7380	.7869	.8283	.8848	.9659	1.1415	1.1092						

SECTION ( 2 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1424U	.14075	.0188	.0339	.0612	.1355	.1916	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
.1400	1.6800	.6800	.1750	.0970	.1450	-.0390									
40.1440		.1090	.1750	.0970	.1450	-.0390									
70.1440		-.1440	-.1230	-.0190	.0330	.0410	.0170								
90.1440		.0130	-.0110	.0430	.1850	.1840	.1260								
105.1440			.1140	.1360	.1160	.1430	.1170								
110.1440			.0130	.0120	.3410	.2550	.1490	.0440							
120.1440			.3980	.3970	-.1470	-.1460	.1160								
135.1440			-.1010	-.1470	.1100	.1750	.1490	.1840							
165.1440		.0430	.1160	.2360	.1870	.1920	.1840								
180.1440	-.0920	-.0770	.1080												

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.191

SECTION ( 3 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1424U	.14075	.0188	.0339	.0612	.1355	.1916	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
.1400	1.5610	.9120	.4310	.0110	.0220	.1180									
20.1440		.4770	.0410	.0410	.0350				.1180		.1120	.1190	.0620	.1380	-.1340
40.1440		.5750	.1180	.1650	.1260			.2580		.0980	.1980	.1540	.1110	.1430	.0580
55.1440		.6110	.1440	.1690	.1370			.3380		.2640	.3680				
70.1440		.6360	.1480	.1670	.1470			.2140		.3380	.3380	.1190	.0130	.1230	.0290
90.1440	1.2210	.6630	.1840	.1760	.1440			.3030		.3030	.1130	.1030	.1310	.1110	.0110
120.1440		.6840	.2570	.1830	.2190			.1470	-.1010	.1440	.1470	-.1030	.1440	.1160	.1410

AMES 87-707 1A9 OZA + S3 + T9 ORBITER FUSELAGE (RBNDU4)

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.19U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144U	.1475	.15188	.15339	.14612	.13355	.15146	.1581	.1732	.1938	.2239	.2711	.324U	.3953	.512U
PHI															
142.144U										.196U					
150.144U				.069U	.269U	.243U	.321U		.064U		.018U	-.1033U	-.1021U	.0135U	.148U
157.144U							1.1688U		.691U						
162.144U									.853U						
165.144U															
169.144U															
172.144U							1.1074U								
18U.144U	1.586U	1.192U	.543U	.278U	.239U	.376U		1.111U							
X/LB	.5873	.6828	.738U	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.07U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144U	.1475	.15188	.15339	.14612	.13355	.15146	.1581	.1732	.1938	.2239	.2711	.324U	.3953	.512U
PHI															
142.144U															
150.144U				.128U	.054U	-.102U	-.064U								
157.144U				-.102U	-.103U	.147U	-.114U	.143U							
162.144U				-.009U	-.102U	.148U	.056U	.011U							
165.144U				.194U	.199U	.179U	.119U	.141U							
169.144U															
172.144U															
18U.144U	1.040U	1.168U	.323U	.213U	.136U	.119U	.103U	-.144U							
X/LB	.144U	.1475	.15188	.15339	.14612	.13355	.15146	.1581	.1732	.1938	.2239	.2711	.324U	.3953	.512U

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.07U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144U	.1475	.15188	.15339	.14612	.13355	.15146	.1581	.1732	.1938	.2239	.2711	.324U	.3953	.512U
PHI															
142.144U															
150.144U				.389U	.147U	.123U	.121U								
157.144U				.517U	.141U	.132U	.139U								
162.144U				.548U	.148U	.139U	.139U								
165.144U				.567U	.147U	.121U	.155U								
169.144U				1.139U	.158U	.119U	.163U								
172.144U				.628U	.219U	.163U	.163U								
18U.144U	1.586U	1.192U	.543U	.278U	.239U	.376U		1.032U							
X/LB	.5873	.6828	.738U	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					



AMES 87-707 IAS OEA + S3 + T9 ORBITER FUSELAGE

(RBNS244)

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.18U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.9873	.6826	.736U	.7869	.8283	.8946	.9262	.9639	1.1415	1.1092
PHI										
70.160	-.0300	-.0320	-.0330	-.0340	-.0350	-.0360	-.0370	-.0380		
90.144	-.0110	-.0330	.0170	.0480	.0470	-.0180	-.0320			
105.144			.0850	.0460	.0460	-.0210	-.0420			
115.144										-.0370
120.100	.0060	-.0040	.0110	.0930	-.0410	-.0360	-.0110	-.0120		
135.144			.0190	.3680	-.0400	-.0150	.0480			
150.144	.0070	.0040	.0210	.3990	.0570	.0910	.0580			
165.144	.0080		.0320	.0590	.3320	.1540	.0560			
180.144	-.0010	.0000	.0120							

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.314

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0010	.0075	.0188	.0339	.0602	.1355	.1916	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5124
PHI															
100	1.5700	.8010	.4210	.0060	.0130	.1830			.1190		.1120	.1310	.0610	.0340	-.0340
20.160			.4100	.0070	.0180	.1610			.0610		.0960	.0610	.0610	.0190	
40.144			.4170	.0130	.0110	.0530			.0680		.1050	.1070	.0460	-.0190	-.0190
55.100			.4030	.0060	-.0430	.0620			.0720		.1440				
70.100			.3880	-.0420	-.0170	.0330			.0530		.0930	.0270	-.0240	-.0210	-.0190
90.000	.9960	.4010	.0200	-.0180	.0250	.0250			.0730		.0210	-.0580	-.0310	-.0310	-.0190
120.144			.4680	.1160	.0620	.0760			.0930		-.0290	-.0170	-.0170	-.0140	-.0110
142.000															
150.144			.5320	.1910	.1960	.2370			.0240		-.0550	-.0130	-.0610	-.0610	-.0140
157.144															
165.144									.0320						
180.000									.7820						
172.144															
180.144	1.5700	1.1970	.5410	.2710	.2740	.3580	1.0310								

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.314

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0480	.0280	-.0080	-.0480	-.0740	-.1020	-.1450	-.1450	-.1180	-.1060
PHI										
40.100	-.0480	-.0280	-.0080	-.0480	-.0740	-.1020	-.1450		-.1180	-.1060
70.144			-.0300	-.0500	-.0240	-.0150	-.0390	-.0480		
90.144			-.0110	-.0380	.0110	-.0040	-.0270	-.0420		
105.144				.0310	-.0120	.0120	-.0340	-.0490		
115.144										-.0480
120.144	-.0680	-.0100	.0630	.0590	-.0770	-.0680	-.0390	-.0280		
135.144			.9920	.3990	-.0300	-.0340	-.0240			
150.144	.0040	.0000	.0170	.4610	.0740	.0610	.0320			



## AVES 07-70.7 IAS O2A + S3 + T9 ORBITER FUSELAGE

(RBN08-4)

MACH ( 1 ) = 2.498

BETA1 ( 0 ) = 8.55U

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.664U	.6075	.6188	.6339	.6612	.6355	.6316	.6381	.6259	.6211	.6264	.6353	.6121
PHI													
.140	1.532U	.967U	.357U	.607U	.698U	.292U		.125U	.661U	.686U	.613U	-.615U	-.652U
20.144U		.333U	-.646U	.613U	.218U			.103U	.637U				
40.144U		.336U	-.633U	-.613U	.663U			.622U	-.628U	-.635U	-.657U	-.666U	-.672U
55.144U		.318U	-.646U	-.638U	.621U			.644U	.656U				
70.144U			.291U	-.653U	-.641U	-.616U		.629U	.668U	-.648U	-.651U	-.643U	-.633U
90.144U	.842U		.362U	-.632U	-.654U	-.618U		-.619U	-.638U	-.694U	-.687U	-.652U	-.632U
120.144U		.379U	.661U	.634U	.631U			.622U	-.674U	-.641U	-.642U	-.696U	-.634U
142.144U								-.658U					
150.144U		.465U	.658U	.663U	.693U			.619U	-.684U	-.622U	-.616U	-.672U	-.671U
157.144U							.811U						
162.144U								.752U					
165.144U								.832U					
169.144U									-.635U	-.616U	-.678U	-.695U	-.614U
172.144U						.948U							
180.144U	1.582U	1.179U	.528U	.282U	.272U	.375U		1.668U	-.669U	-.673U	-.654U	-.678U	-.613U
X/LB	.5873	.8626	.798U	.7869	.8283	.8848	.9282	.9639	1.0115	1.0392			

PHI

.140	-.624U												
40.144U	-.648U							-.645U					
70.144U	-.619U	-.617U	-.699U	-.613U	-.652U	-.655U			-.628U				
90.144U	-.615U	-.648U	-.692U	-.616U	-.614U	-.658U			-.677U				
105.144U	-.615U	-.633U	-.666U	-.616U	-.612U	-.663U			-.683U				
115.144U			.638U	-.624U	-.621U	-.664U			-.699U				
120.144U	-.621U	-.623U	.687U	.623U	-.613U	-.666U			-.674U				
135.144U			.688U	.676U	-.654U	-.674U							
150.144U	-.611U	-.613U	.636U	.623U	-.649U	-.629U							
165.144U	-.613U	-.613U	.629U	.638U	.616U	-.679U							
180.144U	-.642U	-.699U	-.633U										

MACH ( 2 ) = 2.999

BETA1 ( 1 ) = -8.580

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.600U	.6075	.6188	.6339	.6612	.6355	.6316	.6381	.6259	.6211	.6264	.6353	.6121
PHI													
.140	.600U	.600U	.604U	.604U	.622U	.695U		.684U	.604U	.676U	.673U	.611U	-.642U
20.144U		.478U	.643U	.624U	.611U			.368U	.618U				
40.144U		.655U	.648U	.685U	.645U			.615U	.681U	.615U	.642U	.649U	.639U
55.144U		.712U	.633U	.679U	.629U			.453U	.654U				
70.144U		.819U	.681U	.662U	.614U			.259U	.427U	.613U	.699U	.696U	.681U
90.144U	.644U	.642U	.699U	.619U	.627U			.298U	.698U	.612U	.614U	.642U	.664U
120.144U		.624U	.648U	.697U	.633U			.225U	.657U	.673U	.673U	.673U	.645U





AMES 07-717 IAS OCA + S3 + T9 ORBITER FUSELAGE

(RDNB1.4)

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -0.420

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
PHI															
40.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
70.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
90.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
110.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
120.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
130.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
140.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
160.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
180.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.260

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
PHI															
40.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
70.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
90.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
110.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
120.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
130.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
140.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
160.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124
180.1440	.1440	.1475	.1510	.1539	.1482	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3244	.3953	.5124

## ANES 07-7J7 IAS OEA + S3 + T9 ORBITER FUSELAGE

(RBNSJ4)

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.20J

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5073	.6626	.7306	.7869	.8283	.8648	.9262	.9639	1.0415	1.0392
PHI										
75.144J	-.013J	-.046J	-.043J	-.029J	.048J	.048J	-.009J	-.014J		
95.144J	-.041J	-.028J	.047J	.049J	.043J	.031J				
105.144J		.064J	.073J	.054J	.023J					
115.144J					.023J	.041J				
125.144J					.020J	.018J	.021J	.044J		
135.144J					.094J	.041J	-.013J	.048J		
155.144J					.089J	.024J	.048J	.063J		
165.144J					.021J	.023J	.017J	.014J	.084J	
185.144J					-.042J	.049J	.024J			

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.11J

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.000J	.0073	.0100	.0339	.0612	.1355	.1516	.1581	.1732	.1938	.2711	.324J	.3953	.512J
PHI														
100	.000J	.000J	.000J	-.004J	-.006J	.027J			.019J	.019J	.031J	.071J	.071J	.048J
20.140				.010J	.010J	.072J			.047J	.047J	.068J	.113J	.113J	.048J
45.144				.021J	.021J	.113J			.063J	.063J	.163J	.196J	.196J	.048J
55.140				.038J	.038J	.169J			.122J	.122J	.215J	.239J	.239J	.048J
75.144				.059J	.059J	.199J			.112J	.112J	.152J	.191J	.191J	.048J
90.000				.041J	.041J	.151J			.016J	.016J	.111J	.012J	.012J	.014J
125.144				.069J	.069J	.188J			.284J	.284J	.114J	-.017J	-.017J	.048J
142.000				.063J	.063J	.369J			.628J	.628J	.023J	-.013J	-.013J	.048J
157.144							1.037J							
182.000									.954J	.954J				
183.000									.954J	.954J				
189.000														
172.144							1.067J							
185.144														
X/LB	.5073	.6626	.7306	.7869	.8283	.8648	.9262	.9639	1.0415	1.0392				
PHI														
40.140	.014J	.014J	.014J	.030J	.047J	-.012J	-.049J							
75.144				-.052J	-.033J	-.011J	-.021J	-.018J						
90.144				-.048J	-.035J	.031J	.023J	.018J						
105.144				.048J	.023J	.033J	.021J	.016J						
110.144								.047J						
125.144								.022J						
135.144								.016J						
155.144								.021J						
185.144								.093J						

AMES 87-7-7 IAG ORA + S3 + T9 ORBITER FUSELAGE (RBNB214)

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.110

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5973 .6626 .7360 .7869 .8283 .8848 .9262 .9639 1.1415 1.1092

PHI

185.144 .1420 .1870 .2230 .1810 .1691 .10741  
189.144 -.1180 -.1110 -.1420

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.210

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .1420 .5073 .5100 .5339 .5612 .5355 .5146 .5181 .581 .1732 .1958 .2259 .2711 .3214 .3953 .5121

PHI

.0000 .0000 .0000 .0300 .1414 .1580 .1070 .1381 .1150 .1781 .1114  
20.144 .3840 .5280 -.1090 .1480 .0960 .0370  
40.144 .4390 .5240 .0040 .0330 .0590 .0630 .1681 .1730 .1280 .1450  
55.144 .4530 .5430 .1430 .1440 .1470 .1690 .1670 .1648 .1430 .1462  
70.144 .4650 .5530 .5180 .1440 .1470 .1690 .1670 .1648 .1430 .1462  
90.144 .4840 .5690 .1340 .1420 .1680 .1680 .1680 .1680 .1680 .1680  
120.144 .5470 .1740 .1270 .1120 .1230 .1540 .1540 .1540 .1540 .1540  
142.144 .5850 .2220 .2170 .2670 .6930 .6930 .6930 .6930 .6930 .6930  
150.144 .9940 .9940 .9940 .9940 .9940 .9940 .9940 .9940 .9940 .9940  
162.144 .9370 .9370 .9370 .9370 .9370 .9370 .9370 .9370 .9370 .9370  
165.144 1.0780 1.0780 1.0780 1.0780 1.0780 1.0780 1.0780 1.0780 1.0780 1.0780  
169.144 .3291 .3291 .3291 .3291 .3291 .3291 .3291 .3291 .3291 .3291  
172.144 .2790 .2790 .2790 .2790 .2790 .2790 .2790 .2790 .2790 .2790  
180.144 .7869 .7869 .7869 .8283 .8048 .9262 .9639 1.1415 1.1092

X/LB .5973 .6626 .7360 .7869 .8283 .8848 .9262 .9639 1.1415 1.1092

PHI

.0000 -.0280 .0280 .0280 .0280 .0280 .0280 .0280 .0280 .0280 .0280  
40.144 -.1110 .1110 .1110 .1110 .1110 .1110 .1110 .1110 .1110 .1110  
70.144 -.1380 .1380 .1380 .1380 .1380 .1380 .1380 .1380 .1380 .1380  
90.144 -.0170 .0170 .0170 .0170 .0170 .0170 .0170 .0170 .0170 .0170  
110.144 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510  
120.144 .1190 .1190 .1190 .1190 .1190 .1190 .1190 .1190 .1190 .1190  
130.144 .4160 .4160 .4160 .4160 .4160 .4160 .4160 .4160 .4160 .4160  
150.144 .1740 .1740 .1740 .1740 .1740 .1740 .1740 .1740 .1740 .1740  
165.144 .0340 .0340 .0340 .0340 .0340 .0340 .0340 .0340 .0340 .0340  
180.144 -.1420 .1420 .1420 .1420 .1420 .1420 .1420 .1420 .1420 .1420

## AMES 87-7U7 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNB:1A)

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.381

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
1A	.1444	.1444	.1444	-.1444	-.1444	.1411	.1411	.1111	.1821	.1911	.1271	.1271	.1271	.1271	.1271
2A	.3694	-.1444	-.1444	-.1444	-.1444	.1071	.1071	.1644	.1644	.1681	.1681	.1681	.1681	.1681	.1681
4A	.4144	.1444	.1444	-.1444	-.1444	.1391	.1391	.1871	.1871	.1891	.1891	.1891	.1891	.1891	.1891
5A	.4194	.1444	.1444	-.1444	-.1444	.1211	.1211	.1244	.1244	.1244	.1244	.1244	.1244	.1244	.1244
7A	.4144	.1444	.1444	-.1444	-.1444	.1211	.1211	.1111	.1111	-.1444	-.1444	-.1444	-.1444	-.1444	-.1444
9A	.4334	.1444	.1444	-.1444	-.1444	.1181	.1181	.1291	.1291	-.1444	-.1444	-.1444	-.1444	-.1444	-.1444
12A	.4914	.1444	.1444	-.1444	-.1444	.1131	.1131	.1144	.1144	.1031	.1031	.1031	.1031	.1031	.1031
14A	.5494	.1444	.1444	-.1444	-.1444	.2331	.2331	.6311	.6311	-.1444	-.1444	-.1444	-.1444	-.1444	-.1444
15A	.1444	.1444	.1444	-.1444	-.1444	.2331	.2331	.9121	.9121						
157A	.1444	.1444	.1444	-.1444	-.1444	.2331	.2331	.8881	.8881						
162A	.1444	.1444	.1444	-.1444	-.1444	.2331	.2331	.9341	.9341						
169A	.1444	.1444	.1444	-.1444	-.1444	.2331	.2331	.9341	.9341						
172A	.1444	.1444	.1444	-.1444	-.1444	.2331	.2331	1.2161	1.2161						
181A	.1444	.1444	.1444	-.1444	-.1444	.2331	.2331	1.1411	1.1411						

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.551

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
1A	-.1226	-.1475	-.1808	-.1339	-.1612	-.1355	-.1976	-.1581	-.1732	-.1958	-.2259	-.2711	-.3214	-.3953	-.5121
4A	-.1226	-.1475	-.1808	-.1339	-.1612	-.1355	-.1976	-.1581	-.1732	-.1958	-.2259	-.2711	-.3214	-.3953	-.5121
7A	-.1226	-.1475	-.1808	-.1339	-.1612	-.1355	-.1976	-.1581	-.1732	-.1958	-.2259	-.2711	-.3214	-.3953	-.5121
9A	-.1226	-.1475	-.1808	-.1339	-.1612	-.1355	-.1976	-.1581	-.1732	-.1958	-.2259	-.2711	-.3214	-.3953	-.5121
12A	-.1226	-.1475	-.1808	-.1339	-.1612	-.1355	-.1976	-.1581	-.1732	-.1958	-.2259	-.2711	-.3214	-.3953	-.5121
15A	-.1226	-.1475	-.1808	-.1339	-.1612	-.1355	-.1976	-.1581	-.1732	-.1958	-.2259	-.2711	-.3214	-.3953	-.5121
16A	-.1226	-.1475	-.1808	-.1339	-.1612	-.1355	-.1976	-.1581	-.1732	-.1958	-.2259	-.2711	-.3214	-.3953	-.5121
165A	-.1226	-.1475	-.1808	-.1339	-.1612	-.1355	-.1976	-.1581	-.1732	-.1958	-.2259	-.2711	-.3214	-.3953	-.5121
181A	-.1226	-.1475	-.1808	-.1339	-.1612	-.1355	-.1976	-.1581	-.1732	-.1958	-.2259	-.2711	-.3214	-.3953	-.5121

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.551

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
1A	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
2A	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
4A	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
5A	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
7A	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
9A	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
12A	.1226	.1475	.1808	.1339	.1612	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121

## AMES 87-757 1A9 OZA + S3 + T9 ORBITER FUSELAGE

(RBNSU4)

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.551

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1675	.3339	.4962	.6556	.8151	.9732	1.1298	1.2842	1.4353	1.5820	1.7241	1.8613	1.9933	.5121
PHI															
142.1440															
150.1440															
157.1440															
162.1440															
165.1440															
169.1440															
172.1440															
181.1440															
189.1440															
197.1440															
X/LB	.5873	.7386	.8848	.9262	.9639	1.0015	1.0392								

PHI

.0000	-.0470														
40.1440	-.0370	-.1464													
70.1440	-.0320	-.0920	-.0570	-.0890	-.1130										
90.1440	-.0310	-.0690	-.0450	-.0710	-.0860	-.1060									
105.1440		-.0280	-.0370	-.0420	-.0460										
110.1440															
120.1440															
135.1440															
150.1440															
165.1440															
180.1440															

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 2.710

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1675	.3339	.4962	.6556	.8151	.9732	1.1298	1.2842	1.4353	1.5820	1.7241	1.8613	1.9933	.5121
PHI															
142.1440															
150.1440															
157.1440															
162.1440															
165.1440															
169.1440															
172.1440															
181.1440															
189.1440															
197.1440															
X/LB	.0000	.1675	.3339	.4962	.6556	.8151	.9732	1.1298	1.2842	1.4353	1.5820	1.7241	1.8613	1.9933	.5121









AMES 87-757 IA9 OZA + S3 + T9 ORBITER FUSELAGE (RDND:4)

MACH ( 3 ) = 3.542 BETAT ( 4 ) = -2.154

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0180	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.140	.0000	.0000	.0000	.0200	.0400	.0600	.0800	.1000	.1200	.1400	.1600	.1800	.2000	.2200	.2400
20.000	.0000	.0000	.0000	.0270	.0540	.0810	.1080	.1350	.1620	.1890	.2160	.2430	.2700	.2970	.3240
40.000	.0000	.0000	.0000	.0780	.0330	.0330	.0330	.0330	.0330	.0330	.0330	.0330	.0330	.0330	.0330
60.000	.0000	.0000	.0000	.1280	.0810	.0810	.0810	.0810	.0810	.0810	.0810	.0810	.0810	.0810	.0810
80.000	.0000	.0000	.0000	.1550	.1100	.1100	.1100	.1100	.1100	.1100	.1100	.1100	.1100	.1100	.1100
100.000	.0000	.0000	.0000	.1920	.1200	.1200	.1200	.1200	.1200	.1200	.1200	.1200	.1200	.1200	.1200
120.000	.0000	.0000	.0000	.2680	.2000	.2000	.2000	.2000	.2000	.2000	.2000	.2000	.2000	.2000	.2000
140.000	.0000	.0000	.0000	.2860	.2670	.2670	.2670	.2670	.2670	.2670	.2670	.2670	.2670	.2670	.2670
157.000	.0000	.0000	.0000	.2810	.2810	.2810	.2810	.2810	.2810	.2810	.2810	.2810	.2810	.2810	.2810
165.000	.0000	.0000	.0000	.3010	.3010	.3010	.3010	.3010	.3010	.3010	.3010	.3010	.3010	.3010	.3010
189.000	.0000	.0000	.0000	.3260	.3260	.3260	.3260	.3260	.3260	.3260	.3260	.3260	.3260	.3260	.3260
172.000	.0000	.0000	.0000	.1.1230	.1.1230	.1.1230	.1.1230	.1.1230	.1.1230	.1.1230	.1.1230	.1.1230	.1.1230	.1.1230	.1.1230
180.000	.0000	.0000	.0000	.7360	.7869	.8283	.8648	.9039	.9415	.9762	.1.0092	.1.0415	.1.0715	.1.1000	.1.1270
X/LB	.5875	.6626	.7360	.7869	.8283	.8648	.9039	.9415	1.0092	1.0715	1.1000	1.1270	1.1540	1.1810	1.2080

MACH ( 3 ) = 3.542 BETAT ( 5 ) = 2.260

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0180	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.140	.0000	.0000	.0000	.0520	.0210	.0590	.0590	.0590	.0590	.0590	.0590	.0590	.0590	.0590	.0590
20.000	.0000	.0000	.0000	.0380	.0190	.0530	.0530	.0530	.0530	.0530	.0530	.0530	.0530	.0530	.0530
40.000	.0000	.0000	.0000	.0380	.0210	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450
60.000	.0000	.0000	.0000	.0680	.0290	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450
80.000	.0000	.0000	.0000	.0610	.0390	.0480	.0480	.0480	.0480	.0480	.0480	.0480	.0480	.0480	.0480
100.000	.0000	.0000	.0000	.1120	.0580	.0620	.0620	.0620	.0620	.0620	.0620	.0620	.0620	.0620	.0620
120.000	.0000	.0000	.0000	.1960	.1460	.1460	.1460	.1460	.1460	.1460	.1460	.1460	.1460	.1460	.1460
140.000	.0000	.0000	.0000	.2220	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620
157.000	.0000	.0000	.0000	.2220	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620
165.000	.0000	.0000	.0000	.2220	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620
189.000	.0000	.0000	.0000	.2220	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620	.1620
172.000	.0000	.0000	.0000	.1.0800	.1.0800	.1.0800	.1.0800	.1.0800	.1.0800	.1.0800	.1.0800	.1.0800	.1.0800	.1.0800	.1.0800
180.000	.0000	.0000	.0000	.0710	.0710	.0710	.0710	.0710	.0710	.0710	.0710	.0710	.0710	.0710	.0710
X/LB	.0000	.0075	.0180	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120

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(RDNB-4)

AMES 87-7J7 IAS OEA + S3 + T9 ORBITER FUSELAGE

MACH ( 3 ) = 3.342 BETAT ( 5 ) = 2.26U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5444	.5475	.5488	.5339	.4612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5124
PHI										.6894					
142.144			.628U	.248U	.229U	.273U		1.468U	.721U		.518U	-.031U	-.033U	-.038U	-.038U
150.144									.996U						
157.144									1.032U						
162.144															
165.144															
169.144															
172.144			.000U	.607U	.297U	.324U	1.139U		1.348U						
181.144															
X/LB	.5973	.6826	.738U	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

MACH ( 3 ) = 3.342 BETAT ( 6 ) = 4.48U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5444	.5475	.5488	.5339	.4612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5124
PHI															
142.144															
150.144															
157.144															
162.144															
165.144															
169.144															
172.144															
181.144															
X/LB	.5973	.6826	.738U	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

MACH ( 3 ) = 3.342 BETAT ( 6 ) = 4.48U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5444	.5475	.5488	.5339	.4612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5124
PHI															
142.144															
150.144															
157.144															
162.144															
165.144															
169.144															
172.144															
181.144															
X/LB	.5973	.6826	.738U	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

AVES 87-7J7 1A9 02A + S3 + T9 ORBITER FUELAGE

(R080014)

MACH ( 3 ) = 3.542 BETAT ( 6 ) = 4.462

SECTION ( 1 ) ORBITER FUELAGE DEPENDENT VARIABLE CP

X/LB .0440 .0475 .0488 .0339 .0612 .1355 .1516 .1501 .1732 .1938 .2259 .2711 .3214 .3953 .5121

PHI

180.144 .1440 .1440 .0830 .2940 .2761 .3191 1.3371 -.0170 -.0180 -.0220 -.0130 -.0370 -.0370

X/LB .5973 .6826 .7580 .7869 .8283 .8848 .9262 .9639 1.0115 1.0392

PHI

.1440 -.0180 -.0230 -.0360 -.0390 -.0480 -.0560 -.0770 -.0960 -.0940

40.144 -.0350 -.0350 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

70.144 -.0350 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

90.144 -.0480 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

110.144 -.0480 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

120.144 -.0480 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

135.144 -.0480 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

150.144 -.0480 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

165.144 -.0480 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

180.144 -.0480 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.660

SECTION ( 1 ) ORBITER FUELAGE DEPENDENT VARIABLE CP

X/LB .0440 .0475 .0488 .0339 .0612 .1355 .1516 .1501 .1732 .1938 .2259 .2711 .3214 .3953 .5121

PHI

.000 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

20.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

40.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

50.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

70.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

90.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

120.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

142.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

150.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

157.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

162.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

165.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

165.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

172.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

180.144 .0000 .0000 .0000 .0000 .0010 .0020 .0020 .0120 .0120 .0120 .0120 .0120 .0120 .0120

X/LB .5973 .6826 .7580 .7869 .8283 .8848 .9262 .9639 1.0115 1.0392

PHI

.1440 -.0360 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

40.144 -.0480 -.0480 -.0480 -.0480 -.0480 -.0660 -.0770 -.0960 -.0940

AMES 87-7J7 IAS OCA + 33 + T9 ORBITER FUSELAGE

(RBNB2J4)

MACH ( 3 ) = 3.342 BETAT ( 7 ) = 6.66J

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6828	.7388	.7869	.8283	.8848	.9282	.9639	1.0415	1.0392
PHI										
75.144J	-.142J	-.159J	-.148J	-.148J	-.147J	-.152J	-.132J	-.137J		
95.144J	-.123J	-.136J	-.131J	-.131J	-.131J	-.128J	-.128J	-.133J		
115.144J			-.114J	-.111J	-.122J	-.137J	-.136J			
115.144J								-.144J		
125.144J	-.132J	-.126J	.177J	.137J	-.154J	-.154J	-.144J	-.135J		
135.144J			.322J	.283J	-.121J	-.127J	-.124J			
135.144J	-.148J	-.156J	.121J	.141J	.152J	.137J	.112J			
165.144J	-.159J		-.148J	.177J	.158J	.133J	-.127J			
185.144J	-.179J	-.163J	-.143J							

MACH ( 3 ) = 3.342 BETAT ( 8 ) = 8.87J

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1000	.1175	.1418	.1339	.1612	.1355	.1516	.1581	.1732	.1956	.2259	.2711	.3255	.3953	.512J
PHI															
110.144J	.140J	.140J	.140J	.122J	-.146J	.182J			.171J		.119J	.166J	.148J	.134J	.143J
25.144J	.357J	.176J	.176J	.176J	.160J	.160J			.147J		.142J	-.128J	-.151J	-.166J	-.164J
40.144J	.362J	.142J	.135J	.131J	.131J	.131J			.121J		.121J	-.128J	-.151J	-.166J	-.164J
55.144J	.382J	.160J	.124J	-.175J					.147J		.147J	-.147J	-.147J	-.143J	-.125J
70.144J	.332J	.162J	.162J	-.142J					-.147J		-.147J	-.147J	-.147J	-.143J	-.125J
90.144J	.332J	.123J	-.112J	-.148J					-.134J		-.147J	-.147J	-.147J	-.143J	-.125J
125.144J	.422J	.111J	.169J	.159J					.151J		-.117J	-.179J	-.148J	-.149J	-.179J
142.144J									.122J		-.117J	-.166J	-.143J	-.154J	-.151J
150.144J	.502J	.183J	.189J	.189J				.899J			-.166J	-.156J	-.144J	-.158J	-.177J
157.144J									.939J		-.166J	-.156J	-.144J	-.158J	-.177J
162.144J									.991J		-.166J	-.156J	-.144J	-.158J	-.177J
165.144J											-.166J	-.156J	-.144J	-.158J	-.177J
169.144J											-.166J	-.156J	-.144J	-.158J	-.177J
172.144J	.140J	.100J	.178J	.277J	.282J	.298J	.917J		1.287J		-.111J	-.124J	-.136J	-.157J	-.177J
181.144J	.140J	.100J	.178J	.277J	.282J	.298J					-.111J	-.124J	-.136J	-.157J	-.177J

MACH ( 3 ) = 3.342 BETAT ( 8 ) = 8.87J

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6828	.7388	.7869	.8283	.8848	.9282	.9639	1.0415	1.0392
PHI										
110.144J	-.140J	-.140J	-.140J	-.122J	-.146J	.182J			-.171J	
25.144J	-.176J	-.176J	-.176J	-.176J	-.160J	-.160J			.147J	
40.144J	-.142J	-.135J	-.131J	-.131J	-.131J	-.131J			.121J	
55.144J	-.160J	-.124J	-.175J						.147J	
70.144J	-.162J	-.162J	-.142J						-.147J	
90.144J	-.162J	-.123J	-.112J	-.148J					-.134J	
125.144J	-.422J	-.111J	.169J	.159J					.122J	
142.144J									.151J	
150.144J	.502J	.183J	.189J	.189J				.899J		
157.144J									.939J	
162.144J									.991J	
165.144J										
169.144J										
172.144J	.140J	.100J	.178J	.277J	.282J	.298J	.917J		1.287J	
181.144J	.140J	.100J	.178J	.277J	.282J	.298J				

ANES 07-7J7 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(R0208U4)

MACH ( 3 ) = 3.542      BETAT ( 0 ) = 6.07U

SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB      .9073    .6626    .738U    .7069    .8283    .6846    .9262    .9039    1.14115    1.1392

PHI

189.144U  
189.144U

-1.079U    -1.093U    -1.088U    -1.072U  
-.1691U    .131U    .163U    -.138U    -.164U







AMES 87-717 IAS OEA + S3 + T9 ORBITER FUSELAGE

(RBNB:J5)

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.19U

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.1444	.1475	.1188	.1339	.1612	.1355	.1916	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5124
PHI									.174U		.144U	-.106U	-.1034U	-.1469U	-.1413U
142.144									.795U						
154.144								.964U							
157.144									.821U						
162.144									.782U						
165.144															
169.144							.984U								
172.144									1.125U						
184.144															
X/LB	.5875	.6826	.7385	.7869	.8283	.8848	.9262	.9659	1.1115	1.1092					

## PHI

.144	-.168U														
41.144	.139U	.133U	.131U	.164U	.111U	-.162U									
71.144	-.145U	-.159U	-.153U	-.148U	-.159U	-.116U									
91.144	-.127U	-.146U	.111U	.134U	.127U	.146U									
115.144			.159U	.174U	.155U	.149U	-.116U								
121.144			-.123U	-.133U	.191U	.161U	-.141U	.113U							
124.144			.351U	.377U	-.142U	-.133U	.142U								
135.144			-.132U	-.129U	.182U	-.152U	.147U	.178U							
151.144			-.134U	-.197U	.219U	.154U	.139U	.144U							
181.144			-.163U	-.148U	.153U										

MACH ( 1 ) = 2.498

BETAT ( 4 ) = -2.17U

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.1444	.1475	.1188	.1339	.1612	.1355	.1916	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5124
PHI									.151U		.149U	.159U	.168U	.162U	.147U
21.144									.179U						
41.144									.267U						
61.144									.198U						
91.144									.141U						
111.144									.108U						
121.144									.109U						
124.144									.269U						
142.144									.744U						
154.144															
157.144									.791U						
162.144															
165.144															
169.144															
172.144															

.998U





## AMES 07-707 IA9 OZA + S3 + T9 ORBITER FUSELAGE

(RBND:5)

MACH ( 1 ) = 2.498

BETAT ( 6 ) = 4.314

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.5075	.6626	.7380	.7859	.8283	.8848	.9262	.9639	1.0115	1.0392
PHI										
165.100	-0.0361			-0.0115	.3270	.1770	.0795	.0161		
180.100	-0.0645	-0.0465								

MACH ( 1 ) = 2.498

BETAT ( 7 ) = 6.423

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.5075	.6626	.7380	.7859	.8283	.8848	.9262	.9639	1.0115	1.0392
PHI										
165.100	1.4990	.8091	.4191	.0130	.0340	.2260	.1240	.1250	.1732	.1958
180.100	.3930	.0110	.0260	.1240	.1240	.1240	.1240	.1240	.1240	.1240
195.100	.1340	.0110	.0180	.0170	.0170	.0170	.0170	.0170	.0170	.0170
210.100	.3530	.0110	-0.0120	.0160	.0160	.0160	.0160	.0160	.0160	.0160
225.100	.3230	.0220	-0.0190	.0180	.0180	.0180	.0180	.0180	.0180	.0180
240.100	.3230	.0180	-0.0210	.0130	.0130	.0130	.0130	.0130	.0130	.0130
255.100	.3810	.0630	.0360	.0410	.0410	.0410	.0410	.0410	.0410	.0410
270.100	.4440	.1380	.1140	.1920	.1920	.1920	.1920	.1920	.1920	.1920
285.100	.1570			.8050						
300.100	.7160									
315.100	.7760									
330.100	1.1150	.4770	.2280	.2980	.2980	.2980	.2980	.2980	.2980	.2980
345.100	.5073	.6626	.7380	.7859	.8283	.8848	.9262	.9639	1.0115	1.0392

## PHI

X/LB	.5075	.6626	.7380	.7859	.8283	.8848	.9262	.9639	1.0115	1.0392
165.100	-0.0360									
180.100	-0.0420	-0.0300								
195.100	-0.0480	-0.0660	-0.0570	-0.1160	-0.1420	-0.1420	-0.1420	-0.1420	-0.1420	-0.1420
210.100	-0.0340	-0.0490	-0.0210	-0.0470	-0.0570	-0.0570	-0.0570	-0.0570	-0.0570	-0.0570
225.100	.0480	.0480	.0480	.0480	.0480	.0480	.0480	.0480	.0480	.0480
240.100	-0.0320	-0.0400	.1490	.0230	-0.1170	-0.1110	-0.0760	-0.0610	-0.0610	-0.0610
255.100	.0340	.0340	.0340	.0340	.0340	.0340	.0340	.0340	.0340	.0340
270.100	-0.0490	-0.0530	.0630	.0310	.0210	.0210	.0210	.0210	.0210	.0210
285.100	-0.0710	-0.0230	.0230	.0350	.0380	.0380	.0380	.0380	.0380	.0380
300.100	-0.1080	-0.0940	.0160							

## AMES 87-747 IA9 OZA + S3 + T9 ORBITER FUSELAGE

(RBNBLS)

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.54U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	.0000	.0075	.0188	.0339	.0612	.1355	.3516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
.000																
1.484U	.876U	.331U	.046U	.033U	.301U	.301U			.121U		.041U	.072U	.066U	-.038U	-.059U	
2U.144U		.337U	.042U	.049U	.231U	.231U			.083U		.025U					
4U.144U		.334U	.043U	-.017U	.011U				.017U		-.042U	-.032U	-.064U	-.087U	-.114U	
5U.144U		.346U	-.039U	-.047U	-.019U				.025U		.045U					
7U.144U		.272U	-.057U	-.047U	-.028U				.026U		.054U	-.047U	-.039U	-.059U	-.067U	
9U.144U	.798U	.272U	-.044U	-.058U	-.036U				-.018U		-.021U	-.085U	-.089U	-.057U	-.054U	
12U.144U		.338U	.038U	.045U	.068U				.044U		-.079U	-.144U	-.144U	-.086U	-.054U	
142.144U									-.071U							
15U.144U		.414U	.125U	.121U	.145U				.461U		-.095U	-.137U	-.117U	-.085U	-.089U	
157.144U								.728U								
162.144U									.694U							
165.144U									.763U							
169.144U																
172.144U																
28U.144U	1.484U	1.110U	.471U	.217U	.221U	.301U	.846U				-.146U	-.116U	-.094U	-.119U	-.131U	
50U.144U	.587U	.682U	.738U	.786U	.828U	.884U	.928U	.963U	1.010U	1.039U		-.084U	-.087U	-.069U	-.122U	-.141U

X/LB

PHI

.000																
4U.144U	-.028U															
8U.144U	-.087U	-.017U	-.018U	-.093U	-.145U	-.123U			-.144U		-.124U					
7U.144U		-.041U	-.069U	-.094U	-.038U	-.068U					-.119U					
9U.144U		-.034U	-.052U	-.028U	-.031U	-.058U										
10U.144U			.014U	-.043U	-.032U	-.073U										
11U.144U									-.084U							
12U.144U		-.047U	-.046U	.011U	-.011U	-.015U			-.084U							
13U.144U		.516U	.357U	-.069U	-.087U	-.081U										
15U.144U		-.124U	-.128U	.049U	-.023U	-.021U										
16U.144U		-.111U	-.016U	.032U	.025U	-.045U										
18U.144U		-.149U	-.115U	-.093U												

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.29U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	.0000	.0075	.0188	.0339	.0612	.1355	.3516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
.000																
1.572U	.863U	.349U	.044U	.017U	.087U				.203U		.082U	.058U	.064U	.044U	-.010U	
2U.144U		.445U	.037U	.049U	.019U				.293U		.102U					
4U.144U		.619U	.096U	.077U	.078U				.253U		.175U	.104U	.028U	.046U	.026U	
5U.144U		.719U	.172U	.174U	.228U				.454U		.327U					
7U.144U		.779U	.223U	.191U	.221U				.257U		.412U	.191U	.082U	.076U	.062U	
9U.144U	1.356U	.844U	.284U	.244U	.213U				.344U		.344U	.175U	.091U	.068U	.044U	
12U.144U		.763U	.282U	.266U	.303U				.198U		.198U	.049U	.064U	.043U	.023U	

AMES 07-7J7 1A9 OEA + S3 + TO ORBITER FUSELAGE (RBINBUJ5)

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.59U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144U	.147U	.148U	.133U	.161U	.135U	.154U	.158U	.173U	.193U	.225U	.271U	.324U	.395U	.512U
PHI															
142.144U		.677U	.284U	.263U	.334U				.945U	.182U	.145U	.122U	.118U	.137U	.121U
150.144U						1.141U			.955U		.148U	.114U	.125U	.141U	.131U
157.144U									.856U						
162.144U															
165.144U															
169.144U															
172.144U						.928U									
180.144U	1.572U	1.138U	.544U	.236U	.285U			1.181U							

X/LB .987U .662U .738U .769U .828U .848U .926U .963U 1.141U 1.039U

PHI

X/LB	.144U	.147U	.148U	.133U	.161U	.135U	.154U	.158U	.173U	.193U	.225U	.271U	.324U	.395U	.512U
142.144U		.189U	.136U	.154U											
150.144U	.149U	.144U	.157U	.154U	.124U										
157.144U															
162.144U															
165.144U															
169.144U															
172.144U															
180.144U	1.111U	.100U	.351U	.281U	.189U	.188U									
120.144U		.289U	.326U	.141U	.147U										
135.144U		.148U	.143U	.144U	-.121U	.131U									
150.144U		.142U	.175U	.145U	.167U	.163U									
165.144U															
180.144U															

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.44U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144U	.147U	.148U	.133U	.161U	.135U	.154U	.158U	.173U	.193U	.225U	.271U	.324U	.395U	.512U
PHI															
20.144U	1.603U	.869U	.397U	.131U	.121U	.166U			.145U		.189U	.169U	.165U	.146U	-.123U
40.144U		.582U	.179U	.169U	.157U				.278U		.114U				
55.144U		.684U	.112U	.138U	.176U				.319U		.165U	.194U	.134U	.121U	.146U
70.144U		.714U	.168U	.148U	.162U				.214U		.305U				
90.144U	1.318U	.743U	.241U	.162U	.175U				.198U		.345U	.174U	.167U	.158U	.141U
120.144U		.724U	.281U	.234U	.262U				.175U		.212U	.139U	.181U	.146U	.126U
142.144U		.657U	.279U	.251U	.313U				.361U		.161U	.119U	.129U	.141U	.141U
157.144U									.149U						
162.144U									.149U						
165.144U									.149U						
169.144U															
172.144U															

.953U









## AWES 07-7J7 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RBMBUS)

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.375

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	1.675	1.906	1.339	1.662	1.355	1.916	1.561	1.732	1.958	1.324	1.953	1.512
140	1.6130	0.668	0.343	0.621	-0.148	0.688		0.119	0.774	0.666	0.599	0.528	-0.146
20.140								0.621	0.623	0.623	0.644	-0.146	0.599
40.140								0.599	0.599	0.599	0.599	0.599	0.599
55.140								0.599	0.599	0.599	0.599	0.599	0.599
70.140								0.599	0.599	0.599	0.599	0.599	0.599
90.140								0.599	0.599	0.599	0.599	0.599	0.599
120.140								0.599	0.599	0.599	0.599	0.599	0.599
142.140								0.599	0.599	0.599	0.599	0.599	0.599
150.140								0.599	0.599	0.599	0.599	0.599	0.599
157.140								0.599	0.599	0.599	0.599	0.599	0.599
162.140								0.599	0.599	0.599	0.599	0.599	0.599
165.140								0.599	0.599	0.599	0.599	0.599	0.599
169.140								0.599	0.599	0.599	0.599	0.599	0.599
172.140								0.599	0.599	0.599	0.599	0.599	0.599
180.140	1.6130	1.191	0.504	0.261	0.258	0.275	0.934	2.118	-0.577	-0.552	-0.539	-0.537	-0.541
190.140	0.626	0.738	0.769	0.828	0.828	0.828	0.922	0.969	1.141	1.139	1.139	1.139	1.139

MACH ( 2 ) = 2.999

BETAT ( 7 ) = 6.937

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	1.675	1.906	1.339	1.662	1.355	1.916	1.561	1.732	1.958	1.324	1.953	1.512
140	1.6130	0.668	0.343	0.621	-0.148	0.688		0.119	0.774	0.666	0.599	0.528	-0.146
20.140								0.621	0.623	0.623	0.644	-0.146	0.599
40.140								0.599	0.599	0.599	0.599	0.599	0.599
55.140								0.599	0.599	0.599	0.599	0.599	0.599
70.140								0.599	0.599	0.599	0.599	0.599	0.599
90.140								0.599	0.599	0.599	0.599	0.599	0.599
120.140								0.599	0.599	0.599	0.599	0.599	0.599
150.140								0.599	0.599	0.599	0.599	0.599	0.599
157.140								0.599	0.599	0.599	0.599	0.599	0.599
162.140								0.599	0.599	0.599	0.599	0.599	0.599
165.140								0.599	0.599	0.599	0.599	0.599	0.599
169.140								0.599	0.599	0.599	0.599	0.599	0.599
172.140								0.599	0.599	0.599	0.599	0.599	0.599
180.140	1.6130	1.191	0.504	0.261	0.258	0.275	0.934	2.118	-0.577	-0.552	-0.539	-0.537	-0.541

MACH ( 2 ) = 2.999

BETAT ( 7 ) = 6.937

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	1.675	1.906	1.339	1.662	1.355	1.916	1.561	1.732	1.958	1.324	1.953	1.512
140	1.6130	0.668	0.343	0.621	-0.148	0.688		0.119	0.774	0.666	0.599	0.528	-0.146
20.140								0.621	0.623	0.623	0.644	-0.146	0.599
40.140								0.599	0.599	0.599	0.599	0.599	0.599
55.140								0.599	0.599	0.599	0.599	0.599	0.599
70.140								0.599	0.599	0.599	0.599	0.599	0.599
90.140								0.599	0.599	0.599	0.599	0.599	0.599
120.140								0.599	0.599	0.599	0.599	0.599	0.599
150.140								0.599	0.599	0.599	0.599	0.599	0.599
157.140								0.599	0.599	0.599	0.599	0.599	0.599
162.140								0.599	0.599	0.599	0.599	0.599	0.599
165.140								0.599	0.599	0.599	0.599	0.599	0.599
169.140								0.599	0.599	0.599	0.599	0.599	0.599
172.140								0.599	0.599	0.599	0.599	0.599	0.599
180.140	1.6130	1.191	0.504	0.261	0.258	0.275	0.934	2.118	-0.577	-0.552	-0.539	-0.537	-0.541









DATE 17 SEP 73 TABULATED PRESSURE DATA - IA9C  
 ANES 07-7:7 IA9 ORA + S3 + T9 ORBITER FUSELAGE (RBNBLS)

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP												
X/LB		.0180	.0339	.0602	.1355	.1506	.1501	.1732	.1950	.2259	.2711	.3200	.3953	.5120
PM1														
140	.0000	.0400	.0450	.0480	.0270			.0800		.0530	.0790	.0850	.0610	.0210
20	.0000	.0410	.0600	.0100	.0310			.0490		.0760	.0970	.0440	.0210	.0180
40	.0000	.0120	.0720	.0500	.0970			.0430		.1420	.0970	.0440	.0210	.0180
55	.0000	.0240	.0170	.0750	.0830			.0150		.0030	.0440	.0460	.0310	.0160
70	.0000	.0870	.0400	.0800	.0890			.0740		.0100	.0130	.0470	.0310	.0180
90	.0000	.0390	.0170	.0110	.0400			.2030		.0100	.0170	.0270	.0180	.0160
120	.0000	.0450	.0280	.0160	.0810			.1100		.0250	.0180	.0240	.0290	.0240
150	.0000	.0250	.0200	.0200	.0280		.9930	.7600		.0250	.0180	.0240	.0290	.0240
157	.0000							.9300		.0100	.0220	.0220	.0270	.0310
162	.0000							.9300		.0100	.0220	.0220	.0270	.0310
165	.0000							.9300		.0100	.0220	.0220	.0270	.0310
169	.0000							.9300		.0100	.0220	.0220	.0270	.0310
172	.0000							.9300		.0100	.0220	.0220	.0270	.0310
180	.0000							.9300		.0100	.0220	.0220	.0270	.0310
X/LB		.0000	.0000	.0000	.0000			1.2170		.0280	.0300	.0270	.0260	.0330
		.0070	.0626	.0780	.0846	.9262	.9639	1.0015	1.0392					

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP												
X/LB		.0180	.0339	.0602	.1355	.1506	.1501	.1732	.1950	.2259	.2711	.3200	.3953	.5120
PM1														
140	.0000	.0400	.0450	.0480	.0270			.0800		.0530	.0790	.0850	.0610	.0210
20	.0000	.0410	.0600	.0100	.0310			.0490		.0760	.0970	.0440	.0210	.0180
40	.0000	.0120	.0720	.0500	.0970			.0430		.1420	.0970	.0440	.0210	.0180
55	.0000	.0240	.0170	.0750	.0830			.0150		.0030	.0440	.0460	.0310	.0160
70	.0000	.0870	.0400	.0800	.0890			.0740		.0100	.0130	.0470	.0310	.0180
90	.0000	.0390	.0170	.0110	.0400			.2030		.0100	.0170	.0270	.0180	.0160
120	.0000	.0450	.0280	.0160	.0810			.1100		.0250	.0180	.0240	.0290	.0240
150	.0000	.0250	.0200	.0200	.0280		.9930	.7600		.0250	.0180	.0240	.0290	.0240
157	.0000							.9300		.0100	.0220	.0220	.0270	.0310
162	.0000							.9300		.0100	.0220	.0220	.0270	.0310
165	.0000							.9300		.0100	.0220	.0220	.0270	.0310
169	.0000							.9300		.0100	.0220	.0220	.0270	.0310
172	.0000							.9300		.0100	.0220	.0220	.0270	.0310
180	.0000							.9300		.0100	.0220	.0220	.0270	.0310
X/LB		.0000	.0000	.0000	.0000			1.2170		.0280	.0300	.0270	.0260	.0330
		.0070	.0626	.0780	.0846	.9262	.9639	1.0015	1.0392					

DATE 17 SEP 73 TABULATED PRESSURE DATA - IA9C

AXES 07-707 IA9 OZA + S3 + T9 ORBITER FUSELAGE (RBNB05)

MACH ( 3 ) = 3.9-2 BETAT ( 5 ) = 2.261

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1444	.1475	.1518	.1539	.1562	.1555	.1546	.1581	.1732	.1958	.2259	.2711	.3204	.3953	.5124
PHI										.1644		.1421	-.1466	-.1474	-.1445
142.144									.6324						
150.144									.8784						
157.144									.9484						
162.144															
165.144															
169.144															
172.144															
181.144															
X/LB	.9673	.9625	.7384	.7959	.6283	.8863	.9252	.9639	1.1415	1.1392					

PHI	.144	-.1319	-.1322	-.1360	-.1454	-.1294	-.1454	-.1555	-.1654	-.1774	-.1934
40.144											
70.144											
90.144											
105.144											
110.144											
120.144											
135.144											
150.144											
165.144											
180.144											

MACH ( 3 ) = 3.9-2 BETAT ( 6 ) = 4.450

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1444	.1475	.1518	.1539	.1562	.1555	.1546	.1581	.1732	.1958	.2259	.2711	.3204	.3953	.5124
PHI															
142.144									.1030		.0534	.0821	.0804	.0434	.0444
150.144									.0784		.0374	.0414	.0544	.0484	.0344
157.144									.0344		.0194	.0114	.0544	.0484	.0344
162.144									.0344		.0164				
165.144									.0254		.0254	-.1214	-.1524	-.1164	-.1164
169.144									-.1114		-.0114	-.1544	-.0644	-.1554	-.1154
172.144									.0164		.0164	-.1584	-.1664	-.1664	-.1474
181.144									.0634						
182.144									.5664						
183.144									.8964						
189.144									.8664						
172.144									.9124						

.9370





AMES 07-707 1A9 OEA + S3 + T9 ORBITER FUSELAGE

(P8NBUS)

MACH ( 3 ) = 3.902

BETAT ( 7 ) = 6.660

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.5073	.6026	.7300	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI										
70.000	-0.520	-0.680	-0.630	-0.540	-0.260	-0.420	-0.430			
90.000	-0.330	-0.440	-0.390	-0.270	-0.260	-0.430				
105.000										
110.000										
120.000	-0.330	-0.330	-0.770	-0.310	-0.330	-0.610	-0.330	-0.480		
135.000										
150.000	-0.650	-0.650	-0.620	-0.270	-0.240	-0.240				
165.000	-0.700	-0.820	-0.650	-0.310	-0.310	-0.340				
180.000	-0.690	-0.720	-0.500							

MACH ( 3 ) = 3.902

BETAT ( 7 ) = 6.660

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.0000	.0073	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
PHI										
20.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
25.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
40.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
55.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
70.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
90.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
120.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
142.000										
150.000	.4300	.1410	.1350	.1420	.7430					
157.000										
162.000										
165.000										
169.000										
172.000										
180.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

PHI

X/LB	.0000	.0073	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.0000										
40.000	-0.0790	-0.0790	-0.0990	-0.1340	-0.0710	-0.0810	-0.0910			
70.000	-0.0980	-0.0980	-0.0970	-0.0210	-0.0410	-0.0430				
90.000	-0.0970	-0.0970	-0.0460	-0.0270	-0.0430	-0.0520				
115.000										
110.000										
120.000	-0.1520	-0.0920	-0.0370	-0.0190	-0.0580	-0.0610	-0.0640	-0.0640		
135.000										
150.000	-0.0690	-0.0990	-0.0690	-0.0410	-0.0310	-0.0310	-0.0370	-0.0370		



DATE 17 SEP 73

TABULATED PRESSURE DATA - 1A9C

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AMES 87-717 1A9 OCA + S3 + T9 ORBITER FUSELAGE

(RBNDU:3)

MACH ( 3 ) = 3.512      BETAT ( 8 ) = 8.861

SECTION ( 1 ) ORBITER FUSELAGE	DEPENDENT VARIABLE CP									
X/LB	.5873	.6626	.7381	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392

PM:

165.1441

-.1991

-.0130

-.0310

-.0550

-.0721

-.1141

-.0951

-.0781















## AVES 87-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RBMUS)

MACH ( 1 ) = 2.499      BETAT ( 0 ) = 0.940

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0440	.0473	.0490	.0339	.0402	.0355	.0364	.0381	.0732	.0959	.0239	.0711	.0204	.0953	.0120
PHI															
140	1.4340	.9880	.3080	.0160	.0300	.0700	.0270		.0910		.0330	.0320	-.0070	-.0480	-.0910
20.140			.3720	-.0020	.0280	.0470			.0490		.0190				
40.140			.3320	-.0030	-.0080	-.0430			.0260		-.0010	-.0030	-.0140	-.0140	-.0250
59.140			.3140	-.0030	-.0410	-.0230			.0180		.0310				
70.140			.2590	-.0030	-.0320	-.0210			.0190		.0480	-.0410	-.0480	-.0070	-.0080
90.140		.7920	.2910	-.0030	-.0160	-.0290			-.0030		-.0030	-.0080	-.0070	-.0070	-.0070
120.140			.2980	.0040	-.0010	-.0400			-.0120	-.0080	-.0080	-.0070	-.0080	-.0080	-.0080
140.140			.3400	.0080	.0030	.0190			.0120		-.0020	-.0040	-.0040	-.0040	-.0040
157.140								.5300							
180.140									.5320						
199.140									.5900						
199.140															
172.140							.7800								
180.140		1.4140	1.0290	.4130	.0720	.0090	.0010		.0090						
X/LB	.9073	.9028	.7900	.7050	.6000	.5000	.4000	.3000	1.0000	1.0000					
PHI															
140	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080
20.140			-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080
40.140			-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080
60.140			-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080
80.140			-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080
100.140			-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080
120.140			-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080
139.140			-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080
150.140			-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080
160.140			-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080	-.0080

MACH ( 2 ) = 2.999      BETAT ( 1 ) = -0.999

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0440	.0473	.0490	.0339	.0402	.0355	.0364	.0381	.0732	.0959	.0239	.0711	.0204	.0953	.0120
PHI															
140	1.3020	.8340	.3480	.0410	.0290	.0490	.0490		.0400		.0720	.0400	-.0080	-.0080	-.0080
20.140			.4390	.0610	.0720	.0720			.0490		.0490				
40.140			.9400	.0430	.0930	.0490			.0220		.0220	.0220	.0220	.0220	.0220
59.140			.8090	.0230	.0430	.0210			.0490		.0230				
70.140			.7400	.0420	.0700	.0210			.0290		.0290	.0290	.0290	.0290	.0290
90.140		1.2880	.7900	.0400	.0200	.0480			.0290		.0290	.0290	.0290	.0290	.0290
120.140			.7400	.0210	.0220	.0490			.0490		.0490	.0490	.0490	.0490	.0490





DA. L. 17 SEP 73 TABULATED PRESSURE DATA - IA9C

AVES 87-74.7 1A9 OEA + S3 + T9 ORBITER FUSELAGE

(R086L6)

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.274

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB	.5073	.6828	.7300
		.7009	.8203
		.8048	.9202
		.9639	1.1015
		1.1092	
PHI			
71.1440	-1.1421	-1.1480	-1.0310
			-1.1215
			-1.0370
			-1.0321
91.1440	-1.0344	-1.0311	-1.0370
			-1.1430
			-1.1440
			-1.1411
115.1440			.0370
			.0314
115.1440	-1.0290	-1.1480	.1970
			-1.1210
			.1440
			.1410
121.1440		.2390	-1.1450
			-1.0350
			-1.0280
135.1440	-1.0290	-1.0330	.1480
			-1.1450
			.1440
151.1440	-1.0200	.1480	.1080
			.1080
155.1440	-1.0200	.1480	.1080
			.1080
169.1440	-1.0710	-1.0400	-1.0470

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.114

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB	.5073	.5108	.5399
		.5612	.6355
		.6946	.7946
		.8203	.9202
		.9639	1.1015
		1.1092	
PHI			
71.1440	1.5090	.0440	.3300
			.1090
			.1020
21.1440		.3810	.1360
			-1.1410
			.1010
41.1440		.4810	.1360
			.1090
			.1090
59.1440		.5270	.1130
			.1090
			.1090
71.1440		.5540	.1130
			.1090
			.1090
91.1440	1.1300	.5790	.1390
			.1090
			.1090
121.1440		.5710	.1910
			.1410
142.1440		.5910	.1890
			.2270
151.1440			.0740
157.1440			.7890
162.1440			.7890
165.1440			.6940
169.1440	1.5090	1.1250	.4890
			.2110
			.1940
			.2010
172.1440			.6940
181.1440	.5073	.6828	.7300
			.7009
			.8203
			.9202
			.9639
			1.1015
			1.1092
X/LB			

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB			
PHI			
71.1440	-1.0470		
			-1.1070
			-1.1170
81.1440	-1.0340	.0430	.1040
			-1.1480
			-1.1480
91.1440	-1.0340	-1.0790	-1.0740
			-1.1420
			-1.1420
101.1440	-1.0420	-1.0820	-1.0490
			-1.0160
			-1.0220
115.1440		.1050	-1.0460
			-1.0170
			-1.0210
135.1440	-1.0340	-1.0400	.1590
			-1.0390
			-1.0390
121.1440		.2010	.2470
			-1.0170
			-1.0310
135.1440	-1.0290	-1.0320	.1480
			-1.0420
			-1.0210
151.1440			.1020
			-1.0390
			-1.0390





## AMES 87-717 IAS ORA + S3 + 19 ORBITER FUSELAGE

(AS-BUS)

MAC ( 2 ) = 2.999      BETAT ( 7 ) = 5.520

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

PLS	(.000)	(.075)	(.150)	(.225)	(.300)	(.375)	(.450)	(.525)	(.600)	(.675)	(.750)	(.825)	(.900)	(.975)	(1.000)
MAC															
162.000															
170.000															
187.000															
192.000															
195.000															
199.000															
201.000															
207.000															
MAC															
162.000															
170.000															
187.000															
192.000															
195.000															
199.000															
201.000															
207.000															

MAC

1.4920

1.5670

1.6420

1.7170

1.7920

1.8670

1.9420

2.0170

2.0920

2.1670

2.2420

2.3170

2.3920

2.4670

2.5420

2.6170

2.6920

2.7670

2.8420

2.9170

2.9920

3.0670

3.1420

3.2170

3.2920

3.3670

3.4420

3.5170

3.5920

3.6670

3.7420

3.8170

3.8920

3.9670

4.0420

MAC ( 2 ) = 2.999      BETAT ( 6 ) = 5.520

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

PLS	(.000)	(.075)	(.150)	(.225)	(.300)	(.375)	(.450)	(.525)	(.600)	(.675)	(.750)	(.825)	(.900)	(.975)	(1.000)
MAC															
162.000															
170.000															
187.000															
192.000															
195.000															
199.000															
201.000															
207.000															
MAC															
162.000															
170.000															
187.000															
192.000															
195.000															
199.000															
201.000															
207.000															

MAC

1.4920

1.5670

1.6420

1.7170

1.7920

1.8670

1.9420

2.0170

2.0920

2.1670

2.2420

2.3170

2.3920

2.4670

2.5420

2.6170

2.6920

2.7670

2.8420

2.9170

2.9920

3.0670

3.1420

3.2170

3.2920

3.3670

3.4420

3.5170

3.5920

3.6670

3.7420

3.8170

3.8920

3.9670

4.0420





AMES 07-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RBNU6)

MACH ( 3 ) = 3.302 BETAT ( 1 ) = -6.750

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB			
	.5973	.6826	.7390
	.7069	.8283	.8048
	.9262	.9639	1.1415
	1.0392		
PHI			
70.1440	-.1480	-.0390	-.1120
90.1440	.1480	-.0190	.0390
110.1440		.0590	.0780
130.1440		.0990	.0620
150.1440	-.1410	-.0270	.3310
170.1440		.2190	.0740
190.1440	-.1470	.0380	.2750
	-.1420	.1480	.0210
	-.1560	-.0910	-.0170
			-.0430
			-.1480
			.1150
			.0340

MACH ( 3 ) = 3.302 BETAT ( 2 ) = -6.550

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB			
	.1648	.1073	.1188
	.0339	.0602	.1355
	.1516	.1581	.1792
	.1998	.2259	.2711
	.3210	.3953	.5120
PHI			
20.1440	.0000	.0000	.0000
40.1440	.4210	.0280	-.0070
60.1440	.5690	.1110	-.0190
80.1440	.6120	.1810	.0770
100.1440	.7040	.2570	.1160
120.1440	.7310	.2310	.1290
140.1440	.6870	.2580	.1410
160.1440	.6100	.2270	.1290
180.1440		.2140	.1560
200.1440		.2630	.2280
220.1440		.2630	.2880
240.1440		.2630	.2880
260.1440		.2630	.2880
280.1440		.2630	.2880
300.1440		.2630	.2880
320.1440		.2630	.2880
340.1440		.2630	.2880
360.1440		.2630	.2880
380.1440		.2630	.2880
400.1440		.2630	.2880
420.1440		.2630	.2880
440.1440		.2630	.2880
460.1440		.2630	.2880
480.1440		.2630	.2880
500.1440		.2630	.2880
520.1440		.2630	.2880
540.1440		.2630	.2880
560.1440		.2630	.2880
580.1440		.2630	.2880
600.1440		.2630	.2880
620.1440		.2630	.2880
640.1440		.2630	.2880
660.1440		.2630	.2880
680.1440		.2630	.2880
700.1440		.2630	.2880
720.1440		.2630	.2880
740.1440		.2630	.2880
760.1440		.2630	.2880
780.1440		.2630	.2880
800.1440		.2630	.2880
820.1440		.2630	.2880
840.1440		.2630	.2880
860.1440		.2630	.2880
880.1440		.2630	.2880
900.1440		.2630	.2880
920.1440		.2630	.2880
940.1440		.2630	.2880
960.1440		.2630	.2880
980.1440		.2630	.2880
1000.1440		.2630	.2880

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB			
	.5973	.6826	.7390
	.7069	.8283	.8048
	.9262	.9639	1.1415
	1.0392		
PHI			
40.1440	-.0390		
60.1440	-.0060		
80.1440	-.1620	-.0320	.0430
100.1440	-.0120	-.0340	.0190
120.1440		.0370	.0440
140.1440		.0370	.0340
160.1440	-.0210	-.0330	.0370
180.1440		.2070	.0360
200.1440	.1970	.2470	.0460
220.1440	-.0210	-.0290	.0420
240.1440	-.0210	-.0290	.0420
260.1440	-.0290	-.0290	.0420
280.1440	-.0290	-.0290	.0420
300.1440	-.0290	-.0290	.0420
320.1440	-.0290	-.0290	.0420
340.1440	-.0290	-.0290	.0420
360.1440	-.0290	-.0290	.0420
380.1440	-.0290	-.0290	.0420
400.1440	-.0290	-.0290	.0420
420.1440	-.0290	-.0290	.0420
440.1440	-.0290	-.0290	.0420
460.1440	-.0290	-.0290	.0420
480.1440	-.0290	-.0290	.0420
500.1440	-.0290	-.0290	.0420
520.1440	-.0290	-.0290	.0420
540.1440	-.0290	-.0290	.0420
560.1440	-.0290	-.0290	.0420
580.1440	-.0290	-.0290	.0420
600.1440	-.0290	-.0290	.0420
620.1440	-.0290	-.0290	.0420
640.1440	-.0290	-.0290	.0420
660.1440	-.0290	-.0290	.0420
680.1440	-.0290	-.0290	.0420
700.1440	-.0290	-.0290	.0420
720.1440	-.0290	-.0290	.0420
740.1440	-.0290	-.0290	.0420
760.1440	-.0290	-.0290	.0420
780.1440	-.0290	-.0290	.0420
800.1440	-.0290	-.0290	.0420
820.1440	-.0290	-.0290	.0420
840.1440	-.0290	-.0290	.0420
860.1440	-.0290	-.0290	.0420
880.1440	-.0290	-.0290	.0420
900.1440	-.0290	-.0290	.0420
920.1440	-.0290	-.0290	.0420
940.1440	-.0290	-.0290	.0420
960.1440	-.0290	-.0290	.0420
980.1440	-.0290	-.0290	.0420
1000.1440	-.0290	-.0290	.0420

AMES 87-707 IAG OEA + S3 + T9 ORBITER FUSELAGE

(RBNB1.6)

MACH (3) = 3.502 BETAT (2) = -6.550

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

20.000 1.0000 1.0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 1.0000 1.0000

PHI

40.000 1.0000 1.0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

MACH (3) = 3.502 BETAT (3) = -4.340

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB 1.0000 1.0000 1.0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

PHI

20.000 1.0000 1.0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

PHI

40.000 1.0000 1.0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

PHI

40.000 1.0000 1.0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

AMES 07-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(R08B0J6)

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.150

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0612	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
1.00	.0000	.0000	.0000	.0440	.0070	.0090		.0480		.0590	.0840	.0720	.0710	.0710	.0110
20.000	.4800	.0600	.0070	.0070	.0070	.0090		.0260		.0800	.0840	.0420	.0130	.0400	
40.000	.5100	.0690	.0440	.0840		.0840		.0250		.0960	.0840	.0420	.0130	.0400	
55.000	.5300	.1190	.0760	.0760		.0760		.0920		.0960	.0350	.0490	.0160	.0160	
70.000	.5680	.1270	.0760	.0790		.0790		.0860		.0890	.0440	.0440	.0180	.0180	
90.000	.5920	.1300	.0860	.0940		.0940		.0930		.0790	.0180	.0370	.0230	.0130	
120.000	.5830	.1930	.1480	.1530		.1530		.0890		.0450	.0230	.0370	.0380	.0290	
142.000	.5560	.2010	.1830	.2150		.2150	.0880	.6720							
157.000								.8190							
162.000								.8200							
165.000								.8200							
169.000															
172.000	.0000	.0000	.4690	.2090	.0070	.2210	.9250	1.0770							
180.000	.5973	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

PHI

1.00	-.0280														
40.000	-.0130	-.0310	.0660	.0240	.0010	-.0240		-.0690		-.0730					
70.000	-.0480	-.0680	-.0810	-.0920	-.0300	-.0380	-.0410			-.0890					
90.000	-.0360	-.0570	-.0490	-.0290	-.0170	-.0130	-.0170								
105.000			.0000	-.0040	-.0030	-.0090	-.0170								
110.000			-.0360	-.0420	.0390	.0280	-.0070	-.0020							
120.000			.2340	.2210	-.0160	-.0360	-.0250								
135.000			.0340	.0340	-.0380	-.0270	-.0180								
150.000			-.0290	-.0360	.0340	-.0270	-.0180								
165.000			-.0270	.0100	.0940	.0880	.0370								
180.000	-.0400	-.0390	-.0290												

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.280

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0612	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
1.00	.0000	.0000	.0000	.0480	.0070	.0070		.0490		.0600	.0830	.0710	.0700	.0700	.0120
20.000	.4470	.0540	.0010	.0090		.0090		.0190		.0450	.0450	.0530	.0180	.0170	
40.000	.4720	.0720	.0180	.0220		.0220		.0390		.0160	.0480	.0530	.0180	.0170	
55.000	.4750	.0750	.0430	.0390		.0390		.0320		.0340	-.0120	-.0310	-.0490	-.0220	
70.000	.4480	.0680	.0290	.0400		.0400		.0340		.0340	-.0320	-.0430	-.0370	-.0250	
90.000	.4800	.0790	.0330	.0440		.0440		.0320		.0320	-.0470	-.0490	-.0460	-.0360	
120.000	.4770	.1340	.0960	.0980		.0980		.0690		.0320	-.0470	-.0490	-.0460	-.0360	







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AVES 07-707 IAS OZA + S3 + T9 ORBITER FUSELAGE

(RBNS146)

MACH ( 3 ) = 3.542

BETAT ( 0 ) = 8.895

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5073 .6626 .7304 .7869 .8283 .8648 .9202 .9639 1.0215 1.0392

PHI

189.1444

-.1170

-.1780

-.1435

-.1635

-.1621

189.1444

-.1164

-.1101

-.1435

-.1635

-.1621





## AMES 67-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNBUL7)

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.310

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0100	.0075	.0188	.0339	.0602	.1355	.1906	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
PHI															
1.3780	.9110	.4350	.1430	.0950	.1140	.1230	.1460	.1620	.0230	.0360	.0460	.0230	.0360	.0460	.0630
20.1000	.5070	.0790	.0950	.2260	.1410	.1410	.1440	.1690	.0190	.0290	.1690	.0190	.0290	.1690	.1290
40.1000	.6170	.1560	.1330	.1790	.1580	.1580	.1580	.1690	.0190	.0290	.1690	.0190	.0290	.1690	.1290
55.1000	.6440	.1940	.1640	.3580	.2710	.2710	.1920	.1920	.0190	.0290	.1920	.0190	.0290	.1920	.1490
70.1000	.6550	.1920	.1390	.2540	.3160	.3160	.2460	.2460	.0190	.0290	.2460	.0190	.0290	.2460	.1890
90.1000	.6420	.1850	.1330	.2130	.3010	.3010	.2460	.2460	.0190	.0290	.2460	.0190	.0290	.2460	.1890
120.1000	.5920	.2020	.1720	.2340	.3560	.3560	.2120	.2120	.0190	.0290	.2120	.0190	.0290	.2120	.1490
142.1000					.1600	.1600									
150.1000	.5230	.1680	.1740	.2460	.7170	.7170	.0180	.0180	.0310	.0420	.0180	.0310	.0420	.0180	.0560
157.1000					.8390	.8390									
162.1000					.7290	.7290									
165.1000					.6490	.6490									
169.1000															
172.1000	1.3780	.9550	.3770	.1940	.2160	.7770	.8480	.1150	.1170	.1680	.1320	.1680	.1320	.1380	
180.1000	.5870	.6826	.7300	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

PHI  
1.000  
-0.6000

40.1000	.0030	.0470	.1870	.1290	.0820	-.0350	-.1330	-.1080							
70.1000	-.0530	-.0650	-.0530	-.0320	-.0160	-.0320	-.0350	-.1340							
90.1000	-.0410	-.0470	-.0260	.0510	.0230	.0460	-.0110								
110.1000		.0780	.1050	.0250	.0420	-.0220									
120.1000	-.0580	-.0630	.3030	.2690	.0960	-.0440	-.0490	-.0410							
135.1000		.1870	.2250	-.0420	-.0860	-.0670									
150.1000	-.0620	-.0660	.0110	.0310	-.1130	-.0750	-.0410								
185.1000	-.0590	.0280	.0870	.0480	.0960	.0120									
180.1000	-.0980	-.1010	-.0580												

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.190

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1906	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
PHI															
1.3950	.8980	.4130	.0170	.0710	-.0450	.1450	.1650	.1610	.0620	.0120	.0950	.0620	.0120	.0950	.0790
20.1000	.4730	.0390	.0940	.0940	-.0460	.1620	.0650	.0650							
40.1000	.5660	.1080	.1020	.1360	.1770	.1770	.1670	.1670	.0210	.0430	.1670	.0210	.0430	.1670	.1570
55.1000	.5040	.1390	.1110	.2730	.2320	.2320	.1660	.1660	.0540	.0230	.1660	.0540	.0230	.1660	.1380
70.1000	.5820	.1360	.0990	.1620	.2840	.2840	.2190	.2190	.0540	.0230	.2190	.0540	.0230	.2190	.1680
90.1000	1.0870	.5730	.1330	.0920	.1530	.2390	.2590	.2590	.0520	.0180	.2590	.0520	.0180	.2590	.1920
120.1000	.5440	.1660	.1360	.1820	.2730	.2730	.1560	.1560	.0410	.0370	.1560	.0410	.0370	.1560	.1490







## AMES 87-707 IA9 O2A + S3 + T9 ORBITER FUSELAGE (RBND:7)

MACH ( 1 ) = 2.498

BETA ( 6 ) = 4.291

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB .3873 .6626 .7381 .7869 .8283 .8948 .9262 .9639 1.1015 1.1392

PHI

165.1440 -.11521 -.1271 .2130 .1121 .1441 .1829  
180.1440 -.11730 -.11681 -.11540

MACH ( 1 ) = 2.498

BETA ( 7 ) = 6.410

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB .1441 .1441 .1475 .1484 .1339 .1162 .1335 .1516 .1581 .1732 .1914 .2259 .2711 .3211 .3953 .5121

PHI

.1441 1.3680 .7991 .4281 .1351 .1771 .1761 .1141 .1141 .1370 .1370 .1491 .1491 .1621 .1621 .1851  
20.1440 .4121 .1331 .1441 .1441 .1141 .1141 .1141 .1141 .1141 .1141 .1141 .1141 .1141 .1141 .1141  
40.1440 .3561 .1111 .1251 .1151 .1151 .1151 .1151 .1151 .1151 .1151 .1151 .1151 .1151 .1151 .1151  
55.1440 .3511 .1111 .1221 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131  
71.1440 .3111 .1031 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131  
91.1440 .7771 .2731 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131  
121.1440 .3151 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131  
142.1440 .3481 .1171 .1171 .1171 .1171 .1171 .1171 .1171 .1171 .1171 .1171 .1171 .1171 .1171 .1171  
157.1440 .6541 .6541 .6541 .6541 .6541 .6541 .6541 .6541 .6541 .6541 .6541 .6541 .6541 .6541 .6541  
162.1440 .5391 .5391 .5391 .5391 .5391 .5391 .5391 .5391 .5391 .5391 .5391 .5391 .5391 .5391 .5391  
169.1440 .6431 .6431 .6431 .6431 .6431 .6431 .6431 .6431 .6431 .6431 .6431 .6431 .6431 .6431 .6431  
172.1440 .8211 .8211 .8211 .8211 .8211 .8211 .8211 .8211 .8211 .8211 .8211 .8211 .8211 .8211 .8211  
181.1440 1.3680 .9330 .3711 .1411 .1471 .1951 .7281 .7281 .7281 .7281 .7281 .7281 .7281 .7281 .7281

X/LB .3873 .6626 .7381 .7869 .8283 .8948 .9262 .9639 1.1015 1.1392

PHI

.1440 -.11370 -.11370 -.11370 -.11370 -.11370 -.11370 -.11370 -.11370 -.11370 -.11370  
41.1440 -.11440 -.11440 -.11440 -.11440 -.11440 -.11440 -.11440 -.11440 -.11440 -.11440  
71.1440 -.11720 -.11930 -.11930 -.11930 -.11930 -.11930 -.11930 -.11930 -.11930 -.11930  
91.1440 -.11680 -.11790 -.11790 -.11790 -.11790 -.11790 -.11790 -.11790 -.11790 -.11790  
111.1440 .1151400 .1151400 .1151400 .1151400 .1151400 .1151400 .1151400 .1151400 .1151400 .1151400  
121.1440 .4350 .2741 .2230 .1670 .1920 .1920 .1920 .1920 .1920 .1920  
131.1440 .11611 .11611 .11611 .11611 .11611 .11611 .11611 .11611 .11611 .11611  
151.1440 .11040 .11040 .11040 .11040 .11040 .11040 .11040 .11040 .11040 .11040  
161.1440 .11170 .11170 .11170 .11170 .11170 .11170 .11170 .11170 .11170 .11170  
181.1440 .11110 .11110 .11110 .11110 .11110 .11110 .11110 .11110 .11110 .11110

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AMES 87-707 IAG O2A + S3 + T9 ORBITER FUSELAGE

(RBNDU7)

MACH ( 1 ) = 2.498

BETAT ( 8 ) = 8.540

DEPENDENT VARIABLE

DEPENDENT VARIABLE CP

X/LB	.0440	.1075	.1886	.0339	.0602	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
1.3480	.0670	.4114	.0240	.0480	.2320				.0720	.0290	.0210	-.0130	-.0470	-.0530	
21.1440		.3820	.0120	.0330	.1820				.0620	.0190	-.0160	-.0470	-.0530		
40.1440		.3580	-.0480	-.0010	-.0610				.0350	-.0620	-.0680	-.1140	-.1160		
55.1440		.3160	-.0090	-.0430	-.0310				.0120	.0360	-.0260	-.0590	-.0890	-.0970	
70.1440		.2580	-.0210	-.0550	-.0260				-.0170	-.0160	-.0850	-.0790	-.0840	-.0680	
90.1440	.7180	.2310	-.0610	-.0480	-.0320				-.0310	-.0880	-.0510	-.0650	-.0880	-.0570	
120.1440		.2620	-.0470	-.0260	-.0180				.0430	-.0980	-.1210	-.1550	-.1410	-.1130	-.0910
142.1440									.3480						
150.1440		.3140	.0560	.0610	.0750			.5460							
157.1440									.5720						
162.1440															
165.1440									.6280						
169.1440															
172.1440		.3650	.1340	.1420	.2150		.6380								
180.1440	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					
X/LB															
PHI															
1.0440	-.0280														
40.1440	-.0640	-.0370	-.0250	-.0830	-.1230	-.1190									
70.1440	-.0770	-.0990	-.1040	-.0620	-.0730	-.0930	-.0960								
90.1440	-.0650	-.0630	-.0660	-.0640	-.0670	-.0680	-.0680								
105.1440			-.0260	-.0720	-.0640	-.0950	-.1040								
110.1440															
120.1440	-.0770	-.0720	.0240	.0420	-.1190	-.1170	-.1050	-.1010							
135.1440			.4130	.3110	-.0710	-.0830	-.0750								
150.1440	-.1140	-.1250	-.0610	-.0530	-.0930	-.0680	-.0690								
165.1440	-.1440	-.0840	-.0810	-.0180	-.0320	-.0380	-.0220								
180.1440	-.1320	-.1250	-.0660												

MACH ( 2 ) = 2.999

BETAT ( 1 ) = -8.590

SECTION ( 1 ) ORBITER FUSELAGE

DEPENDENT VARIABLE CP

X/LB	.0440	.1075	.1886	.0339	.0602	.1355	.1976	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
1.0440	1.3980	.7910	.5980	.0360	.0130	.0480									
20.1440		.4270	.0560	.0190	.0620				.1620	.1440	.0210	.0490	-.0140	-.0220	
40.1440		.5810	.1380	.0910	.4120				.2130	.1320	.0610	.0480	.0450	.0110	
55.1440		.6610	.2130	.1990	.2230				.2820	.2820					
70.1440		.7080	.2280	.1810	.2090				.3220	.3220	.1440	.0320	.0380	.0220	
90.1440	1.8210	.7110	.2410	.1650	.2190				.3480	.3480	.1490	.0340	.0280	.0450	
120.1440		.6420	.2440	.2010	.2360				.1620	.1620	.0360	.0360	-.0480	-.0220	









## AMES 67-7U7 IAS OBA + S3 + T9 ORBITER FUSELAGE

(R08007)

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.115

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5873 .6626 .7380 .7869 .8283 .8848 .9262 .9639 1.0015 1.0392

PHI

165.144 -.1430 .1220 .1160 .1550 .1440 -.1170  
180.144 -.1460 -.0450 -.1420

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.210

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .1610 .1075 .1188 .1339 .1612 .1355 .1516 .1591 .1732 .1958 .2259 .2711 .3210 .3953 .5120

PHI

.000 1.4650 .8141 .3800 .0150 .1414 -.1260 .1620  
20.000 .3650 .0140 .1414 -.1350 .1030  
40.000 .4060 .0140 .0030 -.1000 .1030 .1430 .1430  
55.000 .4070 .0190 .0070 .1500 .1410  
70.000 .4010 .0300 -.1020 .1310 .1220  
90.000 .4070 .0500 .1030 .1310 .1470  
120.000 .4220 .1090 .1610 .1690 .1710  
142.000 .4300 .1270 .1170 .1540 .4960  
150.000 .7460  
157.000 .6560  
162.000 .6950  
165.000 .6110  
169.000 .9140  
172.000 .6110  
180.000 1.0230 .4050 .1630 .154 .1910 .9140

X/LB .5873 .6626 .7380 .7869 .8283 .8848 .9262 .9639 1.0015 1.0392

PHI

.000 -.1080  
40.144 -.1720  
70.144 -.0310 .1060 -.1120 .0530 -.1010  
90.144 -.0770 .1860 .0700 .0600 .0910 .0660  
105.144 -.0630 .1770 .1660 .1530 .1600 .1500  
110.144 -.1280 .0900 .1630 .1620 .1530  
120.000 .1040 .1040 .0370 .1630 .1660 .1470  
135.144 .1830 .2130 .1630 .1670 .1320  
150.144 .1620 .1960 .1820 .1210 .1090 .1430  
165.144 .1520 .1370 .1260 .1940 .1490 .1150  
180.144 .1440 .1440

AMES 67-707 IA9 OBA + 83 + T9 ORBITER FUSELAGE

(RDND077)

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.370

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.0188	.0339	.0612	.1355	.1516	.1581	.1732	.1938	.2259	.2711	.3214	.3953	.5121
PHI															
.1440	1.4420	.8350	.3930	.0390	.0210	-.0170			.1280		.0960	.1684	.1683	.1284	-.1273
20.1440			.3910	.0320	.0130	-.0110			.1460		.1240	.1460	.1460	.1240	-.1273
40.1440			.4030	.0380	.0480	-.0170			-.0190		.1460	.1460	.1460	.1240	-.1273
55.1440			.3840	.0320	-.0110	.0220			-.0120		.1180	.1180	.1180	.1240	-.1273
70.1440			.3540	.0150	-.0180	.0140			.0120		.0180	-.0410	-.0220	-.0370	-.1273
90.1440			.3870	.0210	-.0180	.0140			-.0210		.0190	-.0420	-.0730	-.0340	-.1273
120.1440			.3500	.0710	.0370	.0420			.0310		-.0210	-.0910	-.0890	-.0780	-.1495
142.1440			.3910	.1120	.1140	.1390			.4390		-.0570	-.0990	-.0910	-.0870	-.0530
150.1440							.7010								
157.1440									.6420						
165.1440									.6840						
169.1440															
172.1440						.7450			.9110						
180.1440	1.4420	1.0290	.3940	.1610	.1490	.1830			.9110						
X/LB	.3673	.6626	.7580	.7869	.8283	.8848	.9282	.9639	1.0415	1.0592					
PHI															
.1600	-.0580														
40.1600	-.0080	-.0370	-.0140	-.0390	-.0640	-.1110			-.1110						
70.1600		-.0790	-.0680	-.0710	-.0830	-.0870			-.0710						
90.1600		-.0680	-.0780	-.0580	-.0540	-.0650			-.0780						
105.1600				-.0190	-.0400	-.0710			-.0790						
110.1600									-.0680						
120.1600		-.0380	-.0480	.0380	-.0430	-.0990			-.0980						
135.1600				.3290	.2410	-.0680			-.0680						
150.1600		-.0360	-.0340	.0910	.2950	-.0430			-.0270						
165.1600		-.0470		-.0290	.1480	.1120			.0410						
180.1600		-.0810	-.0680	-.0590											

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.530

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1475	.0188	.0339	.0612	.1355	.1516	.1581	.1732	.1938	.2259	.2711	.3214	.3953	.5121
PHI															
.1600	1.4170	.8160	.3880	.0270	.0130	.0270			.1970		.0840	.0340	.0440	.0110	-.0320
20.1600			.3810	.0210	.0480	-.0420			.0860		.0890	.0340	.0440	.0110	-.0320
40.1600			.3550	.0210	-.0270	-.0180			-.0470		.0170	-.0170	-.0440	-.0520	-.0810
55.1600			.3330	.0110	-.0210	-.0620			-.0470		.0110	-.0170	-.0440	-.0520	-.0810
70.1600			.2970	-.0570	-.0360	-.0680			-.0430		.0130	-.0470	-.0380	-.0430	-.0810
90.1600			.2940	-.0560	-.0480	-.0470			-.0330		-.0280	-.0730	-.0840	-.0590	-.0870
120.1600			.3240	.0480	.0170	.0230			-.0330		-.0450	-.0140	-.0140	-.0880	-.0440





AVES 87-707 1A9 02A + S3 + T9 ORBITER FUSELAGE (RBNBU7)

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.75U

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB	.5073	.6626	.7380
		.7869	.8283
		.8946	.9262
		.9639	1.1415
		1.1415	1.14392
PHI			
7U.14U	-0.0240	-0.0520	-0.0430
9U.14U	-0.0130	-0.0310	-0.0220
11U.14U	-0.0240	-0.0360	-0.0470
13U.14U	-0.0290	-0.0390	-0.0520
15U.14U	-0.0240	-0.0340	-0.0470
17U.14U	-0.0240	-0.0340	-0.0470
19U.14U	-0.0110	-0.0190	-0.0280

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.54U

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB	.0000	.0073	.0166
		.0339	.0612
		.1355	.1916
		.1732	.1958
		.2259	.2711
		.3210	.3933
		.5120	.5120
PHI			
.00U	.0000	.0000	.0240
20.00U	.4000	.0390	.0460
40.00U	.5370	.1030	.1490
55.00U	.5570	.1160	.1160
70.00U	.6530	.1870	.1220
90.00U	.6730	.2180	.1300
120.00U	.6160	.2220	.1750
142.00U	.5440	.1920	.1730
150.00U			.2160
157.00U			.8240
162.00U			
165.00U			
169.00U			
172.00U			.7680
180.00U	.0000	.0000	.1650
		.7869	.8283
		.8946	.9262
		.9639	1.1415
		1.1415	1.14392

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.54U

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB	.0000	.0073	.0166
		.0339	.0612
		.1355	.1916
		.1732	.1958
		.2259	.2711
		.3210	.3933
		.5120	.5120
PHI			
.00U	-0.0460	-0.0460	-0.0740
40.00U	-0.0140	-0.0370	-0.0370
70.00U	-0.0370	-0.0480	-0.0410
90.00U	-0.0290	-0.0480	-0.0230
115.00U	-0.0290	-0.0240	-0.0480
110.00U	-0.0410	-0.0480	-0.0290
125.00U	-0.0370	-0.0480	-0.0270
135.00U	-0.0370	-0.0480	-0.0310
150.00U	-0.0340	-0.0410	-0.0450

## AMES 87-707 IAS ORA + S3 + T9 ORBITER FUSELAGE

(RBNE07)

MACH ( 3 ) = 3.542 BETAT ( 2 ) = -6.340

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5073 .6626 .7300 .7060 .8203 .6048 .9262 .9639 1.1415 1.1092

PHI

165.140 -0.0300 .1410 .0380 .1150 .0580 -0.1410  
180.140 -0.1680 -0.1820 -0.0680

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.340

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .0000 .0075 .0186 .0339 .0612 .1355 .1916 .1581 .1732 .1958 .2299 .2711 .3210 .3955 .5120

PHI

.0000 .0000 .0000 .0070 .0110 -0.1470 .1620 .1620 .1620 .1620 .1620 .1620 .1620 .1620 .1620  
20.140 .4320 .0450 .1120 .1220 .1220 .1220 .1220 .1220 .1220 .1220 .1220 .1220 .1220 .1220  
40.140 .5170 .1010 .0540 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030  
55.140 .5360 .1350 .1610 .1610 .1610 .1610 .1610 .1610 .1610 .1610 .1610 .1610 .1610 .1610  
70.140 .5920 .1510 .1510 .1680 .1680 .1680 .1680 .1680 .1680 .1680 .1680 .1680 .1680 .1680  
90.140 .6000 .1600 .1680 .1680 .1680 .1680 .1680 .1680 .1680 .1680 .1680 .1680 .1680 .1680  
120.140 .5680 .1940 .1450 .1610 .1610 .1610 .1610 .1610 .1610 .1610 .1610 .1610 .1610 .1610  
142.140 .5160 .1840 .1990 .1970 .1970 .1970 .1970 .1970 .1970 .1970 .1970 .1970 .1970 .1970  
150.140 .8440 .7480 .7270 .7270 .7270 .7270 .7270 .7270 .7270 .7270 .7270 .7270 .7270 .7270  
165.140 .7900 .7900 .7900 .7900 .7900 .7900 .7900 .7900 .7900 .7900 .7900 .7900 .7900 .7900  
180.140 .0000 .4110 .1690 .1520 .1780 .1780 .1780 .1780 .1780 .1780 .1780 .1780 .1780 .1780  
172.140 .5073 .6626 .7300 .7060 .8203 .6048 .9262 .9639 1.1415 1.1092

X/LB

PHI

.0000 -0.0400 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000  
40.140 -0.0180 .0840 .0730 .1620 .1670 .1670 .1670 .1670 .1670 .1670 .1670 .1670 .1670 .1670  
70.140 -0.0510 -0.0740 -0.1670 -0.1580 -0.1230 -0.1280 -0.1280 -0.1280 -0.1280 -0.1280 -0.1280 -0.1280 -0.1280 -0.1280  
90.140 -0.0420 -0.0800 -0.0510 -0.0200 -0.1070 -0.0380 -0.0380 -0.0380 -0.0380 -0.0380 -0.0380 -0.0380 -0.0380 -0.0380  
110.140 .1150 .1470 .1410 .1440 .1440 .1440 .1440 .1440 .1440 .1440 .1440 .1440 .1440 .1440  
120.140 .1040 .1260 .1300 .1060 .1060 .1060 .1060 .1060 .1060 .1060 .1060 .1060 .1060 .1060  
130.140 .1290 .1800 .1800 .1380 .1380 .1380 .1380 .1380 .1380 .1380 .1380 .1380 .1380 .1380  
150.140 .1440 .1470 .1470 .1420 .1420 .1420 .1420 .1420 .1420 .1420 .1420 .1420 .1420 .1420  
165.140 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030 .1030  
180.140 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000









AMES 07-707 1A9 02A + 53 + 79 ORBITER FUSELAGE

(RBNDJ7)

MACH (3) = 3.512 BETAT (7) = 6.681

## SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392
PHI										
70.1440	-.0790	-.0694	-.0610	-.0740	-.0580	-.0680	-.0680	-.0660		
90.1440	-.0660	-.0760	-.0690	-.0550	-.0550	-.0640	-.0640	-.0640		
115.1440			-.0230	-.0540	-.0640	-.0730	-.0710			
131.1440								-.0730		
125.1440	-.0440	-.0540	.0310	-.0110	-.0790	-.0690	-.0730	-.0670		
135.1440			.2850	.2180	-.0350	-.0540	-.0520			
150.1440	-.0720	-.0790	-.0280	-.0690	-.0900	-.0390	-.0320			
165.1440	-.0880	-.0630	-.0410	-.0480	-.0210	-.0210	-.0520			
180.1440	-.1120	-.0870	-.0730							

MACH (3) = 3.512 BETAT (8) = 8.851

## SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0812	.1355	.1516	.1581	.1732	.1936	.2239	.2711	.3214	.3933	.5121
PHI															
140.1440	.0000	.0440	.0440	.0420	-.0180	.0410			.1510	.0790	.0370	.0380	.0370	-.0330	
20.1440			.2880	-.0110	-.0240	.0320			.0910	.0410					
40.1440			.2880	-.0130	-.0380	.0110			-.0180	-.0340	-.0330	-.0360	-.0740	-.0850	
95.1440			.2930	-.0220	-.0330	-.0230			-.0110	-.0170					
70.1440			.2450	-.0230	-.0430	-.0220			-.0110	-.0190	-.0540	-.0590	-.0590	-.0540	
90.1440			.0400	-.0140	-.0410	-.0210			-.0440	-.0540	-.0740	-.0780	-.0680	-.0520	
120.1440			.2840	.0330	.0490	.0460			-.0190	-.0450	-.0640	-.0930	-.0860	-.0770	
142.1440			.3310	.0630	.0760	.0880			.3190	-.0490	-.0640	-.0670	-.0810	-.0740	
150.1440							.5780								
157.1440															
162.1440															
165.1440															
169.1440															
172.1440							.6070								
180.1440	.0000	.0000	.3050	.1470	.1390	.1440			.6310	-.0620	-.0640	-.0760	-.0850	-.0950	

X/LB .5873 .6626 .7380 .7869 .8283 .8848 .9262 .9639 1.0115 1.0392

PHI

X/LB	.0000	.0075	.0100	.0339	.0812	.1355	.1516	.1581	.1732	.1936	.2239	.2711	.3214	.3933	.5121
PHI															
40.1440	-.0330														
40.1440	-.0930	-.0870	-.0530	-.0630	-.0650	-.0860			-.0840						
70.1440		-.0770	-.0960	-.0740	-.0730	-.0540	-.0630	-.0590							
90.1440		-.0630	-.0710	-.0630	-.0520	-.0510	-.0570	-.0630							
115.1440			-.0320	-.0530	-.0610	-.0730	-.0730								
110.1440								-.0720							
120.1440	-.0540	-.0670	.0560	.0160	-.0740	-.0740	-.0740	-.0780	-.0690						
135.1440			.1310	.1830	-.0430	-.0430	-.0430	-.0520							
150.1440	-.0980	-.1100	-.0880	-.0650	-.0670	-.0760	-.0760	-.0760							

DATE 17 SEP 73

TABLULATED PRESSURE DATA - 1A9C

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AMES 07-7:7 1A9 OEA + S3 + T9 ORBITER FUSELAGE

(RBNDJ:7)

MACH ( 3 ) = 3.5142

BETAT ( 0 ) = 0.051

SECTION ( 1 ) ORBITER FUSELAGE

DEPENDENT VARIABLE CP

X/LB .9073 .6026 .7381 .7069 .0203 .0040 .9202 .9639 1.1115 1.1392

PHI  
105.144  
105.144

-.1131  
-.1111  
-.1061  
-.1044  
-.1022  
-.1009  
-.1011  
-.1011

AVES 07-7U7 1A9 02A + S3 + T9 ORBITER FUSELAGE (RBNU8) ( 10 MAY 73 )

REFERENCE DATA  
 SREF = 2.4110 50. FT. XMRP = 20.3300 INCHES ALPHAT = 4.1110 ORBINC = .5110  
 LTRF = 39.8490 INCHES VMRP = .1110 INCHES RUDDER = .1110 ELEVON = .1110  
 BREF = 39.8490 INCHES ZMRP = .1110 INCHES RUDFLR = .1110  
 SCALE = .0330 SCALE

MACH ( 1 ) = 2.490 BETAT ( 1 ) = -8.420

SECTION : 1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LS	.0440	.0475	.0500	.0339	.0612	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3211	.3953	.5120
PHI	.1110	1.2920	.5100	.4300	.0300	.0560	.1610	.0590	.0980	.1410	.1920	.2420	.3090	.4510	.1260
20.1000	.5280	.1860	.6510	.2350	.1850	.3750	.2870	.3240	.3650	.4510	.6940	.6950	.5830	.7430	.7610
40.1000	.6880	.7020	.6750	.2150	.1460	.2210	.2390	.4910	.1470	.1330	.2180	.1090	.1060	.1780	.7170
55.1000	1.1410														
70.1000															
90.1000															
110.1000															
120.1000															
142.1000															
150.1000															
162.1000															
165.1000															
189.1000															
172.1000															
180.1000															
X/LS	.5073	.6656	.7360	.7869	.8283	.8648	.9262	.9639	1.0115	1.0392					

PHI	.0000	-.0290	.1000	.1600	.2210	.1660	.1230	-.1480	-.0260	-.0390	-.0460	.0110	-.0240	-.0210	-.0290	.0380	.0310	.0430	.0240	-.0470	-.0190	-.0460	
40.1000																							
70.1000																							
90.1000																							
105.1000																							
110.1000																							
120.1000																							
135.1000																							
150.1000																							
165.1000																							
180.1000																							

PARAMETRIC DATA











DATE 17 SEP 73 TABULATED PRESSURE DATA - IASC  
 AMES 87-707 IAS O2A + S3 + T9 ORBITER FUSELAGE (RBN8U8)

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.374

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5875	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0415	1.0992
PMI										
165.000		-.0820		-.0320	.0890	.0640	.0150	-.0150		
180.000		-.0840	-.0850	-.0630						

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.420

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0440	.0475	.0188	.0339	.0612	.1355	.1956	.1981	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PMI															
140.000	1.3000	.9110	.4380	.0510	.0840	.0840			.1130	.1480	.1460	.1470	.1460	-.0460	-.0620
20.000		.4080	.0510	.0580	-.0440	-.0440			.1060	.1440	.1420	.1460	.1460	-.0460	-.0620
40.000		.3840	.0510	.0370	-.0260	-.0260			.1160	.1640	.1620	.1640	.1640	-.0460	-.0620
55.000		.3480	-.0170	-.0150	-.0190	-.0190			-.0470	.0640	.0640	.0640	.0640	-.0460	-.0620
70.000		.2900	-.0440	-.0420	-.0330	-.0330			.0510	.0590	.0590	.0590	.0590	-.0460	-.0620
80.000		.2680	-.0510	-.0450	-.0470	-.0470			.0310	.0640	.0640	.0640	.0640	-.0460	-.0620
120.000					-.0210	.0460			.0260	-.0620	-.0620	-.0620	-.0620	-.0460	-.0620
142.000					.0490	.0680			.3580	-.0620	-.0620	-.0620	-.0620	-.0460	-.0620
150.000					.0410	.0680		.5740							
157.000									.5310						
162.000															
165.000									.5790						
169.000															
172.000															
180.000	1.3000	.8950	.3200	.0140	.1110	.1510			.7610						

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.420

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5875	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0415	1.0992
PMI										
100.000										
40.000		.0030		-.0470	-.0660	-.0910	-.1170			
70.000		-.0290	-.0330	-.0160	-.0690	-.0910	-.1010	-.0690		
90.000		-.0800	-.0800	-.0620	-.0780	-.0930	-.0930	-.0630		
105.000			-.0240	-.0360	-.0780	-.0990	-.0990	-.0680		
110.000										
120.000		-.0840	-.0800	.0390	.0030	-.1110	-.1060	-.0690		
135.000				.3910	.2660	-.1140	-.0970	-.0750		
150.000		-.0790	-.0800	.0530	.1760	-.0710	-.0560	-.0480		
165.000		-.0890	-.0970	.1110	.0015	.0040	.0040	-.0470		
180.000		-.1110	-.1100	-.0790						

## AMES 87-7U7 IAS OEA + S3 + T9 ORBITER FUSELAGE

(RBNB1.0)

MACH ( 1 ) = 2.498 BETAT ( 0 ) = 0.55U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1426	.1475	.1480	.1339	.1462	.1355	.1526	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.512U
PHI															
.140	1.284U	.946U	.423U	.109U	.154U	.189U		.031U	.053U	.016U	.018U	-.011U	-.019U	-.049U	-.047U
2U.14U			.393U	.121U	.139U	.146U		.025U	.045U	-.065U	-.072U	-.096U	-.116U	-.111U	
4U.14U			.358U	.111U	.126U	-.071U		-.039U	.145U	-.069U	-.072U	-.096U	-.116U	-.111U	
55.14U			.316U	-.137U	-.144U	-.037U		-.039U	-.039U	-.069U	-.072U	-.096U	-.116U	-.111U	
7U.14U			.254U	-.163U	-.161U	-.028U		-.076U	-.076U	-.062U	-.076U	-.096U	-.116U	-.111U	
9U.14U	.689U		.217U	-.167U	-.161U	-.034U		-.025U	-.025U	-.062U	-.076U	-.096U	-.116U	-.111U	
12U.14U			.229U	-.125U	-.139U	-.146U		.018U	-.018U	-.087U	-.149U	-.137U	-.108U	-.069U	
142.14U			.275U	.132U	.134U	.122U		.296U	.296U	-.134U	-.164U	-.147U	-.116U	-.091U	
15U.14U							.498U								
157.14U															
162.14U															
165.14U															
169.14U															
172.14U							.921U								
18U.14U	1.284U	.882U	.316U	.114U	.116U	.171U		.729U	.729U	-.125U	-.126U	-.137U	-.167U	-.172U	
X/LB	.5675	.6626	.738U	.7868	.8283	.8848	.9262	.9659	1.1415	1.1092					

PHI

.140	-.031U														
4U.14U	-.071U														
7U.14U	-.108U														
9U.14U	-.079U	-.168U	-.076U	-.175U	-.114U	-.098U									
105.14U			-.032U	-.065U	-.077U	-.099U	-.117U								
11U.14U															
12U.14U	-.169U	-.064U	.076U	.065U	-.117U	-.121U	-.105U	-.106U							
135.14U			.375U	.311U	-.118U	-.081U	-.074U								
15U.14U	-.112U	-.124U	-.147U	-.176U	-.118U	-.189U	-.115U								
165.14U	-.133U		-.182U	.154U	-.161U	-.121U	-.118U								
18U.14U	-.138U	-.127U	-.166U												

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.58U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1426	.1475	.1480	.1339	.1462	.1355	.1526	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.512U
PHI															
.140	1.308U	.775U	.358U	.124U	.108U	.182U		.133U	.168U	.031U	.016U	.017U	-.022U	-.027U	
2U.14U			.426U	.159U	.169U	.149U		.168U	.168U	-.063U	-.063U	-.063U	-.063U	-.063U	
4U.14U			.574U	.143U	.169U	.174U		.211U	.211U	-.084U	-.084U	-.084U	-.084U	-.084U	
55.14U			.646U	.159U	.159U	.204U		.343U	.343U	-.238U	-.238U	-.238U	-.238U	-.238U	
7U.14U			.681U	.221U	.156U	.215U		.414U	.414U	-.288U	-.288U	-.288U	-.288U	-.288U	
9U.14U	1.154U		.678U	.225U	.155U	.211U		.422U	.422U	-.315U	-.315U	-.315U	-.315U	-.315U	
12U.14U			.923U	.218U	.178U	.218U		.311U	.311U	-.182U	-.182U	-.182U	-.182U	-.182U	





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AMES 07-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNS:0)

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.26U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5073	.6626	.738U	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI										
7U.144U	-.068U	-.064U	-.078U	-.059U	-.046U	-.041U	-.051U	-.049U		
9U.144U	-.057U	-.073U	-.064U	-.077U	-.062U	-.061U	-.062U	-.062U		
1U5.144U			-.046U	.046U	.023U	-.049U	-.047U			
11U.144U				.031U	.041U	-.044U	-.046U			
12U.144U				.024U	.04U	-.077U	-.065U	-.053U		
13U.144U				-.061U	-.068U	-.067U	-.085U	-.059U		
14U.144U				-.058U	-.074U	.034U	.019U	-.018U		
14U.144U				-.078U	-.072U	-.066U				

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.11U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.000U	.0073	.0188	.0339	.0602	.0355	.0546	.0581	.0732	.0938	.0921	.0955	.092U
PHI													
14U.144U	1.306U	.819U	.39U	.031U	.043U	-.018U			.058U	.149U	.091U	.058U	.034U
2U.000U			.424U	.042U	.043U	-.023U			.014U	.114U	.042U	.042U	-.026U
4U.144U			.497U	.068U	.042U	.052U			.049U	.112U	.042U	.042U	-.026U
55.144U			.504U	.07U	.067U	.05U			.053U	.147U	.058U	-.012U	-.042U
7U.144U			.515U	.052U	.052U	.063U			.093U	.179U	.042U	-.034U	-.051U
9U.144U			1.011U	.018U	.024U	.087U			.063U	.114U	.042U	-.034U	-.059U
12U.144U			.471U	.033U	.094U	.011U			.063U	.146U	-.051U	-.036U	-.059U
142.144U			.434U	.034U	.018U	.055U			.541U	-.046U	-.074U	-.054U	-.048U
15U.144U							.701U		.625U	-.077U	-.062U	-.054U	-.042U
157.144U									.621U	-.077U	-.062U	-.054U	-.042U
162.144U									.831U	-.098U	-.092U	-.077U	-.057U
165.144U													
165.144U													
172.144U													
18U.144U	1.306U	.936U	.351U	.039U	.021U	.055U			.831U	-.098U	-.092U	-.077U	-.057U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5073	.6626	.738U	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI										
14U.144U	-.072U	.020U	.078U	.053U	-.013U	-.063U			-.073U	-.113U
4U.144U	-.031U	-.020U	-.092U	-.067U	-.077U	-.086U			-.043U	
7U.144U			-.068U	-.071U	-.055U	-.057U			-.038U	
9U.144U			-.068U	-.071U	-.055U	-.057U			-.038U	
1U5.144U			-.022U	-.019U	-.026U	-.049U			.019U	
11U.144U				.061U	-.055U	-.054U			-.027U	
12U.144U				.019U	-.055U	-.042U				
13U.144U				.067U	-.067U	-.064U				
13U.144U				.067U	-.067U	-.064U				





AMES 87-707 IA9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNBUB8)

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.371

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.16675	.16188	.15339	.16612	.13355	.15156	.1581	.1732	.1938	.2259	.2711	.3211	.3953	.5121
PHI														
1.000	1.3591	.8571	.1421	.1341	-.1231	.1341	.1341	.1489	.1689	.1111	.1489	.1689	.1111	-.1481
20.16675	.3940	.1381	.1311	.1311	-.1241	.1331	.1331	.1431	.1631	.1341	.1431	.1631	.1341	-.1731
40.16675	.4151	.1421	.1171	-.1231		-.1111	-.1111	.1091	.1251	.1091	.1251	.1091	.1251	-.1661
55.16675	.3971	.1391	.1411	-.1241		.1131	.1131	.1111	.1261	.1111	.1261	.1111	.1261	-.1771
70.16675	.3581	.1381	.1151	-.1211	.1161	-.1211	-.1211	.1211	.1311	-.1221	.1311	.1211	.1311	-.1551
90.16675	.3311	.1321	.1211	.1321				-.1291	-.1291	-.1661	-.1291	-.1291	-.1661	-.1481
110.16675	.3451	.1441	.1731	.1151		.6311	.3791	.3791	-.1691	-.1661	-.1691	-.1691	-.1661	-.1481
130.16675							.5711	.5711		-.1111	-.1111	-.1111	-.1111	-.1671
150.16675							.6151	.6151		-.1071	-.1071	-.1071	-.1071	-.1561
162.16675														
169.16675														
172.16675														
180.16675	.3359	.3471	.1271	.1141	.1441	.6371	.8121	.8121	-.1071	-.1071	-.1071	-.1071	-.1071	-.1561

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.541

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.16675	.16188	.15339	.16612	.13355	.15156	.1581	.1732	.1938	.2259	.2711	.3211	.3953	.5121
PHI														
1.000	1.3311	.8211	.1231	.1141	.1111	.1491	.1491	.1211	.1331	.1481	.1211	.1331	.1481	-.1331
20.16675	.3611	.1191	.1461	-.1161		.1111	.1111	.1321	.1491	.1321	.1491	.1321	.1491	-.1481
40.16675	.3661	.1181	.1491	-.1321		-.1121	-.1121	.1071	.1221	.1071	.1221	.1071	.1221	-.1721
55.16675	.3391	.1111	.1241	-.1221		.1121	.1121	.1121	.1221	.1121	.1221	.1121	.1221	-.1721
70.16675	.2961	.1121	.1411	-.1121	.1111	-.1231	-.1231	.1231	.1331	-.1231	.1331	.1231	.1331	-.1551
90.16675	.2741	.1091	.1431	-.1121		-.1231	-.1231	.1231	.1331	-.1231	.1331	.1231	.1331	-.1551
110.16675	.2871	.1091	.1431	-.1121		-.1231	-.1231	.1231	.1331	-.1231	.1331	.1231	.1331	-.1551



AMES 87-707 IAG OEA + S3 + T9 ORBITER FUSELAGE

(RDNBUB)

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 8.744

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0575	.0488	.0339	.0612	.1355	.1916	.1381	.1732	.1958	.2259	.2711	.3210	.3953	.5120
PHI														
101.1440	.0910	.3290	.1150	.1060	.1290			.7580						
X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0415	1.0392				

PHI

.1440	-.0420													
40.1440	-.0940	-.0520	-.0510	-.0910	-.1070	-.1140		-.1180						
70.1440		-.0840	-.0820	-.0850	-.1070	-.1140	-.0850							
90.1440		-.0770	-.0780	-.0920	-.0870	-.1120	-.0790							
110.1440			-.0320	-.0590	-.0970	-.1130	-.0850							
110.1440								-.0350						
120.1440		-.0680	-.0760	.0500	-.0460	-.1210	-.1130	-.0870	-.0750					
135.1440			.2000	.2010	-.0750	-.0850	-.0580							
150.1440		-.1090	-.1110	-.0670	-.0920	-.1220	-.1080	-.0790						
165.1440		-.1260	-.0880	-.0610	-.0750	-.0670	-.0910							
180.1440		-.1250	-.1110	-.0860										

MACH ( 3 ) = 3.912 BETAT ( 1 ) = -8.721

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0440	.0773	.0188	.0339	.0912	.1355	.1916	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
PHI															
.1440	.0000	.0440	.0440	.0440	-.0140	.0340			.1590						
20.1440		.0420	.0410	-.0480	.0660				.1620						
40.1440		.5530	.1310	.0670	.1020				.2580						
55.1440		.5800	.2020	.1490	.1740				.3970						
70.1440		.6810	.2210	.1910	.1800				.1910						
90.1440		.0400	.6850	.2300	.1520	.1790			.1890						
120.1440		.5990	.2210	.1770	.2070				.2650						
142.1440		.4950	.1750	.1520	.2410				.6590						
150.1440							.7510								
157.1440									.7130						
162.1440															
165.1440															
169.1440															
172.1440		.0020	.0440	.3420	.1130	.1210									
180.1440						.6700									
X/LB	.5973	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0415	1.0392					

PHI

.1440	-.0410														
40.1440	.0130	.0370	.1810	.1490	.0840	.0610		-.0740							

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 AMES 87-707 1A9 OCA + S3 + 79 ORBITER FUSELAGE

MACH ( 3 ) = 3.342 BETAT ( 1 ) = -8.720

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392
PHI										
70.000	-.0300	-.0570	-.0430	-.0350	.0190	.0170	.0150	.0450		
90.000	-.0230	-.0400	-.0350	.0150	.0410	.0410	.0420			
105.000			.0200	.0440	.0180	.0730		.0320		
110.000								.0380		
120.000	-.0480	-.0530	.2470	.2180	.0630	.0550	.0440			
130.000			.1410	.1770	-.0330	-.0350	-.0370			
150.000	-.0410	-.0530	-.0130	.0090	-.0710	-.0580	-.0420			
165.000	-.0430	-.0320	.0280	-.0150	.0490	-.0420				
180.000	-.0030	-.0010	-.0850							

MACH ( 3 ) = 3.342 BETAT ( 2 ) = -6.530

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0073	.0188	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
70.000	.0000	.0440	.0000	.0270	-.0480	.0440		.0870	.0690	.0690	.0150	.0280	.0150	.0090	-.0280
20.000			.4390	.0530	-.0410	.0550		.0920	.0890	.1220	.0190	.0800	.0190	-.0150	-.0130
40.000			.5380	.1190	.0610	.0950		.2190	.2210	.2210	.1290	.0470	.0220	.0470	
55.000			.5640	.1660	.1180	.1210		.1460	.1730	.1730	.0470	.0470	.0480	-.0130	
70.000			.6190	.1780	.1150	.1280		.1290	.1730	.1730	.0470	.0470	.0480	-.0130	
90.000	.0000	.6270	.1870	.1190	.1270			.2010	.0940	.0440	.0440	.0440	-.0110	-.0330	
120.000			.5610	.1890	.1490	.1710		.0970	.0440	.0440	-.0330	-.0230	-.0230	-.0370	
142.000			.4780	.1590	.1420	.1790	.7300	.6180							
150.000								.6810							
157.000								.6360							
162.000															
165.000															
169.000							.6890								
172.000			.0000	.3490	.1300	.1330		.8110							
180.000	.0000	.0000	.0000	.0000	.0000	.0000									

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392
PHI										
70.000	-.0440	-.0410	.1580	.1690	.0660	.0370		-.0740		-.0720
40.000	-.0130	-.0480	-.0570	-.0520	-.0440	-.0160		-.0660		-.0660
70.000		-.0410	-.0480	-.0410	.0120	.0170		.0150		
90.000		-.0560	-.0480	-.0410	.0600	.0430		.0140		
105.000			.0410	.0130	.0600	.0430				
110.000								.0140		
120.000	-.0580	-.0580	.1820	.1630	.0270	.0330		.0210		
130.000			.1200	.1570	-.0410	-.0460		-.0440		
135.000								-.0590		
150.000	-.0490	-.0580	-.0210	.0040	-.0730	-.0590		-.0460		







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AVES 87-747 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RBN2518)

MACH ( 3 ) = 3.542 BETAT ( 6 ) = 4.460

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1508	.1539	.1562	.1585	.1598	.1732	.1958	.2299	.2711	.3244	.3953	.5120
PHI								.8110						
180.1440	.1440	.1440	.1490	.1250	.1150	.1340								
X/LB	.5875	.6826	.7381	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392				
PHI														
.1440														
40.1440	-.1770		-.1410	-.1460	-.1590	-.1810								
70.1440	-.1860	-.1980	-.1880	-.1820	-.1720	-.1830	-.1650							
90.1440	-.1770	-.1670	-.1750	-.1730	-.1540	-.1670	-.1640							
110.1440			-.1450	-.1520	-.1630	-.1680								
120.1440	-.1580	-.1590	.1420	-.1450	-.1460	-.1660	-.1670							
130.1440			.1120	.1330	-.1530	-.1590	-.1510							
150.1440	-.1590	-.1430	.1350	.1670	-.1170	-.1680	-.1230							
160.1440	-.1680		-.1410	.1630	.1430	.1150	.1110							
180.1440	-.1680	-.1400	-.1680											

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.660

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1508	.1539	.1562	.1585	.1598	.1732	.1958	.2259	.2711	.3244	.3953	.5120
PHI														
.1440														
20.1440	.1600	.1600	.1600	.1620	-.1410	-.1490								
40.1440	.3680	.1620	.1620	-.1490	-.1620									
50.1440	.3720	.1630	.1630	-.1520	-.1310									
70.1440	.3710	.1620	.1620	-.1490	-.1460									
90.1440	.2880	.1630	.1630	-.1620	-.1490									
120.1440	.2740	-.1420	-.1620	-.1620	-.1410									
140.1440	.2890	.1630	.1630	.1630	.1620									
150.1440	.3110	.1670	.1620	.1620	.1670									
160.1440														
180.1440	.0000	.0000	.1170	.1100	.1200	.5790								
X/LB	.5875	.6826	.7381	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392				
PHI														
.1440														
40.1440	-.1680	-.1780		-.1530	-.1540	-.1680	-.1770	-.1790						





DATE 17 SEP 73

TABULATED PRESSURE DATA - 1A9C

PAGE 17J

AMES 87-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBINBJ-0)

MACH ( S ) = 3.942      BETAT ( 0 ) = 0.86J

SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB      .5073   .6626   .738U   .7869   .8283   .8848   .9262   .9639   1.0415   1.0392

PHI

185.146U      -.117U      -.1095U      -.1035U      -.1043U      -.0954U      -.074U

186.146U      -.116U      -.111U      -.1095U



## AMES 87-757 IAS OCA + S3 + T9 ORBITER FUSELAGE

(RBINBUS)

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.285

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1414	.1475	.1518	.1539	.1562	.1555	.1526	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5124
PHI															
.140	1.2890	.9230	.4885	.1970	.0710	.1150			.1244		.0510	.0320	.0488	-.0489	-.0624
20.144		.5344	.1340	.1340	.1340	.1450			.0794		.0210				
40.144		.6530	.1990	.1880	.1340				.0650		.0244	-.0220	-.0444	-.0230	.0580
55.144		.6824	.2160	.1870	.2940				.2180		.1280				
70.144		.6480	.2180	.1350	.3180				.1844		.1844	-.0280	-.0520	-.0520	-.0570
90.144	1.0504	.5860	.1630	.1210	.2544				.2470		.0330	-.0440	-.0624	-.0624	-.0610
120.144		.5450	.1540	.1210	.1850				.3690		.1590	.0444	-.0580	-.0910	-.0880
142.144		.4230	.1190	.1030	.1670				.6130		-.0310	-.0430	-.0540	-.0670	-.0944
157.144						.6830									
162.144									.6180						
165.144															
169.144									.5260						
172.144							.6140								
180.144	1.2880	.8170	.2830	.0840	.0760	.1410			.6890		-.1320	-.1290	-.1110	-.1610	-.1390
X/LB	.5875	.6626	.7244	.7869	.8283	.8848	.9262	.9639	1.0415	1.0392					

MACH ( 1 ) = 2.498

BETAT ( 3 ) = -4.170

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0600	.1475	.0188	.0339	.0612	.1355	.1526	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5124
PHI															
.140	1.3380	.9270	.4980	.1550	.0690	-.0230			.1940		.1110	.0210	.0220	-.0510	-.0860
20.144		.5430	.1050	.1340	-.0030				.1420		.0550				
40.144		.6120	.1510	.1870	.1440				.0880		.0310	-.0460	-.0244	-.0410	.0380
55.144		.6240	.1590	.1620	.2420				.1830		.1100				
70.144		.5940	.1590	.0980	.2640				.1540		.1540	.0220	-.0460	-.0660	-.0640
90.144	1.0270	.5350	.1190	.0870	.1520				.2544		.2100	.0140	-.0560	-.0750	-.0820
120.144		.4620	.1180	.0960	.1340				.2750		.1380	-.0240	-.0660	-.0910	-.0990





DATE 17 SEP 73 TABULATED PRESSURE DATA - 1A9C

AMES 87-717 1A9 ORA + S3 + T9 ORBITER FUSELAGE (RB8B19)

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.181

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP							
X/LB	PHI	0.6626	0.7380	0.8283	0.8848	0.9262	0.9639	1.0415	1.0392
70.1440	-0.0991	-0.1160	-0.1444	-0.1720	-0.1740	-0.1910	-0.1920		
90.1440	-0.0791	-0.1880	-0.1440	-0.1490	-0.1660	-0.1890	-0.1830		
105.1440		-0.1240	-0.1220	-0.1660	-0.1710	-0.1850			
110.1440						-0.1870			
125.1440	-0.1820	-0.1690	0.1510	0.1430	-0.1660	-0.1640	-0.1580	-0.1620	
135.1440			0.2560	0.1870	-0.1650	-0.1540	-0.1210		
150.1440	-0.0730	-0.0740	0.0620	0.1670	-0.1530	-0.1470	-0.1160		
165.1440	-0.1670		0.1410	0.1450	0.0850	0.1440	-0.1380		
180.1440	-0.0790	-0.0790	-0.0670						

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.343

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP							
X/LB	PHI	0.6626	0.7380	0.8283	0.8848	0.9262	0.9639	1.0415	1.0392
70.1440	1.3420	0.9390	0.4730	0.0950	0.5550	0.1150	0.1810	0.1960	0.1960
90.1440		0.4810	0.0920	0.0310	-0.1430		0.2160	0.1430	0.1430
105.1440		0.4510	0.0920	0.0670	-0.1280		0.1210	0.1320	0.1320
120.1440		0.4210	0.0330	0.0220	-0.0310		0.0170	0.0170	0.0170
135.1440		0.3680	-0.0450	-0.0320	-0.1150		0.1160	0.0230	0.0230
150.1440	0.8230	0.3140	-0.1170	-0.0360	0.1110		0.1190	0.0290	0.0290
165.1440		0.2810	0.1130	-0.0190	0.1170		0.0320	-0.1240	-0.1240
180.1440		0.2910	0.0390	0.0910	0.0810		0.3640	-0.1210	-0.1210
195.1440						0.5730			
210.1440									
225.1440									
240.1440									
255.1440									
270.1440									
285.1440									
300.1440									

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.343

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP							
X/LB	PHI	0.6626	0.7380	0.8283	0.8848	0.9262	0.9639	1.0415	1.0392
70.1440	-0.0710	0.5720	-0.0350	-0.0230	-0.0740	-0.1430	-0.1030	-0.1060	-0.1060
90.1440	-0.0180	-0.0990	-0.1070	-0.1140	-0.0960	-0.1110	-0.0900		
105.1440		-0.1810	-0.0990	-0.1650	-0.0760	-0.0990	-0.0910		
120.1440			-0.0230	-0.0470	-0.0740	-0.0960	-0.0910		
135.1440	-0.1640	-0.0710	0.0880	0.0230	-0.0760	-0.0970	-0.0640	-0.0650	
150.1440		0.2730	0.2730	0.2730	0.0730	0.0690	0.0510		
165.1440	-0.0740	-0.0770	0.0700	0.2180	0.1440	0.1690	0.1250		

AMES 07-707 IAS ORA + S3 + T9 ORBITER FUSELAGE

(RBINB19)

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.344

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .3873 .0666 .7360 .1003 .0403 .0303 .0202 .0639 1.0415 1.0352

PHI

165.040 -0.720 -0.030 .1650 .0410 -0.1490 -0.0261

181.040 -0.0990 -0.0910 -0.0670

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.440

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .1400 .1475 .0389 .0339 .0602 .1355 .1516 .1581 .1732 .1958 .2259 .2711 .3214 .3933 .5120

PHI

.1400 1.3080 .9260 .4890 .1860 .0560 .1570 .1070 .1420 .1420 .1420 .1420 .1420 .1420 .1420

20.040 .4670 .1840 .1220 .1230 .1230 .1230 .1230 .1230 .1230 .1230 .1230 .1230 .1230 .1230

40.040 .4270 .0830 .0280 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510

55.040 .3610 .0240 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490

70.040 .3030 .0320 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470

90.040 .2560 .0480 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470

120.040 .2390 .0130 .0330 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470 .0470

142.040 .2600 .0190 .0240 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510 .0510

157.040 .4430 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720

162.040 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720

165.040 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720

169.040 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720

172.040 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720 .4720

180.040 1.3080 .8190 .2780 .0720 .0790 .1180 .5340 .6750 .6750 .6750 .6750 .6750 .6750 .6750

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.440

X/LB .5873 .6626 .7380 .7869 .8283 .8848 .9262 .9639 1.0415 1.0352

PHI

.1400 -0.0410 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

40.040 -0.0230 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

70.040 -0.0980 -0.1190 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

90.040 -0.0790 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

110.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

120.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

130.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

135.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

140.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

145.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

150.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

155.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

160.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

165.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

170.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

175.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310

180.040 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310 .0310



AMES 87-7J7 IAG OEA + S3 + T9 ORBITER FUSELAGE (RBNDU9)

MACH ( 1 ) = 2.498 BETAT ( 0 ) = 0.570

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1475	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI	1.2390	.8830	.4020	.0380	.0730	.1300	.1770	.0390	.0230	-.0160	-.0310	-.0420	-.0450	
.140														
20.140			.3780	.0330	.0480	.1310	.0770	.0390	.0160	-.0160	-.0310	-.0420	-.0450	
40.140			.3490	.0440	.0240	-.0210	.0530	.0300	-.0160	-.0860	-.1120	-.1240	-.1110	
55.140			.3060	-.0240	-.0390	-.0500	-.0500	-.0500	-.0280	-.0410	-.0680	-.1130	-.1260	
70.140			.2490	-.0640	-.0740	-.0320	-.0480	-.0480	.0110	-.0640	-.0870	-.1110	-.1130	
90.140		.6810	.2090	-.0710	-.0340		-.0480	-.0480	-.0850	-.1410	-.1280	-.0980	-.0830	
120.140			.2030	-.0380	-.0510		-.0450	-.1120						
142.140			.2330	.0480	.0120	.0470	.2530	.2530	-.0360	-.1680	-.1530	-.0980	-.0960	
151.140							.4340							
157.140								.4580						
162.140								.4980						
165.140														
169.140														
172.140		.8140	.2750	.0700	.0750	.1360	.4530	.6560	-.1750	-.1660	-.1440	-.1980	-.1320	
180.140		.5873	.6826	.7380	.7869	.8848	.9282	.9639	-.1340	-.1340	-.1760	-.1830	-.1670	
X/LB	1.2390	.6826	.7380	.7869	.8848	.9282	.9639	1.0415	1.0392					

PHI

.140	-.0310													
40.140	-.0730	-.0410	-.0680	-.0460	-.1240	-.1270	-.1280	-.1280	-.0970					
70.140	-.0980	-.1160	-.1140	-.0930	-.1030	-.1270	-.1060	-.1060	-.0930					
90.140	-.0980	-.0980	-.0750	-.0730	-.0910	-.1020	-.1020	-.1020	-.0930					
109.140			-.0260	-.0610	-.0950	-.1110	-.1060	-.1060	-.0990					
110.140		-.1030	-.0920	.0520	.0470	-.1290	-.1280	-.1090	-.0970					
120.140			.3470	.2450	-.1120	-.0960	-.0710	-.0710	-.0710					
135.140		-.1200	-.1270	-.0480	-.0730	-.1420	-.1280	-.1010	-.1010					
150.140		-.1280	-.0760	.0440	-.0810	-.1090	-.0940	-.0940	-.0940					
165.140		-.1370	-.1340	-.1010										

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.560

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0040	.0075	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI	1.2230	.7980	.3610	.0280	-.0420	.0570			.0110	.0110	.0110	.0160	-.0120	-.0340	-.0320
.140															
20.140			.4450	.0610	.0480	.1290	.0320	.0320	.0320	.0320	.0320	.0320	-.0280	-.0330	-.0330
40.140			.3710	.0930	.0930	.0930	.0930	.0930	.0930	.0930	.0930	.0930	-.0310	-.0280	-.0330
55.140			.6270	.2140	.1620	.0930	.0930	.0930	.0930	.0930	.0930	.0930	.0280	.0430	-.0450
70.140			.6530	.2140	.1520	.1940	.1940	.1940	.1940	.1940	.1940	.1940	.0120	.0110	-.0220
90.140		1.0080	.6370	.2100	.1490	.1910	.1910	.1910	.1910	.1910	.1910	.1910	.0430	-.0390	-.0620
120.140			.5410	.1910	.1510	.1950	.1950	.1950	.1950	.1950	.1950	.1950	.0430	-.0390	-.0620





DATE 17 SEP 73 TABULATED PRESSURE DATA - IASC

AVES 87-707 1A9 02A + S3 + T9 ORBITER FUSELAGE (REMARKS)

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.22U

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB	.5873 .6626 .7380 .7869 .8283 .8848 .9262 .9639 1.0015 1.0392		
PHI			
70.1440	-.0770	-.1080	-.0770
90.1440	-.0670	-.0770	-.0670
110.1440	-.0570	-.0670	-.0570
120.1440	-.0470	-.0570	-.0470
130.1440	-.0370	-.0470	-.0370
140.1440	-.0270	-.0370	-.0270
160.1440	-.0170	-.0270	-.0170
180.1440	-.0070	-.0170	-.0070

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.11U

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB	.5000 .5075 .5150 .5225 .5300 .5375 .5450 .5525 .5600 .5675 .5750 .5825 .5900 .5975 .6050 .6125 .6200 .6275 .6350 .6425 .6500 .6575 .6650 .6725 .6800 .6875 .6950 .7025 .7100 .7175 .7250 .7325 .7400 .7475 .7550 .7625 .7700 .7775 .7850 .7925 .8000 .8075 .8150 .8225 .8300 .8375 .8450 .8525 .8600 .8675 .8750 .8825 .8900 .8975 .9050 .9125 .9200 .9275 .9350 .9425 .9500 .9575 .9650 .9725 .9800 .9875 .9950		
PHI			
20.1440	1.3310	.0610	.0610
40.1440	.4430	.1580	.1580
60.1440	.3150	.1420	.1420
80.1440	.2190	.1260	.1260
100.1440	.1440	.1100	.1100
120.1440	.0880	.0640	.0640
140.1440	.0480	.0340	.0340
160.1440	.0240	.0170	.0170
180.1440	.0120	.0080	.0080
200.1440	.0060	.0040	.0040
220.1440	.0030	.0020	.0020
240.1440	.0015	.0010	.0010
260.1440	.0007	.0005	.0005
280.1440	.0004	.0003	.0003
300.1440	.0002	.0001	.0001
320.1440	.0001	.0000	.0000
340.1440	.0000	.0000	.0000
360.1440	.0000	.0000	.0000
380.1440	.0000	.0000	.0000
400.1440	.0000	.0000	.0000
420.1440	.0000	.0000	.0000
440.1440	.0000	.0000	.0000
460.1440	.0000	.0000	.0000
480.1440	.0000	.0000	.0000
500.1440	.0000	.0000	.0000
520.1440	.0000	.0000	.0000
540.1440	.0000	.0000	.0000
560.1440	.0000	.0000	.0000
580.1440	.0000	.0000	.0000
600.1440	.0000	.0000	.0000
620.1440	.0000	.0000	.0000
640.1440	.0000	.0000	.0000
660.1440	.0000	.0000	.0000
680.1440	.0000	.0000	.0000
700.1440	.0000	.0000	.0000
720.1440	.0000	.0000	.0000
740.1440	.0000	.0000	.0000
760.1440	.0000	.0000	.0000
780.1440	.0000	.0000	.0000
800.1440	.0000	.0000	.0000
820.1440	.0000	.0000	.0000
840.1440	.0000	.0000	.0000
860.1440	.0000	.0000	.0000
880.1440	.0000	.0000	.0000
900.1440	.0000	.0000	.0000
920.1440	.0000	.0000	.0000
940.1440	.0000	.0000	.0000
960.1440	.0000	.0000	.0000
980.1440	.0000	.0000	.0000
1000.1440	.0000	.0000	.0000

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP	
X/LB	.5873 .6626 .7380 .7869 .8283 .8848 .9262 .9639 1.0015 1.0392		
PHI			
40.1440	-.0770	-.1080	-.0770
60.1440	-.0670	-.0770	-.0670
80.1440	-.0570	-.0670	-.0570
100.1440	-.0470	-.0570	-.0470
120.1440	-.0370	-.0470	-.0370
140.1440	-.0270	-.0370	-.0270
160.1440	-.0170	-.0270	-.0170
180.1440	-.0070	-.0170	-.0070



## AVES 87-70-7 IAS ORA + S3 + T9 ORBITER FUSELAGE

(RBMBJ-9)

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.380

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

M/LB	PHI	0.000	0.075	0.150	0.225	0.300	0.375	0.450	0.525	0.600	0.675	0.750	0.825	0.900	0.975
1.2780	0.9110	0.4080	0.4410	0.4750	0.5070	0.5370	0.5670	0.5970	0.6270	0.6570	0.6870	0.7170	0.7470	0.7770	0.8070
20.144	0.4110	0.3340	0.3380	0.3420	0.3460	0.3500	0.3540	0.3580	0.3620	0.3660	0.3700	0.3740	0.3780	0.3820	0.3860
40.144	0.4310	0.4450	0.4570	0.4690	0.4810	0.4930	0.5050	0.5170	0.5290	0.5410	0.5530	0.5650	0.5770	0.5890	0.6010
59.144	0.4170	0.4410	0.4620	0.4830	0.5040	0.5250	0.5460	0.5670	0.5880	0.6090	0.6300	0.6510	0.6720	0.6930	0.7140
70.144	0.3680	0.4210	0.4620	0.5030	0.5440	0.5850	0.6260	0.6670	0.7080	0.7490	0.7900	0.8310	0.8720	0.9130	0.9540
90.144	0.3180	0.4140	0.4620	0.5100	0.5560	0.6020	0.6480	0.6940	0.7400	0.7860	0.8320	0.8780	0.9240	0.9700	1.0160
120.144	0.2990	0.4330	0.4770	0.5210	0.5650	0.6090	0.6530	0.6970	0.7410	0.7850	0.8290	0.8730	0.9170	0.9610	1.0050
142.144	0.3420	0.4550	0.4880	0.5210	0.5540	0.5870	0.6200	0.6530	0.6860	0.7190	0.7520	0.7850	0.8180	0.8510	0.8840
157.144	0.5670														
182.144	0.5360														
185.144	0.5360														
189.144	0.5360														
172.144	0.7110														
180.144	0.2970	0.4910	0.6900	0.8940	0.9262	0.8848	0.8639	1.1415	1.0392						
0.9870	0.7360	0.7869	0.8283	0.8848	0.9262	0.8848	0.8639	1.1415	1.0392						

M/LB

PHI

0.000	-0.0720														
40.000	-0.0780	-0.0280	-0.0100	-0.0230	-0.0450	-0.0930	-0.1670	-0.2620	-0.3800	-0.5200	-0.6800	-0.8600	-1.0600	-1.2800	-1.5200
70.144	-0.1010	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600	-0.0600
90.144	-0.1080	-0.0910	-0.0770	-0.0770	-0.0760	-0.0730	-0.0730	-0.0730	-0.0730	-0.0730	-0.0730	-0.0730	-0.0730	-0.0730	-0.0730
105.000		-0.0940	-0.0720	-0.0790	-0.0750	-0.0710	-0.0710	-0.0710	-0.0710	-0.0710	-0.0710	-0.0710	-0.0710	-0.0710	-0.0710
115.144		-0.0880	-0.0730	-0.0700	-0.0740	-0.0770	-0.0790	-0.0810	-0.0830	-0.0850	-0.0870	-0.0890	-0.0910	-0.0930	-0.0950
121.144		-0.0800	-0.0700	-0.0650	-0.0650	-0.0650	-0.0650	-0.0650	-0.0650	-0.0650	-0.0650	-0.0650	-0.0650	-0.0650	-0.0650
135.000		-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800
150.000		-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800
165.000		-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800
180.000		-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800	-0.0800

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.550

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

M/LB	PHI	0.000	0.075	0.150	0.225	0.300	0.375	0.450	0.525	0.600	0.675	0.750	0.825	0.900	0.975
1.2280	0.8010	0.3820	0.4270	0.4650	0.5020	0.5390	0.5760	0.6130	0.6500	0.6870	0.7240	0.7610	0.7980	0.8350	0.8720
20.144	0.3790	0.3220	0.3190	0.3160	0.3130	0.3100	0.3070	0.3040	0.3010	0.2980	0.2950	0.2920	0.2890	0.2860	0.2830
40.000	0.3040	0.4040	0.4600	0.5160	0.5720	0.6280	0.6840	0.7400	0.7960	0.8520	0.9080	0.9640	1.0200	1.0760	1.1320
59.144	0.3640	0.4190	0.4620	0.5050	0.5480	0.5910	0.6340	0.6770	0.7200	0.7630	0.8060	0.8490	0.8920	0.9350	0.9780
70.144	0.3110	0.4090	0.4620	0.5150	0.5680	0.6210	0.6740	0.7270	0.7800	0.8330	0.8860	0.9390	0.9920	1.0450	1.0980
90.144	0.2670	0.4110	0.4620	0.5130	0.5640	0.6150	0.6660	0.7170	0.7680	0.8190	0.8700	0.9210	0.9720	1.0230	1.0740
120.144	0.2320	0.4140	0.4620	0.5100	0.5560	0.6020	0.6480	0.6940	0.7400	0.7860	0.8320	0.8780	0.9240	0.9700	1.0160











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AMES 87-707 IAS ORA + S3 + T9 ORBITER FUSELAGE

(RBNSI:9)

MACH ( 3 ) = 3.5/2 BETAT ( 4 ) = -2.130

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1488	.1539	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI	.1440	.1440	.1440	.1590	-.1420	-.1400		-.1130			.1050	.1930	.1240	.1260	-.1240
20.1440	.4970	.1070	.1110	.1250	.1440		-.1410			.1070	.1060	.1230	-.1150	-.1160	-.1180
40.1440	.5710	.1250	.1360	.1570	.1540		.1540			.1560	.1630	.1510	-.1490	-.1240	-.1440
55.1440	.5190	.1260	.1550	.1580	.1680		.1680			.1550	.1460	-.1460	-.1420	-.1290	-.1590
70.1440	.4710	.1150	.1590	.1580	.1790		.1790			.1420	-.1490	-.1470	-.1380	-.1380	-.1620
120.1440	.3750	.1120	.1680	.1120	.1680		.1680			-.1420	-.1420	-.1460	-.1460	-.1460	-.1460
130.1440	.1620	.1440	.1680	.1680	.1680		.1680			-.1590	-.1590	-.1760	-.1640	-.1610	-.1530
165.1440	.1690	.1440	.1680	.1680	.1680		.1680			-.1680	-.1680	-.1680	-.1680	-.1680	-.1680
172.1440	.1690	.1440	.1680	.1680	.1680		.1680			-.1680	-.1680	-.1680	-.1680	-.1680	-.1680
180.1440	.1690	.1440	.1680	.1680	.1680		.1680			-.1680	-.1680	-.1680	-.1680	-.1680	-.1680
X/LB	.5073	.6626	.7360	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392					

PHI	.1440	.1475	.1488	.1539	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
.1440	.1440	.1440	.1440	.1590	-.1420	-.1400		-.1130			.1050	.1930	.1240	.1260	-.1240
40.1440	.4970	.1070	.1110	.1250	.1440		-.1410			.1070	.1060	.1230	-.1150	-.1160	-.1180
70.1440	.5710	.1250	.1360	.1570	.1540		.1540			.1560	.1630	.1510	-.1490	-.1240	-.1440
90.1440	.5190	.1260	.1550	.1580	.1680		.1680			.1550	.1460	-.1460	-.1420	-.1290	-.1590
110.1440	.4710	.1150	.1590	.1580	.1790		.1790			.1420	-.1490	-.1470	-.1380	-.1380	-.1620
120.1440	.3750	.1120	.1680	.1120	.1680		.1680			-.1420	-.1420	-.1460	-.1460	-.1460	-.1460
130.1440	.1620	.1440	.1680	.1680	.1680		.1680			-.1590	-.1590	-.1760	-.1640	-.1610	-.1530
165.1440	.1690	.1440	.1680	.1680	.1680		.1680			-.1680	-.1680	-.1680	-.1680	-.1680	-.1680
172.1440	.1690	.1440	.1680	.1680	.1680		.1680			-.1680	-.1680	-.1680	-.1680	-.1680	-.1680
180.1440	.1690	.1440	.1680	.1680	.1680		.1680			-.1680	-.1680	-.1680	-.1680	-.1680	-.1680
X/LB	.5073	.6626	.7360	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392					

MACH ( 3 ) = 3.5/2 BETAT ( 5 ) = 2.260

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1488	.1539	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI	.1440	.1440	.1440	.1590	.1440	-.1390		-.1110			.1160	.1960	.1290	.1280	-.1180
20.1440	.4760	.1070	.1110	.1250	.1440		-.1240			.1160	.1070	.1190	.1160	.1140	-.1360
40.1440	.5090	.1250	.1360	.1570	.1540		-.1240			.1140	.1040	.1140	.1160	.1140	-.1360
55.1440	.5070	.1260	.1550	.1580	.1680		.1680			.1140	.1040	.1140	.1160	.1140	-.1360
70.1440	.4340	.1260	.1580	.1580	.1790		.1790			.1140	.1040	.1140	.1160	.1140	-.1360
90.1440	.3740	.1190	.1590	.1580	.1790		.1790			.1140	.1040	.1140	.1160	.1140	-.1360
120.1440	.3380	.1160	.1680	.1160	.1680		.1680			-.1420	-.1420	-.1460	-.1460	-.1460	-.1460
130.1440	.1620	.1440	.1680	.1680	.1680		.1680			-.1590	-.1590	-.1760	-.1640	-.1610	-.1530
165.1440	.1690	.1440	.1680	.1680	.1680		.1680			-.1680	-.1680	-.1680	-.1680	-.1680	-.1680
172.1440	.1690	.1440	.1680	.1680	.1680		.1680			-.1680	-.1680	-.1680	-.1680	-.1680	-.1680
180.1440	.1690	.1440	.1680	.1680	.1680		.1680			-.1680	-.1680	-.1680	-.1680	-.1680	-.1680
X/LB	.5073	.6626	.7360	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392					





DATE 17 SEP 73 TABULATED PRESSURE DATA - IA9C

(RBNBL09)

AMES 87-707 IA9 O2A + S3 + T9 ORBITER FUSELAGE

MACH ( 3 ) = 3.942 BETAT ( 7 ) = 6.670

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5073	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI										
70.000	-.0930	-.1010	-.0930	-.0890	-.0800	-.0810	-.0810	-.0730		
90.000	-.0890	-.0950	-.0860	-.0810	-.0780	-.0780	-.0780	-.0790		
110.000		-.0670	-.0700	-.0760	-.0770	-.0770	-.0770	-.0800		
120.000	-.0680	-.0600	-.0510	-.0450	-.0470	-.0480	-.0480	-.0490	-.0790	
130.000		.2140	.1580	-.0590	-.0710	-.0710	-.0640			
150.000	-.0800	-.0850	-.0310	-.0170	-.0830	-.0770	-.0510			
160.000	-.0940	-.0630	-.0680	-.0670	-.0410	-.0410	-.0440			
180.000	-.1170	-.1140	-.0810							

MACH ( 3 ) = 3.942 BETAT ( 8 ) = 8.680

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1906	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
20.000	.0000	.0000	.0000	.0160	-.0190	.0150			.1370		.0300	-.0110	.0420	-.0160	-.0480
40.000			.3250	.0260	-.0350	-.0280			.0650		.0420	-.0680	-.0800	-.0840	-.0960
55.000			.3150	.0430	-.0410	-.0310			-.0540		-.0240	-.0680	-.0800	-.0840	-.0960
70.000			.3110	-.0070	-.0320	-.0380			-.0370		-.0290	-.0390	-.0640	-.0710	-.0750
90.000			.2250	-.0230	-.0430	-.0330			-.0320		-.0390	-.0640	-.0710	-.0660	-.0740
90.000	.0000		.1970	-.0320	-.0460	-.0330			-.0490		-.0590	-.0870	-.0860	-.0710	-.0740
120.000			.2040	-.0240	-.0210	-.0210			-.0650		-.0720	-.0100	-.0980	-.0930	-.0730
142.000			.2300	.0290	.0270	.0330			.2160		-.0850	-.0180	-.0140	-.0940	-.0910
150.000						.4500									
157.000									.4700						
162.000															
169.000									.4920						
172.000															
180.000	.0000	.0000	.2000	.0800	.0770	.0800			.6480						

MACH ( 3 ) = 3.942 BETAT ( 8 ) = 8.680

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5073	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI										
40.000	-.0430									
40.000	-.0740									
70.000	-.0940	-.1030	-.0920	-.0860	-.0770	-.0820	-.0820	-.0710		
90.000	-.0840	-.0930	-.0850	-.0750	-.0770	-.0770	-.0770	-.0790		
100.000		-.0590	-.0700	-.0790	-.0730	-.0730	-.0730	-.0800		
110.000	-.0710	-.0840	.0050	-.0320	-.0880	-.0890	-.0870	-.0780		
120.000			.1190	.0690	-.0620	-.0710	-.0620	-.0620		
130.000	-.1080	-.1130	-.0880	-.0990	-.0970	-.0910	-.0910	-.0860		

DATE 17 SEP 73 TABULATED PRESSURE DATA - 1A9C

(RBNBU9)

AMES 87-707 1A9 OGA + 83 + T9 ORBITER FUSELAGE

MACH ( 3 ) = 3.502 BETAT ( 8 ) = 0.880

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

C/LB .5873 .6823 .7380 .7759 .8183 .8848 .9262 .9635 1.0415 1.0392

PHI  
165.0000 -0.1210 -0.0950 .0810 -0.0740 -0.0710 -0.0750  
180.0000 -0.1190 -0.1100 -0.0880





## AMES 87-737 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RBNB1U)

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.27U

SECTION ( 1 ) ORBITER FUSELAGE	DEPENDENT VARIABLE CP													
X/LB	.0575	.0198	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI														
1.0000	1.3030	.9280	.4940	.1410	.0340	.1440	.0910	.0370	.0370	.0550	.0130	-.1420	-.0510	-.0610
2.0000	.5430	.1440	.0870	.0470	.0530	.0470	.0530	.0530	-.1420	-.0470	-.0520	-.0580	.0510	
4.0000	.6430	.1920	.2010	.1340	.1960	.1050	.1410	.0290	.0390	.0390	-.0550	-.0550	-.0320	
5.0000	.6720	.2170	.1910	.2780	.2230	.2420	.2330	.0220	.0220	.0220	-.0570	-.0750	-.0680	
7.0000	.6590	.1910	.1310	.2980	.2420	.2420	.1130	.0320	.0320	.0320	-.0320	-.0320	-.0320	
9.0000	1.0710	.1540	.1190	.3120	.3880	.0690	.5340	.0690	.0690	.0690	-.0690	-.0690	-.0690	
12.0000	.4530	.1540	.1090	.1860	.3790	.0620	.5460	.0620	.0620	.0620	-.0620	-.0620	-.0620	
14.0000	.3790	.0620	.0840	.1730	.5630	.5110	.4690	.4690	.4690	.4690	-.4690	-.4690	-.4690	
15.0000	.1570	.0620	.0620	.1230	.5110	.5110	.6210	.6210	.6210	.6210	-.6210	-.6210	-.6210	
16.0000	.1650	.0620	.0620	.0620	.5110	.5110	.6210	.6210	.6210	.6210	-.6210	-.6210	-.6210	
16.0000	.1690	.0620	.0620	.0620	.5110	.5110	.6210	.6210	.6210	.6210	-.6210	-.6210	-.6210	
17.0000	.1720	.0620	.0620	.0620	.5110	.5110	.6210	.6210	.6210	.6210	-.6210	-.6210	-.6210	
18.0000	.1810	.0620	.0620	.0620	.5110	.5110	.6210	.6210	.6210	.6210	-.6210	-.6210	-.6210	
X/LB	.5875	.7380	.7869	.8263	.8948	.9282	.9639	1.0015	1.0392					

PHI

.0000	-.0000													
4.0000	.0000	.1820	.1310	.1180	-.0130	-.0910	-.0910	-.0910	-.0910	-.0690	-.0690	-.0690	-.0690	
7.0000	-.0560	-.0730	-.0940	-.0110	-.0540	-.0540	-.0540	-.0540	-.0540	-.0540	-.0540	-.0540	-.0540	
9.0000	-.0580	-.0580	.0290	-.0110	-.0270	-.0270	-.0270	-.0270	-.0270	-.0270	-.0270	-.0270	-.0270	
10.0000		.0440	.0910	.0790	-.0440	-.0380	-.0380	-.0380	-.0380	-.0380	-.0380	-.0380	-.0380	
11.0000			.3790	.0340	-.0140	-.0330	-.0330	-.0330	-.0330	-.0330	-.0330	-.0330	-.0330	
12.0000	-.0980	-.1010	.0660	.0340	-.0140	-.0330	-.0330	-.0330	-.0330	-.0330	-.0330	-.0330	-.0330	
13.0000		.0690	.0920	-.1140	-.1110	-.1110	-.1110	-.1110	-.1110	-.1110	-.1110	-.1110	-.1110	
14.0000	-.1130	-.1010	-.0430	-.1360	-.1390	-.1390	-.1390	-.1390	-.1390	-.1390	-.1390	-.1390	-.1390	
15.0000	-.0990		.0210	.0370	.0370	.0370	.0370	.0370	.0370	.0370	.0370	.0370	.0370	
16.0000	-.1210	-.1100	-.0940											

MACH ( 1 ) = 2.458 BETAT ( 3 ) = -4.17U

SECTION ( 1 ) ORBITER FUSELAGE	DEPENDENT VARIABLE CP														
X/LB	.1440	.0175	.0188	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5121
PHI															
.0000	1.3340	.9590	.5240	.1480	-.1650	.0830	.1490	.0510	.0510	.0590	.0140	-.0570	-.0680		
2.0000	.5810	.1640	.0990	.0730	.0730	.0730	.0730	.0730	.0730	.0730	-.0730	-.0730	-.0730		
4.0000	.6220	.1870	.1960	.1140	.1640	.0830	.1640	.0830	.0830	.0830	-.0830	-.0830	-.0830		
5.0000	.6280	.1820	.1730	.2310	.2310	.2310	.1930	.1930	.1930	.1930	-.1930	-.1930	-.1930		
7.0000	.6120	.1490	.1010	.2580	.2580	.2580	.1950	.1950	.1950	.1950	-.1950	-.1950	-.1950		
9.0000	1.0340	.0360	.1170	.0810	.1970	.1970	.2070	.2070	.2070	.2070	-.2070	-.2070	-.2070		
12.0000	.4270	.1160	.0830	.1360	.4270	.4270	.4270	.4270	.4270	.4270	-.4270	-.4270	-.4270		



## AMES 87-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNB115)

MACH ( 1 ) = 2.496      BETAT ( 4 ) = -2.560

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.5440	.5075	.5188	.5329	.5502	.5556	.5581	.5732	.5958	.2239	.2711	.3200	.3953	.5120
PHI								.6460						
180.000	1.3660	.7750	.2470	.5630	.5620	.1100								
X/LB	.5973	.6626	.7300	.7869	.8203	.8848	.9262	.9639	1.0415	1.0392				
PHI														
.000	-.0370													
45.000	.5280	.1230	.1850	.5650	.5460	-.0510								
70.000	-.5940	-.5140	-.5140	-.5950	-.5450	-.0710								
90.000	-.5870	-.5950	-.5780	-.5130	-.5290	-.5380								
105.000		.6220	.5400	.5290	-.5360	-.5660								
110.000														
120.000														
135.000														
150.000														
165.000														
180.000														

MACH ( 1 ) = 2.496      BETAT ( 5 ) = 2.180

## SECTION ( 3 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.5440	.5175	.5188	.5339	.5462	.5556	.5581	.5732	.5958	.2239	.2711	.3200	.3953	.5120
PHI														
.000	1.3660	.9780	.5110	.1480	.5420	.5460								
20.000		.5120	.5120	.1490	-.5450	.5410								
40.000			.4870	.5750	.5680	.5150								
55.000				.4330	.5230	.5460								
70.000				.3720	.5110	.5490								
90.000				.2970	.5130	.5370								
105.000														
120.000														
135.000														
150.000														
165.000														
180.000														

PHI

.5440

.5075

.5188

.5329

.5502

.5556

.5581

.5732

.5958

.2239

.2711

.3200

.3953

.5120



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AMES 57-737 1A9 OGA + 33 + T9 OPBITER FUSELAGE

(FBN6115)

MACH ( 1 ) = 2.498      BETAT ( 5 ) = 4.324

SECTION ( 1 ) OPBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB      .5873   .5828   .7380   .7859   .8283   .8248   .9252   .9539   1.0115   1.0392

PHI  
155.000      -0.040      .0140      .1415      .0345      -.0165      -.0380  
150.000      -.1115      -.0930      -.0830

MACH ( 1 ) = 2.458      BETAT ( 7 ) = 5.450

SECTION ( 1 ) OPBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB      .5873   .5875   .7188   .7539   .8082   .8335   .8514   .8581   .8732   .8958   .9253   .9553   .9120

PHI  
155.000      1.3190   .2340   .4880   .1270   -.0390   .1700   .1710   .0710   .0400   .0120   -.0570   -.0580  
150.000      .4790   .3140   .0620   -.0620   .0770   .1420   .1420   .1420   .0300   .0300   -.0570   -.0570  
145.000      .4340   .3980   .0920   -.0390   .0680   .0160   .0160   .0160   .0160   .0160   -.0570   -.0570  
140.000      .3770   .3220   .0220   -.0450   .0450   .0200   .0200   .0200   .0200   .0200   -.0570   -.0570  
135.000      .3030   .1600   -.0200   -.0390   .0390   .0390   .0390   .0390   .0390   .0390   -.0570   -.0570  
130.000      .2480   .0550   -.0550   -.0550   .0550   .0550   .0550   .0550   .0550   .0550   -.0570   -.0570  
125.000      .2120   -.0390   -.0390   -.0390   .0390   .0390   .0390   .0390   .0390   .0390   -.0570   -.0570  
120.000      .2420   .0210   -.0210   .0210   .0210   .0210   .0210   .0210   .0210   .0210   -.0570   -.0570  
115.000      .1970   .0210   .0210   .0210   .0210   .0210   .0210   .0210   .0210   .0210   -.0570   -.0570  
110.000      .1820   .0210   .0210   .0210   .0210   .0210   .0210   .0210   .0210   .0210   -.0570   -.0570  
105.000      .1890   .0210   .0210   .0210   .0210   .0210   .0210   .0210   .0210   .0210   -.0570   -.0570  
100.000      .1720   .0210   .0210   .0210   .0210   .0210   .0210   .0210   .0210   .0210   -.0570   -.0570  
95.000      1.3190   .7810   .2220   .0490   .0520   .0280   .0440   .0440   .0440   .0440   -.0570   -.0570  
90.000      .5873   .9828   .7140   .7859   .8283   .8544   .8682   .8682   .8682   .8682   .8682   .8682   .8682

X/LB      .5873   .5875   .7188   .7539   .8082   .8335   .8514   .8581   .8732   .8958   .9253   .9553   .9120

PHI  
155.000      -0.040      .0140      .1415      .0345      -.0165      -.0380      -.0740      -.0740  
150.000      -.1115      -.0930      -.0830      -.0830      -.0830      -.0830      -.0830      -.0830  
145.000      -.1180      -.1180      -.1180      -.1180      -.1180      -.1180      -.1180      -.1180  
140.000      -.1590      -.1590      -.1590      -.1590      -.1590      -.1590      -.1590      -.1590  
135.000      -.1590      .0550      .0550      .0550      .0550      .0550      .0550      .0550  
130.000      -.1590      .0210      .0210      .0210      .0210      .0210      .0210      .0210  
125.000      -.1590      .0210      .0210      .0210      .0210      .0210      .0210      .0210  
120.000      -.1590      .0210      .0210      .0210      .0210      .0210      .0210      .0210  
115.000      -.1590      .0210      .0210      .0210      .0210      .0210      .0210      .0210  
110.000      -.1590      .0210      .0210      .0210      .0210      .0210      .0210      .0210  
105.000      -.1590      .0210      .0210      .0210      .0210      .0210      .0210      .0210  
100.000      -.1590      .0210      .0210      .0210      .0210      .0210      .0210      .0210



(RBNB1U)

AVES 87-7U7 1A9 ORA + S3 + T9 ORBITER FUSELAGE

MACH ( 2 ) = 2.999      BETAT ( 1 ) = -0.54U

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	PMI	.0000	.0075	.0160	.0339	.0612	.1355	.1916	.1981	.1732	.1958	.2259	.2711	.3204	.3953	.5120
142.000			.369U	.109U	.092U	.146U		.559U		.824U	.087U	-.128U	-.042U	-.141U	-.042U	-.168U
150.000										.559U		-.105U	-.029U	.141U	-.142U	-.168U
157.000								.478U		.478U						
162.000										.586U						
169.000																
172.000							.431U									
180.000																
X/LB		.3073	.6826	.730U	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					
PMI		-.037U	-.037U	-.037U	-.037U	-.037U	-.037U	-.037U	-.037U	-.037U	-.037U	-.037U	-.037U	-.037U	-.037U	-.037U
0.1000																
70.000																
90.000																
105.000																
110.000																
120.000																
135.000																
150.000																
165.000																
180.000																

MACH ( 2 ) = 2.999      BETAT ( 2 ) = -0.39U

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	PMI	.0000	.0075	.0160	.0339	.0612	.1355	.1916	.1981	.1732	.1958	.2259	.2711	.3204	.3953	.5120
142.000			.403U	.032U	.029U	.120U		.120U		.089U		.029U	.047U	.016U	-.018U	-.038U
150.000			.473U	.082U	.120U	.088U		.088U		.056U		.043U	-.047U	-.053U	-.042U	.016U
157.000			.594U	.148U	.148U	.215U		.215U		.113U		.146U				
162.000			.634U	.194U	.131U	.322U		.322U		.232U		.179U				
169.000			.810U	.193U	.109U	.194U		.194U		.254U		.179U				
172.000		.998U	.549U	.167U	.109U	.141U		.141U		.173U		.232U				
180.000			.458U	.139U	.106U	.141U		.141U		.201U		.129U				
PMI			.372U	.097U	.086U	.134U		.134U		.096U		-.141U	-.147U	-.148U	-.151U	-.167U
142.000										.978U						
150.000																
157.000																
162.000																
169.000																
172.000																
180.000																

.522U













DATE 17 SEP 73  
 ADJUSTED PRESSURE DATA - IASC  
 ANES 07-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RB-810)

MACH ( 2 ) = 2.999 BETAT ( 0 ) = 8.740

SECTION / ORBITER FUSELAGE	DEPENDENT VARIABLE CP														
Y/LB	.1144	.0075	.0108	.0339	.0502	.0355	.0156	.0181	.0732	.0198	.0259	.0271	.0320	.0393	.0120
PHI									.0790						
100.000	1.1390	.7370	.2410	.0580	.0510	.0690									
X/LB	.5173	.5625	.7190	.7869	.8283	.8848	.9262	.9539	1.0015	1.0392					
PHI															
100.000	-0.0320	-0.1410	-0.4900	-0.7790	-0.8890	-0.9140	-0.9140	-0.9120	-0.8870	-0.8870					
40.000	-0.0890	-0.1120	-0.1100	-0.0910	-0.0920	-0.1030	-0.1030	-0.0920	-0.0920	-0.0920					
70.000		-0.0610	-0.0990	-0.0720	-0.0810	-0.1050	-0.1050	-0.0890	-0.0890	-0.0890					
90.000			-0.0530	-0.0660	-0.0790	-0.1040	-0.1040	-0.0890	-0.0890	-0.0890					
110.000															
130.000															
150.000															
170.000															
190.000															
210.000															

MACH ( 3 ) = 3.932 BETAT ( 1 ) = -8.690

SECTION / ORBITER FUSELAGE	DEPENDENT VARIABLE CP														
Y/LB	.0440	.0075	.0108	.0339	.0602	.0355	.0156	.0181	.0732	.0198	.0259	.0271	.0320	.0393	.0120
PHI									.0890						
100.000	1.0440	.0440	.0440	.0270	-0.0440	-0.0220									
20.000				.0690	.0120	.1140			.0990	.1910	.0390	.0390	.0390	.0390	.0390
40.000				.0790	.0990	.0170			.0890	.2830	.0890	.0890	.0890	.0890	.0890
60.000				.0890	.1520	.0740			.0890	.3090	.0890	.0890	.0890	.0890	.0890
80.000				.0990	.1390	.0890			.0890	.2660	.0890	.0890	.0890	.0890	.0890
100.000				.0890	.1290	.0890			.0890	.1240	.0890	.0890	.0890	.0890	.0890
120.000				.0890	.1370	.0370			.0890	.0890	.0890	.0890	.0890	.0890	.0890
142.000				.0790	.0920	.0370			.0890	.0890	.0890	.0890	.0890	.0890	.0890
170.000									.0890	.0890	.0890	.0890	.0890	.0890	.0890
197.000									.0890	.0890	.0890	.0890	.0890	.0890	.0890
220.000									.0890	.0890	.0890	.0890	.0890	.0890	.0890
240.000									.0890	.0890	.0890	.0890	.0890	.0890	.0890
X/LB	.0879	.0828	.0380	.7869	.6283	.8848	.9262	.9639	1.0015	1.0392					
PHI															
100.000	-0.0890	-0.0890	-0.0890	.0890	.0890	.0890	.0890	.0890	.0890	.0890					
40.000				.0890	.0890	.0890	.0890	.0890	.0890	.0890					









DATE 17 SEP 73

TABULATED PRESSURE DATA - 1ASC

PAGE 209

AVG: 27-7.7 1AS 22A + 33 + 79 ORBITER FUELAGE

(P28015)

WCO ( 3 ) = 3.242

BETA ( 3 ) = 2.280

SECTION ( 1 ) ORBITER FUELAGE	DEPENDENT VARIABLE OP
142.100	.2080
143.100	.2080
144.100	.2080
145.100	.2080
146.100	.2080
147.100	.2080
148.100	.2080
149.100	.2080
150.100	.2080
151.100	.2080
152.100	.2080
153.100	.2080
154.100	.2080
155.100	.2080
156.100	.2080
157.100	.2080
158.100	.2080
159.100	.2080
160.100	.2080
161.100	.2080
162.100	.2080
163.100	.2080
164.100	.2080
165.100	.2080
166.100	.2080
167.100	.2080
168.100	.2080
169.100	.2080
170.100	.2080
171.100	.2080
172.100	.2080
173.100	.2080
174.100	.2080
175.100	.2080
176.100	.2080
177.100	.2080
178.100	.2080
179.100	.2080
180.100	.2080
181.100	.2080
182.100	.2080
183.100	.2080
184.100	.2080
185.100	.2080
186.100	.2080
187.100	.2080
188.100	.2080
189.100	.2080
190.100	.2080
191.100	.2080
192.100	.2080
193.100	.2080
194.100	.2080
195.100	.2080
196.100	.2080
197.100	.2080
198.100	.2080
199.100	.2080
200.100	.2080

WCO ( 3 ) = 3.242

BETA ( 3 ) = 4.480

SECTION ( 1 ) ORBITER FUELAGE	DEPENDENT VARIABLE OP
142.100	.2080
143.100	.2080
144.100	.2080
145.100	.2080
146.100	.2080
147.100	.2080
148.100	.2080
149.100	.2080
150.100	.2080
151.100	.2080
152.100	.2080
153.100	.2080
154.100	.2080
155.100	.2080
156.100	.2080
157.100	.2080
158.100	.2080
159.100	.2080
160.100	.2080
161.100	.2080
162.100	.2080
163.100	.2080
164.100	.2080
165.100	.2080
166.100	.2080
167.100	.2080
168.100	.2080
169.100	.2080
170.100	.2080
171.100	.2080
172.100	.2080
173.100	.2080
174.100	.2080
175.100	.2080
176.100	.2080
177.100	.2080
178.100	.2080
179.100	.2080
180.100	.2080
181.100	.2080
182.100	.2080
183.100	.2080
184.100	.2080
185.100	.2080
186.100	.2080
187.100	.2080
188.100	.2080
189.100	.2080
190.100	.2080
191.100	.2080
192.100	.2080
193.100	.2080
194.100	.2080
195.100	.2080
196.100	.2080
197.100	.2080
198.100	.2080
199.100	.2080
200.100	.2080

AMES 97-757 149 GBA + 83 + 73 CREDIT PURCHASE

7958215

WDC: (3) = 3.942      NETS: (7) = 4.482

## SECTION: 11080175 PURCHASE      DEFICIT: 1031616.00

1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100

WDC: (3) = 3.942

NETS: (7) = 4.482

## SECTION: 11080175 PURCHASE      DEFICIT: 1031616.00

1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100

WDC: (3) = 3.942

NETS: (7) = 4.482

## SECTION: 11080175 PURCHASE      DEFICIT: 1031616.00

1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100

WDC: (3) = 3.942

NETS: (7) = 4.482

## SECTION: 11080175 PURCHASE      DEFICIT: 1031616.00

1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100

WDC: (3) = 3.942

NETS: (7) = 4.482

## SECTION: 11080175 PURCHASE      DEFICIT: 1031616.00

1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100

AMES 07-747 1A3 OEA + 53 + 79 OBSERVED FUELSLAGE

(PROMO10)

WCON ( 3 ) = 3.942 BETA ( 7 ) = 5.099

## SECTION 1 : OBSERVED FUELSLAGE DEPENDENT VARIABLE CP

11.8	.0073	.0023	.0029	.0033	.0049	.0052	.0039	1.0043	1.0092
201									
70.000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
75.000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
80.000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
85.000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
90.000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
95.000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
100.000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000

WCON ( 3 ) = 3.942 BETA ( 9 ) = 5.294

## SECTION 1 : OBSERVED FUELSLAGE DEPENDENT VARIABLE CP

11.8	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
201														
70.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
75.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
80.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
85.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
90.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
95.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
100.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
202														
70.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
75.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
80.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
85.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
90.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
95.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
100.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
203														
70.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
75.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
80.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
85.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
90.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
95.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120
100.000	.0110	.0075	.0090	.0039	.0042	.0055	.0048	.0001	.0058	.0022	.0029	.0011	.0003	.0120

AXES 07-757 1A9 OBA + S3 + T9 ORBITER FUSELAGE

(P980115)

WAO ( 3 ) = 3.522      BETAT ( 0 ) = 0.922

SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB    .5073    .5428    .7555    .7988    .9283    .9548    .9292    .9639    1.1515    1.1592

P41

100.146

-1.1180

-1.0920

-1.0790

-1.0980

-1.0000

100.146

-1.1190

-1.1180

-1.0790

-1.0980

-1.0000



## AMES 07-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNB11)

MACH ( 1 ) = 2.496 BETAT ( 2 ) = -6.270

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5550	.5675	.5188	.5339	.5862	.5355	.5506	.5581	.5732	.5938	.2259	.2711	.3250	.3953	.5120
PHI															
.140	1.7530	.9830	.4800	.5330	.1140	.2470		.1660		.1160	.1160	.1160	.5560	.6290	.6280
20.140		.5360	.0730	.0730	.1260	.2940		.2190		.1170	.1170	.1170	.6620	.5310	.1120
40.140		.6570	.1340	.1430	.2100	.2770		.4390		.3540	.3540	.3540	.6620	.5310	.1120
55.140		.7140	.2070	.1890	.2770	.2770		.4390		.4240	.4240	.4240	.6600	.5870	.1150
70.140		.7650	.2230	.1970	.2890	.2890		.3610		.4130	.4130	.4130	.6870	.5720	.1870
90.140	1.3630		.2140	.2730	.2780	.2780		.4640		.2430	.5730	.1150	.5770	.5720	.5720
120.140		.6330	.3540	.3370	.3740	.3740		.1760		.1190	.1430	.1540	.6830	.5720	.5720
142.140		.6170	.3710	.4070	.5110		1.2690								
150.140															
157.140															
162.140															
167.140															
169.140															
172.140															
180.140	1.7030	1.3410	.6670	.3780	.3810	.5690	1.2670								
X/LB	.5675	.6828	.7380	.7869	.6283	.6848	.9282	.9699	1.1415	1.1592					
PHI															
.140	.6280														
40.140	.1560	.6860	.1710	.6930	.1460	-.1460		-.1510							
70.140		.6310	.1340	.6860	.1690	.1710		.1710							
90.140		.5770	.1430	.6930	.1320	.1540		.1640							
105.140			.1930	.2160	.1640	.5970		.5400							
110.140															
120.140		.5720	.6830	.4680	.3060	.1160		.5960							
135.140			.5990	.4730	.6690	.5570		.6840							
150.140		.5560	.6490	.2670	.5120	.1850		.1850							
165.140		.5590	.1990	.3750	.2670	.2690		.1490							
180.140	-.1270	-.5330	.5660												

MACH ( 1 ) = 2.496 BETAT ( 3 ) = -4.180

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.6400	.6675	.5188	.5339	.6612	.5355	.5506	.5581	.5732	.5938	.2259	.2711	.3250	.3953	.5120
PHI															
.140	1.7110	.9615	.4220	.5190	.5260	.2130		.1110		.1220	.1480	.1480	.5790	.5910	.5410
20.140		.4710	.1470	.5330	.2180			.2160		.1270	.1270	.1270	.6610	.5370	.5990
40.140		.5890	.1110	.6010	.1260			.2850		.1230	.1480	.1480	.6610	.5370	.5990
55.140		.6420	.1560	.6350	.2210			.3370		.3220	.3220	.3220	.6690	.6690	.6640
70.140		.6840	.1700	.6430	.2230			.2460		.3690	.3690	.3690	.6420	.5470	.5640
90.140	1.3130		.6840	.1700	.2180			.2780		.2490	.1450	.5720	.5720	.5470	.5640
120.140		.7830	.3240	.2970	.3190			.4260		.1860	.5540	.5540	.6870	.5590	.5560



(RBNB11)

AVES 07-75.7 IAS OZA + S3 + T9 ORBITER FUSELAGE

MACH ( 1 ) = 2.490 BETAT ( 4 ) = .560

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1906	.1981	.1732	.1950	.2259	.2711	.3270	.3953	.5120
PMI															
100.000	1.7500	1.3300	.9650	.3770	.3030	.5130	1.2700	1.2700	1.2700	1.1415	1.0392				
X/LB	.0975	.0628	.7300	.7009	.0203	.0048	.9202	.9639	1.0015	1.0392					
PMI															
.0000	.0300	.0000	.0070	.0330	-.0100	-.0590	-.0600	-.1330	-.1100	-.1460					
00.000	.0070	.0330	-.0050	.0020	.0410	.0230	.0190	.0190	.0190	.0190					
70.000	.0330	.0020	.0070	.0720	.0390	.0100	.0100	.0100	.0100	.0100					
90.000	.0020	.0070	.0240	.0760	.0200	.0110	.0110	.0110	.0110	.0110					
105.000															
110.000															
120.000	.0070	.0490	.2710	.1700	-.0110	.0170	.0500	.0500	.0500	.0500					
130.000															
135.000															
140.000	.0070	.0340	.4570	.3140	.1500	.1000	.1000	.1000	.1000	.1000					
160.000	.0070	.0090	.2250	.4100	.3230	.2500	.1230	.1230	.1230	.1230					
180.000	.0090	.0090	.0540												

MACH ( 1 ) = 2.490 BETAT ( 5 ) = 4.330

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1906	.1981	.1732	.1950	.2259	.2711	.3270	.3953	.5120
PMI															
.0000	1.7500	.9070	.4030	.0410	.0600	.2130	.1070	.1070	.1070	.1070					
20.000	.0070	.0300	.0300	.0530	.0720	.0790	.0800	.0800	.0800	.0800					
40.000	.0070	.0070	.0070	.0530	.0790	.0790	.0790	.0790	.0790	.0790					
50.000	.0070	.0070	.0070	.0530	.0790	.0790	.0790	.0790	.0790	.0790					
70.000															
90.000	1.0520	.4700	.0600	.0200	.0740	.0740	.0740	.0740	.0740	.0740					
120.000															
142.000															
150.000															
157.000															
162.000															
165.000															
169.000															
172.000															
180.000	1.7500	1.3300	.0600	.3700	.3030	.5320	1.1730	1.2670	1.2670	1.1415	1.0392				
X/LB	.0075	.0628	.7300	.7009	.0203	.0048	.9202	.9639	1.0015	1.0392					
PMI															
.0000	.0490														
.0070	.0090	.0290	-.0060	-.0670	-.0000	-.1100	-.1300	-.1300	-.1300	-.1300					





## AMES 87-757 IA9 OEA + S3 + T9 ORBITER FUSELAGE

(RBNS11)

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 8.460

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
165.1440		-0.5880	.1200	.4010	.1600	.1130	.0430			
180.1400		-0.6250	-0.0290	.0770						

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.600

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.0375	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.000	1.6870	.9780	.3970	.1400	.0880	.2880		.1470	.1170	.1680	.1440	.1260	.1440	.1260	.1440
20.1440		.3720	-0.270	.0510	.2120		.1170	.1170	.1440	-0.0290	-0.0150	-0.0110			
40.1440		.3770	-0.0010	.0110	.0930		.1910	.1910	.1680	-0.0670	-0.1110	.0390			
55.1440		.3620	-0.0300	-0.1110	.0660		.1930	.1930	.1680	-0.0380	-0.0770	-0.0620			
70.1440		.3400	-0.0320	-0.0160	.0210		.1680	.1680	.1440	-0.1220	-0.1240	-0.0970			
90.1440		.9330	.3590	.0340	-0.0280	.0410		.6410	.6410	-0.0890	-0.0890	-0.0890			
120.1440		.4640	.1160	.0890	.0650		.9290		.8810						
142.1440		.5790	.2410	.2480	.3290				.9810						
157.1440						1.1360									
162.1440															
165.1440															
169.1440															
172.1440															
180.1440	1.6870	1.3430	.6540	.3670	.3790	.5570		1.2430							

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.848

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
.000	.0080									
40.1440	-0.0110	.0140	-0.0750	-0.1040	-0.1420	-0.1540				
70.1440		.0330	.0410	.0250	.0390	.0410	-0.0200			
90.1440		.0290	.0310	.0540	.0240	-0.0790	-0.0270			
110.1440			.0960	.0340	.0260	-0.0240	-0.0240			
120.1440		.0230	.0130	.0330	-0.0830	-0.0820	-0.0510			
130.1440			.4290	.3910	-0.0370	-0.0650	-0.0590			
150.1440		-0.0890	-0.0550	.0530	.1840	.1250	.0380			
165.1440		-0.0850	.0640	.2160	.0640	.0330	-0.0360			
180.1440		-0.0740	-0.0580	.0460						



## AMES 87-707 IA9 O2A + S3 + T9 ORBITER FUSELAGE (R0NB11)

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.410

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1561	.1732	.1956	.2711	.3200	.3953	.5120
PHI														
142.000										.2230				
150.000									1.1320					
157.000							1.3490							
162.000									1.2080					
165.000														
169.000														
172.000									1.1350					
180.000	1.6920	1.4680	.7050	.4010	.3760	.4970	1.3040		1.4640					

X/LB .5875 .6626 .7380 .7869 .8283 .8848 .9282 .9639 1.0015 1.0392

PHI

142.000														
148.000														
150.000														
154.000														
158.000														
162.000														
165.000														
169.000														
172.000														
180.000	1.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1561	.1732	.1956	.2711	.3200	.3953	.5120

MACH ( 2 ) = 2.999

BETAT ( 3 ) = -4.260

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1561	.1732	.1956	.2711	.3200	.3953	.5120
PHI														
142.000														
150.000														
157.000														
162.000														
165.000														
169.000														
172.000														
180.000	1.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1561	.1732	.1956	.2711	.3200	.3953	.5120



AMES 87-707 IA9 OEA + S3 + T9 ORBITER FUSELAGE

(RB8B11)

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .150

SECTION ( 1 ) ORBITER FUSELAGE	DEPENDENT VARIABLE CP			
X/LB	.5873	.6626	.7380	.7869 .8283 .8646 .9262 .9639 1.0015 1.0392
PHI				.1920 .1471
70.1440	.0150	-.0110	-.0100	.0210 .0320 .0140 .0140
90.1440	.0390	.0130	.0480	.0570 .0990 .0420 .0270
105.1440		.1070	.0650	.0610 .0400 .0210
115.1440		.1470	.0410	.2280 .1880 .1440 -.1020 .0430
125.1440		.0990	.1430	.0240 .0390
135.1440		.0320	.2140	.0910 .1260
150.1440		.0320	.1310	.3230 .2550 .2310 .1360
165.1440		.0170	.1030	.0430

MACH ( 2 ) = 2.999 BETAT ( 5 ) = .400

SECTION ( 1 ) ORBITER FUSELAGE	DEPENDENT VARIABLE CP			
X/LB	.0000	.0075	.0166	.0339 .0612 .1355 .1506 .1561 .1732 .1058 .2259 .2711 .3214 .3952 .5120
PHI				.1360 .1210 .0770 .0770 .1620 .1680 .1550 .7820 1.0510 .1360 1.1960
20.1440	1.8990	.9940	.4110	.1480 .1430 .1890
40.1440		.4520	.1410	.1430 .1250
55.1440		.4580	.0300	.1610 .1610
70.1440		.4780	.0810	.1680 .1680
90.1440	1.1340	.5170	.5680	.1390 .1380
120.1440		.6190	.2080	.1510
142.1440		.6690	.2910	.3180
150.1440				1.0510
157.1440				.1360
162.1440				.1360
165.1440				.1360
169.1440				.1360
172.1440				.1360
180.1440	1.8990	1.4980	.7680	.3620 .4790 1.1960
X/LB	.5873	.6626	.7380	.7869 .8283 .8646 .9262 .9639 1.0015 1.0392

SECTION ( 1 ) ORBITER FUSELAGE	DEPENDENT VARIABLE CP			
X/LB	.0000	.0075	.0166	.0339 .0612 .1355 .1506 .1561 .1732 .1058 .2259 .2711 .3214 .3952 .5120
PHI				.1360 .1210 .0770 .0770 .1620 .1680 .1550 .7820 1.0510 .1360 1.1960
20.1440	1.8990	.9940	.4110	.1480 .1430 .1890
40.1440		.4520	.1410	.1430 .1250
55.1440		.4580	.0300	.1610 .1610
70.1440		.4780	.0810	.1680 .1680
90.1440	1.1340	.5170	.5680	.1390 .1380
120.1440		.6190	.2080	.1510
142.1440		.6690	.2910	.3180
150.1440				1.0510
157.1440				.1360
162.1440				.1360
165.1440				.1360
169.1440				.1360
172.1440				.1360
180.1440	1.8990	1.4980	.7680	.3620 .4790 1.1960
X/LB	.5873	.6626	.7380	.7869 .8283 .8646 .9262 .9639 1.0015 1.0392

AMES 87-707 IA9 OCA + S3 + T9 ORBITER FUSELAGE

(RBNB11)

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.414

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5973 .6626 .7389 .7869 .8283 .8848 .9262 1.0015 1.0392

PHI

165.1440 -.0180 .0670 .3730 .2220 .1200 .0720  
180.1440 .0190 .0080 .0460

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.580

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .0000 .0075 .0188 .0339 .0612 .1355 .1906 .1581 .1732 .1958 .2259 .2711 .3200 .3953 .5120

PHI

.0000 1.0825 .9981 .4180 .1200 .0380 .2090 .2090 .1480 .1270 .1050 .0430 .0420  
25.1440 .4220 .0120 .0360 .2090 .2090 .1120 .0890 .0890 .0690 .0690 .0120 .0120 .0120  
40.1440 .4230 .0110 .0360 .0690 .0690 .0540 .0540 .0540 .0540 .0540 .0540 .0540 .0540  
55.1440 .4270 .0110 .0360 .0390 .0390 .0380 .0380 .0380 .0380 .0380 .0380 .0380 .0380  
70.1440 .4270 .0290 .0290 .0310 .0310 .0380 .0380 .0380 .0380 .0380 .0380 .0380 .0380  
85.1440 1.1830 .4610 .0660 .0150 .0130 .0380 .0380 .0380 .0380 .0380 .0380 .0380 .0380  
120.1440 .5980 .1780 .1330 .1180 .1220 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460  
142.1440 .6490 .2770 .2690 .3190 .7350 .7350 .7350 .7350 .7350 .7350 .7350 .7350 .7350  
157.1440 1.0480 1.0480 1.0480 1.0480 1.0480 1.0480 1.0480 1.0480 1.0480 1.0480 1.0480 1.0480 1.0480  
182.1440 1.1250 1.1250 1.1250 1.1250 1.1250 1.1250 1.1250 1.1250 1.1250 1.1250 1.1250 1.1250 1.1250  
185.1440 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510  
189.1440 1.2270 1.2270 1.2270 1.2270 1.2270 1.2270 1.2270 1.2270 1.2270 1.2270 1.2270 1.2270 1.2270  
172.1440 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510 1.4510  
180.1440 1.8680 1.4820 .7140 .3640 .3780 .4580 .4580 .4580 .4580 .4580 .4580 .4580 .4580 .4580

X/LB .5973 .6626 .7389 .7869 .8283 .8848 .9262 .9639 1.0015 1.0392

PHI

.0000 -.0180 .0670 .3730 .2220 .1200 .0720 .0720 .0720 .0720 .0720 .0720 .0720 .0720  
40.1440 -.0190 .0080 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460  
70.1440 .0190 .0070 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460  
85.1440 .0210 .0070 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460  
110.1440 .0210 .0070 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460 .0460  
120.1440 .0230 .0230 .0390 .0390 .0390 .0390 .0390 .0390 .0390 .0390 .0390 .0390 .0390  
125.1440 .5570 .4160 .0340 .0340 .0340 .0340 .0340 .0340 .0340 .0340 .0340 .0340 .0340  
135.1440 .0220 .0340 .0670 .0670 .0670 .0670 .0670 .0670 .0670 .0670 .0670 .0670 .0670  
150.1440 .0380 .0380 .0380 .0380 .0380 .0380 .0380 .0380 .0380 .0380 .0380 .0380 .0380  
180.1440 .0170 .0320 .0370 .0370 .0370 .0370 .0370 .0370 .0370 .0370 .0370 .0370 .0370

## AMES 87-707 IA9 OEA + S3 + T9 ORBITER FUSELAGE

(RBNB11)

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.750

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CF

X/LB	.0400	.0475	.0188	.0339	.0642	.1355	.1506	.1581	.1732	.1938	.2259	.2711	.3204	.3952	.5120
PHI															
1.000	1.0630	1.1440	.4170	.0490	.0340	.1970		.1700		.1160	.0650	.0880	.0330	.0330	.0190
20.000		.3910	.0100	.0300	.1700		.1210		.0750	.0040	.0210	.0200	.0445	.0280	.0280
40.000		.4010	.0480	-.0460	.0860		.0480		.0020	.0020					
55.000		.3930	.1280	-.0780	.0180		.0480		.0600	.0270	.0360	.0270	.0270	.0270	.0150
70.000		.3810	.0460	-.0180	.0150		.0280		.0090	.0100	.0000	.0170	.0170	.0170	.0150
90.000		1.1170	.4080	-.0450	-.0060		-.0460		-.0150	-.0090	-.0070	-.0080	-.0080	-.0080	-.0080
120.000			.5080	.1460	-.0190	.0860		.0320		.0300					
142.000			.6130	.2990	.2530	.2980		.6640		-.0190	-.0740	-.0440	-.0290	-.0290	.0130
150.000						.9910									
157.000								1.0280							
162.000								.0100							
165.000															
169.000															
172.000		1.0630	1.4680	.6920	.3720	.3720	1.1400		.4220						
180.000		.5970	.6826	.7380	.7860	.8280	.9262	.9639	1.0015	1.0362					

X/LB	.0000	.0370	.0110	-.0600	-.1300	-.1900	-.1900	-.1620	-.1220	-.1100
PHI										
40.000	-.0030	-.0370	-.0110	-.0600	-.1300	-.1900	-.1900	-.1620	-.1220	-.1100
70.000		.0120	-.0030	-.0600	.0190	-.0180	-.0430			
90.000		-.0080	-.0190	-.0210	.0290	-.0270	-.0270			
105.000			.0550	.0180	-.0330	-.0580	-.0230			
110.000							-.0290			
120.000		-.0030	-.0080	.0330	.0180	-.0120	-.0390			
135.000			.0180	.0280	-.0060	-.0100	-.0720			
150.000		-.0600	-.0690	.0570	.0810	.0160	.0260			
165.000		-.0580		.0500	.0370	.0430	-.0210	-.0340		
180.000		-.0680	-.0590	-.0210						

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -6.710

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CF

X/LB	.0000	.0075	.0188	.0339	.0642	.1355	.1506	.1581	.1732	.1938	.2259	.2711	.3204	.3952	.5120
PHI															
1.000	2.1020	1.0700	.4410	.0530	.0410	.1180		.2070		.1320	.0820	.1010	.0650	.0650	.0470
20.000		.5400	.0730	.0270	.1140		.2100		.2070	.0070	.0270	.0270	.0270	.0270	.0270
40.000		.7490	.1330	.1110	.2320		.2700		.4260	.0270	.0270	.0270	.0270	.0270	.0270
55.000		.6750	.2610	.2190	.2190		.2590		.3190	.0270	.0270	.0270	.0270	.0270	.0270
70.000		.9750	.3330	.2870	.2530		.2930		.2940	.0270	.0270	.0270	.0270	.0270	.0270
90.000		1.7720	1.0520	.4040	.2920	.2870	.2930		.3010	.0270	.0270	.0270	.0270	.0270	.0270
120.000			1.0630	.4830	.4140	.4410		.5080							











## AVES 87-7J7 IAS O2A + S3 + T9 ORBITER FUSELAGE

(RBN811)

MACH ( 3 ) = 3.942 BETAT ( 6 ) = 6.694

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
144	2.0770	1.1070	.4180	.0430	.0340	.1230		.1680		.1680	.0870	.1190	.0860	.0630	.0330
201.040			.4130	.0290	.0330	.1180		.1330		.1420	.0420	.0470	.0330	-.0480	-.0580
401.040			.4490	.0290	-.0470	.0710		.0990		.0990	.0190	.0470	.0330	-.0480	-.0580
55.040			.4590	.0290	.0490	.0380		.0490		.0490	.0770	.0470	.0330	-.0480	-.0580
70.040			.4640	.0590	.0130	.0380		.0110		.0110	.0240	-.0240	-.0450	-.0240	.0160
90.040			1.1400	.0030	.0370	.0330		.0470		-.0190	-.0670	-.0670	-.0590	-.0130	.0130
120.040				.0310	.0470	.1290		.1240		.0330	.0330	-.0530	-.0560	-.0580	-.0540
142.040				.0670	.0270	.0240		.0720		.0120	.0120	-.0430	-.0280	-.0220	-.0430
150.040							1.1200								
157.040								1.1470							
162.040									1.1470						
163.040										1.2030					
169.040											1.2030				
172.040												1.5660			
180.040													1.0100		
2.0770	1.6260	.7360	.4030	.3810	.4320		1.2190								
X/LB	.5873	.6826	.7300	.7869	.8283	.8848	.9282	.9639	1.0115	1.0392					

PHI

144	0.0000														
201.040	-.0110	-.0120	-.0160	-.0220	-.0210	-.0210		-.1200		-.0970					
401.040	.0030	.0030	-.0110	-.0170	-.0120	-.0340		-.0440		-.0940					
55.040	.0000	-.0100	-.0190	.0270	-.0230	-.0380		-.0470							
70.040			.0370	.0280	-.0210	-.0500		-.0130							
90.040			.0440	.0160	-.0770	-.0730		-.0170		.0560					
120.040			.4960	.3130	-.0770	-.0790		-.0320							
135.040			-.0180	-.0290	.0870	.0510		.0280							
150.040			-.0290	.0320	.0170	.0410		-.0410							
180.040			-.0410	-.0330	.0240										

MACH ( 3 ) = 3.942 BETAT ( 7 ) = 6.940

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
144	2.0749	1.1050	.4290	.0460	.0360	.1170		.1920		.1920	.1250	.1280	.0940	.0570	.0410
201.040			.4020	.0300	.0320	.0880		.1280		.0520	.0520	.0550	.0190	-.0520	-.0450
401.040			.4180	.0270	-.0110	.0510		.0680		.0590	.0590	.0190	-.0190	-.0520	-.0450
55.040			.4190	.0270	-.0170	.0230		.0320		.0590	.0590	.0140	-.0280	-.0280	-.0110
70.040			.4270	.0230	-.0410	.0190		.0180		.0140	.0140	-.0280	-.0440	-.0280	-.0110
90.040			1.0980	.0380	.0590	.0130		-.0180		-.0310	-.0310	-.0680	-.0680	-.0670	-.0280
120.040				.0490	.0160	.0130		.0130		.0130	.0130	-.0540	-.0710	-.0710	-.0660





















AMES 87-707 IAS O2A + S3 + T9 ORBITER FUSELAGE

(R0NB812)

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.270

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120
PHI	180.000	1.7150	1.2840	.5750	.2910	.2720	.3490	1.2410						
X/LB	.5073	.6626	.7300	.7869	.8203	.8848	.9262	.9039	1.0015	1.0392				
PHI	-0.1170	.0400	.0400	.1390	.0850	.0340	-.0160							
20.000	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120
40.000	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120
60.000	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120
80.000	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120
100.000	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120
120.000	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120
140.000	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120
160.000	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120
180.000	.6000	.6075	.6100	.6339	.6502	.6555	.6506	.6561	.6732	.6956	.2711	.3200	.3953	.5120

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .020

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120
PHI	1.7370	.9120	.3750	.0040	.0190	.0170	.0210	.0180	.0210	.0210	.0210	.0210	.0210	.0210
20.000	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120
40.000	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120
60.000	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120
80.000	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120
100.000	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120
120.000	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120
140.000	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120
160.000	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120
180.000	.0000	.0075	.0100	.0339	.0502	.0555	.0506	.0561	.0732	.0956	.2711	.3200	.3953	.5120

PHI

-.0970  
-.1180



AMES 07-707 IAS O2A + S3 + T9 ORBITER FUSELAGE (RBNB12)

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .020

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI										
70.140	-.0240	-.0480	-.0720	-.0960	-.1200	-.1440	-.1680	-.1920	-.2160	-.2400
90.140	-.0480	-.0960	-.1440	-.1920	-.2400	-.2880	-.3360	-.3840	-.4320	-.4800
110.140	-.0720	-.1440	-.2160	-.2880	-.3600	-.4320	-.5040	-.5760	-.6480	-.7200
120.140	-.0960	-.1920	-.2880	-.3840	-.4800	-.5760	-.6720	-.7680	-.8640	-.9600
135.140	-.1440	-.2880	-.4320	-.5760	-.7200	-.8640	-.10080	-.11520	-.12960	-.14400
150.140	-.1920	-.3840	-.5760	-.7680	-.9600	-.11520	-.13440	-.15360	-.17280	-.19200
165.140	-.2400	-.4800	-.7200	-.9600	-.12000	-.14400	-.16800	-.19200	-.21600	-.24000
180.140	-.2880	-.5760	-.8640	-.11520	-.13440	-.15360	-.17280	-.19200	-.21600	-.24000

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.380

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.6000	.6075	.6180	.6339	.6612	.6955	.7306	.7681	.8088	.8529	.8953	.9420
PHI												
20.140	1.7120	.9580	.3730	.0210	.0080	.0010	.0000	.0000	.0000	.0000	.0000	.0000
40.140	.3670	.0150	.0070	.0040	.0020	.0010	.0000	.0000	.0000	.0000	.0000	.0000
60.140	.0030	.0110	-.0050	.0020	.0010	.0000	.0000	.0000	.0000	.0000	.0000	.0000
80.140	.4170	.0100	-.0090	.0020	.0010	.0000	.0000	.0000	.0000	.0000	.0000	.0000
100.140	.4190	.0310	-.0090	.0040	.0020	.0010	.0000	.0000	.0000	.0000	.0000	.0000
120.140	1.0300	.4420	.0810	.0490	.0220	.0100	.0050	.0020	.0010	.0000	.0000	.0000
142.140	.5920	.1470	.0930	.0490	.0260	.0130	.0060	.0030	.0010	.0000	.0000	.0000
160.140	.5590	.2130	.2520	.2420	.2110	.1680	.1190	.0780	.0440	.0240	.0120	.0060
180.140	.5970	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392	1.0770	1.1148

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.380

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.6000	.6075	.6180	.6339	.6612	.6955	.7306	.7681	.8088	.8529	.8953	.9420
PHI												
20.140	-.0130	-.0260	-.0390	-.0520	-.0650	-.0780	-.0910	-.1040	-.1170	-.1300	-.1430	-.1560
40.140	-.0260	-.0520	-.0780	-.1040	-.1300	-.1560	-.1820	-.2080	-.2340	-.2600	-.2860	-.3120
60.140	-.0390	-.0780	-.1170	-.1560	-.1950	-.2340	-.2730	-.3120	-.3510	-.3900	-.4290	-.4680
80.140	-.0520	-.1040	-.1560	-.2080	-.2600	-.3120	-.3640	-.4160	-.4680	-.5200	-.5720	-.6240
100.140	-.0650	-.1300	-.1950	-.2600	-.3250	-.3900	-.4550	-.5200	-.5850	-.6500	-.7150	-.7800
120.140	-.0780	-.1560	-.2340	-.3120	-.3900	-.4680	-.5460	-.6240	-.7020	-.7800	-.8580	-.9360
142.140	-.0910	-.1820	-.2730	-.3640	-.4550	-.5460	-.6370	-.7280	-.8190	-.9100	-.10010	-.11020
160.140	-.1040	-.2080	-.3120	-.4160	-.5200	-.6240	-.7280	-.8320	-.9360	-.10400	-.11440	-.12480
180.140	-.1170	-.2340	-.3510	-.4680	-.5850	-.7020	-.8190	-.9360	-.10530	-.11760	-.13000	-.14240





AMES 07-707 IA9 ORA + S3 + T9 ORBITER FUSELAGE

(RBN812)

MACH ( 2 ) = 2.899 BETAT ( 7 ) = 0.710

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1075	.5108	.0339	.0602	.1355	.1306	.1361	.1732	.1956	.2239	.2711	.3200	.3953	.5120
PHI															
.140	1.0680	.9100	.3750	.0090	.0270	.0940		.1630		.0990	.0730	.0730	.0730	.0110	-.0010
20.140		.3450	-.0060	.0260	.0670		.1160		.0580						
40.140		.3490	-.0070	-.0210	.0300		.0410		-.0160	-.0250	-.0460	-.0670	-.0670	-.0710	
55.140		.3380	-.0080	-.0320	.0120		.0260		.0450						
70.140		.3220	-.0090	-.0390	-.0050		.0160		.0320	-.0370	-.0640	-.0390	-.0390	-.0210	
90.140		.0970	.3360	.0080	-.0290	-.0060	-.0350		-.0590	-.0960	-.0970	-.0800	-.0800	-.0300	
120.140		.4120	.0620	.0600	.0330		.0440		-.0370	-.0100	-.0100	-.0940	-.0940	-.0750	
142.140		.4900	.1770	.1690	.1960		.5240		-.0410	-.0090	-.0730	-.0550	-.0550	-.0460	
157.140						.8150									
162.140						.8510									
165.140						.9120									
169.140															
172.140						.9150									
180.140	1.0680	1.2580	.5560	.2730	.2650	.3250		1.1840		-.0340	-.0440	-.0330	-.0540	-.0770	
X/LB	.5873	.6626	.7360	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

PHI	.0000	-.0380	-.0680	-.1080	-.1480	-.1880	-.2280	-.2680	-.3080	-.3480	-.3880	-.4280	-.4680	-.5080	-.5480
.140															
20.140															
40.140															
55.140															
70.140															
90.140															
110.140															
125.140															
135.140															
150.140															
165.140															
180.140															

MACH ( 3 ) = 3.512 BETAT ( 1 ) = -0.740

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1075	.5108	.0339	.0602	.1355	.1306	.1361	.1732	.1956	.2239	.2711	.3200	.3953	.5120
PHI															
.140	1.0180	.9490	.3980	.0340	.0060	.0940		.1690		.1310	.0810	.0810	.0810	.0430	.0190
20.140		.4860	.0660	.0470	.0940		.1390		.1750						
40.140		.6770	.1300	.0980	.1770		.1270		.2460		.1480	.1780	.1470	.0540	
55.140		.7900	.1900	.1920	.1740		.2360		.4030						
70.140		.6700	.2920	.2160	.2050		.2250		.3010	.2400	.1450	.1190	.1190	.0100	
90.140		1.5680	.9220	.3440	.2350		.2250		.2540	.1200	.1450	.1110	.1110	.0810	
X/LB	.0000	.1075	.5108	.0339	.0602	.1355	.1306	.1361	.1732	.1956	.2239	.2711	.3200	.3953	.5120







DATE 17 SEP 73 TABULATED PRESSURE DATA - IASC

AMES 87-707 IAS OBA + S3 + T9 ORBITER FUSELAGE

(RBN612)

MACH ( 3 ) = 3.5/2 BETAT ( 4 ) = .050

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI				.1310	.1940	.1390	.1170	.0650		
165.000	.0020									
180.000	-.0070	.0030								

MACH ( 3 ) = 3.5/2 BETAT ( 5 ) = 4.460

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0612	.1055	.1516	.1581	.1732	.1938	.2259	.2711	.3214	.3953	.5120
PHI															
1.8480	.9440	.3720	.0300	.0280	.0820				.1310		.0580	.0080	.0080	.0500	.0220
20.000	.3760	.0180	.0250	.0610	.0610				.1160		.0350	.0130	.0570	.0340	.0490
40.000	.4220	.0190	.0310	.0520	.0340				.1410		.0380	.0130	.0570	.0340	.0490
55.000	.4460	.0180	.0460	.0340	.0370				.1460		.0330	-.0190	-.0380	-.0480	.0300
70.000	.4490	.0460	.0460	.0370	.0370				-.0460		-.0420	-.0480	-.0540	-.0510	.0160
90.000	.4800	.0890	.0300	.0370	.0370				-.0430		.0370	-.0450	-.0580	-.0620	.0480
120.000	.5420	.1710	.1180	.1160	.1160				.0170	.0640					
142.000	.5980	.2390	.2120	.2540	.2540				.6560						
150.000						1.0000									
157.000									.9800						
162.000															
165.000															
169.000															
172.000									1.0310						
180.000	1.8480	1.3920	.6140	.3030	.2820	.3240			1.34						

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI										
1.000	-.0130									
40.000	-.0290	-.0160	-.0010	-.0280	-.0440	-.0740				
70.000	-.0270	-.0460	-.0410	-.0340	-.0220	-.0370	-.0320			
90.000	-.0480	-.0230	-.0120	.0460	-.0130	-.0280	-.0230			
109.000			.0370	.0490	-.0120	-.0310	-.0290			
110.000								.0620		
120.000	-.0070	-.0470	.0860	.0560	-.0210	-.0550	-.0360	-.0260		
120.000			.0370	.0370	-.0110	-.0290	-.0460			
135.000			.0880	.4110	.0410	.0240	.0390			
150.000	-.0270	-.0210	.0880	.4110	.0410	.0240	.0390			
165.000	-.0370	.0160	.0160	.0160	.0160	.0160	.0160			
180.000	-.0270	-.0360	.0190							

AMES 87-707 1A9 OCA + S3 + T9 ORBITER FUSELAGE

(RBNB12)

MACH (3) = 3.542 BETAT (6) = 6.66J

## SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144J	.1475	.15188	.15339	.15612	.1555	.1506	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI															
144	1.8180	.9430	.3710	.10310	.01120	.10830		.1980		.0830	.0620	.0560	.0380	.0380	.1470
20.144			.3620	.1180	.1470	.0710		.1180		.1340					
40.144			.3680	.1140	-.1220	.1430		.10310		.1440	-.1160	-.1440	-.1160	-.1030	-.1030
55.144			.3990	.1140	-.1110	.1130		.1240		.1260					
70.144			.3940	.1280	-.1430	.1180		-.1440		.1470	-.1440	-.1610	-.1280	-.1430	-.1430
91.144		1.1020	.4170	.1060	.1420	.1130		-.1120		-.1030	-.1080	-.1660	-.1660	-.1030	-.1030
120.144			.4870	.1350	.1830	.1680		.1650		.1410	-.1690	-.1690	-.1710	-.1650	-.1650
142.144								.5930		-.1110	-.1640	-.1440	-.1440	-.1030	-.1030
151.144			.5570	.2120	.1920	.2270	.9390								
157.144								.9630							
162.144															
165.144															
169.144								1.1150							
172.144							.9970								
180.144	1.8190	1.3740	.8120	.2960	.2730	.3140		1.3250		-.1240	-.1290	-.1230	-.1210	-.1480	-.1480

MACH (3) = 3.542 BETAT (7) = 6.66J

## SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144J	.1475	.15188	.15339	.15612	.1555	.1506	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI															
144	-.1060							-.1340		-.1620					
40.144	-.0320	-.0350	-.0180	-.0420	-.0950	-.1340									
70.144		-.0320	-.0480	-.1420	-.1470	-.1690	-.1030								
90.144		-.0190	-.1270	-.1220	.1410	-.1670	-.1030								
105.144				.1220	-.1040	-.1320	-.1030								
110.144		-.1230	-.1070	.1480	-.1040	-.1690	-.1420								
120.144				.3240	.2870	-.0940	-.1710	-.1220							
135.144		-.1090	-.1030	.1290	.1420	.1110	-.1420	.1160							
150.144		-.1090	-.1030	-.1010	.1620	.1470	-.1090	-.1240							
180.144		-.1630	-.1030	-.1030											

MACH (3) = 3.542 BETAT (7) = 6.66J

## SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144J	.1475	.15188	.15339	.15612	.1555	.1506	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5120
PHI															
144	1.7880	.9390	.3730	.1030	.1400	.1630		.1720		.1160	.1580	.1410	.1390	.1490	.1490
20.144			.3480	.1120	-.1420	.1610		.1160		.1440					
40.144			.3580	.1110	-.0310	.1290		.1440		-.1010	-.1060	-.1590	-.1680	-.1630	-.1630
55.144			.3540	.1090	-.1230	.1470		.1480		.1210					
70.144			.3390	.1100	-.1230	.1680		-.1210		-.1210	-.1030	-.1660	-.1030	-.1010	-.1010
91.144		.9480	.3590	.1030	-.1030	-.1070		-.1030		-.1070	-.1080	-.1760	-.1080	-.1050	-.1050
120.144			.4310	.1190	.1670	.1650		.1490		-.1260	-.1680	-.1790	-.1610	-.1610	-.1610

AVES 87-707 1A9 02A + S3 + T9 ORBITER FUSELAGE (RBND12)

MACH (3) = 3.502 BETAT (7) = 8.88U

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1596	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5124
PHI															
142.000															
150.000										.0200					
157.000									.0200						
162.000								.0540							
165.000															
169.000															
172.000															
180.000									1.2944						
1.7000	1.3500	.9920	.2820	.2640	.2930		.9170								
1.5873	.6626	.7380	.7889	.8283	.8848	.9262	.9639	1.0015	1.0392						

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1596	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5124
PHI															
142.000															
150.000															
157.000															
162.000															
165.000															
169.000															
172.000															
180.000															
1.7000	1.3500	.9920	.2820	.2640	.2930		.9170								
1.5873	.6626	.7380	.7889	.8283	.8848	.9262	.9639	1.0015	1.0392						

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1596	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5124
PHI															
142.000															
150.000															
157.000															
162.000															
165.000															
169.000															
172.000															
180.000															
1.7000	1.3500	.9920	.2820	.2640	.2930		.9170								
1.5873	.6626	.7380	.7889	.8283	.8848	.9262	.9639	1.0015	1.0392						



## REFERENCE DATA

SREF = 2.4210 96. FT. WARP = 28.5300 INCHES  
 LREF = 39.8490 INCHES WARP = 15.0000 INCHES  
 BREF = 39.8490 INCHES ZWAP = 15.0000 INCHES  
 SCALE = 1/1000 SCALE

MACH ( 1 ) = 2.496

BETA ( 1 ) = -0.420

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.1660	.1675	.1686	.1699	.1692	.1355	.1306	.1561	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI	1.4270	.9100	.4530	.0470	.0770	.2660	.1590	.1590	.2180	.3410	.3960	.3990	.4590	.1430	.8420
21.140	.5150	.1690	.0990	.2690	.2690	.2690	.1590	.1590	.2180	.3410	.3960	.3990	.4590	.1430	.8420
40.140	.6030	.1720	.1480	.2290	.4310	.3960	.3990	.4590	.1430	.8420	.1430	.1430	.1430	.1430	.1430
55.140	.7410	.2200	.2120	.3920	.3990	.4590	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430
70.140	.7410	.2200	.2120	.3920	.3990	.4590	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430
92.140	1.2410	.7340	.2490	.1920	.2890	.3960	.3990	.4590	.1430	.8420	.1430	.1430	.1430	.1430	.1430
120.140	.6800	.2710	.2370	.3960	.3990	.4590	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430
142.140	.6140	.2260	.2330	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150
150.140	.6140	.2260	.2330	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150
157.140	.6140	.2260	.2330	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150
162.140	.6140	.2260	.2330	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150
165.140	.6140	.2260	.2330	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150
169.140	.6140	.2260	.2330	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150
172.140	.6140	.2260	.2330	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150	.3150
180.140	1.4270	1.0250	.4330	.1930	.1080	.2730	.6820	.9609	1.1415	1.0392	1.0392	1.0392	1.0392	1.0392	1.0392
X/LB	.5875	.6826	.7340	.7869	.8263	.8648	.9262	.9609	1.1415	1.0392	1.0392	1.0392	1.0392	1.0392	1.0392
PHI	-0.0220	.0000	.2450	.1630	.1270	.0460	-.1360	-.1160	-.1120	-.1160	-.1160	-.1160	-.1160	-.1160	-.1160
40.140	.1120	.0000	.2450	.1630	.1270	.0460	-.1360	-.1160	-.1120	-.1160	-.1160	-.1160	-.1160	-.1160	-.1160
70.140	-0.0150	-0.0250	-0.0200	.0100	.0410	.0100	.0100	.0100	.0100	.0100	.0100	.0100	.0100	.0100	.0100
90.000	-0.0020	-0.0130	.0160	.0960	.0720	.0480	.0480	.0480	.0480	.0480	.0480	.0480	.0480	.0480	.0480
105.140	.0000	.0000	.1300	.1570	.0740	.0410	.0410	.0410	.0410	.0410	.0410	.0410	.0410	.0410	.0410
110.140	-0.0140	-0.0280	.0370	.3290	.0890	.0410	.0410	.0410	.0410	.0410	.0410	.0410	.0410	.0410	.0410
125.140	.0000	.0000	.2440	.2690	-0.0210	-0.0520	-0.0410	-0.0410	-0.0410	-0.0410	-0.0410	-0.0410	-0.0410	-0.0410	-0.0410
135.140	-0.0330	-0.0360	.0360	.0580	-0.0930	-0.0430	-0.0430	-0.0430	-0.0430	-0.0430	-0.0430	-0.0430	-0.0430	-0.0430	-0.0430
150.140	-0.0340	.0000	.1450	.1320	.0770	.1480	.1480	.1480	.1480	.1480	.1480	.1480	.1480	.1480	.1480
165.140	-0.1220	-0.1060	-0.1450	-0.1450	-0.1450	-0.1450	-0.1450	-0.1450	-0.1450	-0.1450	-0.1450	-0.1450	-0.1450	-0.1450	-0.1450
180.140															

## PARAMETRIC DATA

ALPHAT = .1660 ORBINIC = .5000  
 RUDDER = -15.1660 ELEVON = .1660  
 RUDFLR = .1660

## AVES 87-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBMB13)

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.300

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0682	.1355	.1506	.1581	.1752	.1958	.2259	.2711	.3210	.3953	.5120
PHI															
.140	1.4390	.9280	.4950	.0410	.0690	.0120			.1390	.0660	.0810	.0350	.0220	-.0560	
20.000			.5120	.0760	.1040	.1810			.1640	.0630					
40.000			.6240	.1520	.1340	.1850			.1980	.0680	.0390	.0410			
55.000			.6960	.1890	.1990	.3720			.2960	.2220					
70.000			.6750	.1940	.1490	.2140			.3560	.2870	.0950	.0490	.0470	.0040	
90.000	1.1890		.6710	.2010	.1450	.2170			.3140	.3260	.0880	.0170	-.0460	-.0110	
120.000			.6410	.2320	.1960	.2540			.3670	.2270	.0470	-.0430	-.0160	-.0270	
142.000										.0990					
150.000			.5840	.2090	.2140	.2920			.7870	.0430	-.0120	-.0110	-.0480	-.0340	
157.000							.9220								
162.000									.7940						
165.000															
169.000									.7180						
172.000															
180.000	1.4390	1.0320	.4380	.1910	.1870	.2790		.8720	.9370						
X/LB	.5873	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

PHI

.000	-.0410														
40.000	.0680	.0680	.1960	.1210	.0870	-.0290			-.1220						
70.000			-.0390	.0000	.0170	-.0150			-.0130						
90.000			-.1820	-.0430	.0680	.0540	.0270	.0090							
105.000				.0810	.1220	.0520	.0280	-.0430							
110.000									.0240						
120.000			-.0340	-.0400	.2970	.2320	.0590	.0320	.0160						
135.000					.2490	.2710	-.0250	-.0450	-.0340						
150.000			-.0400	-.0440	.0460	.0860	-.0810	-.0230	.0210						
165.000			-.0380		.0570	.1450	.1010	.1280	.0300						
180.000			-.0510	-.0770	-.0460										

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0682	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
PHI															
.140	1.4550	.9010	.4930	.0130	.0410	.0320			.1400	.0660	.0840	.0340	.0210	-.0580	
20.000			.4780	.0420	.0630	.0250			.1850	.0670					
40.000			.5700	.1110	.0760	.0290			.2250	.0840	.0420	.0140	-.0090	-.0630	
55.000			.5940	.1450	.1140	.1740			.2730	.2120					
70.000			.6120	.1400	.1040	.1680			.2420	.2690	.0830	.0650	-.0070	-.0140	
90.000	1.1270		.6030	.1980	.1020	.1710			.2070	.2810	.0770	.0120	-.0190	-.0270	
120.000			.5910	.2040	.1840	.2110			.2920	.1320	.0240	-.0040	-.0210	-.0390	

DATE 17 SEP 73 TABULATED PRESSURE DATA - 1A9C

AMES 87-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE (R8N813)

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI
.1440	.5675	.0188	.0339	.0602	.1355	.1906	.1732	.1958	.2259	.2711	.3200	.3953	.5120							
142.1440	.5970	.1910	.2660	.2660	.8950	.7380	.640	.640	-.1020	-.1440	-.1420	-.1410	-.1420							
150.1440																				
157.1440																				
162.1440																				
169.1440																				
172.1440																				
180.1440	1.4990	1.0480	.4400	.1940	.2660	.8800	.9920	.9920	-.1080	-.1620	-.1680	-.1470	-.1790							
X/LB	.5875	.6826	.7380	.7869	.8263	.8848	.9282	.9639	1.1415	1.1092										

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .160

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI
.1440	.5675	.0188	.0339	.0602	.1355	.1906	.1732	.1958	.2259	.2711	.3200	.3953	.5120							
142.1440	.5970	.1910	.2660	.2660	.8950	.7380	.640	.640	-.1020	-.1440	-.1420	-.1410	-.1420							
150.1440																				
157.1440																				
162.1440																				
169.1440																				
172.1440																				
180.1440	1.4990	1.0480	.4400	.1940	.2660	.8800	.9920	.9920	-.1080	-.1620	-.1680	-.1470	-.1790							
X/LB	.5875	.6826	.7380	.7869	.8263	.8848	.9282	.9639	1.1415	1.1092										

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .160

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI
.1440	.5675	.0188	.0339	.0602	.1355	.1906	.1732	.1958	.2259	.2711	.3200	.3953	.5120							
142.1440	.5970	.1910	.2660	.2660	.8950	.7380	.640	.640	-.1020	-.1440	-.1420	-.1410	-.1420							
150.1440																				
157.1440																				
162.1440																				
169.1440																				
172.1440																				
180.1440	1.4990	1.0480	.4400	.1940	.2660	.8800	.9920	.9920	-.1080	-.1620	-.1680	-.1470	-.1790							
X/LB	.5875	.6826	.7380	.7869	.8263	.8848	.9282	.9639	1.1415	1.1092										

AMES 87-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBMB13)

MACH ( 1 ) = 2.490 BETAT ( 4 ) = .560

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0602	.1355	.1906	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5121
PHI															
180.144	1.4630	1.1480	.4440	.2140	.1940	.2600		.9370							
PHI															
120.144	.5875	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					
PHI															
80.144	-.1080	-.1080		.0400	-.1050	-.1050	-.1050	-.1110							
70.144	-.1680	-.0730	-.1070	-.1070	-.1040	-.1050	-.1030								
60.144	-.1530	-.1570	-.1510	-.1510	-.1510	-.1510	-.1510								
50.144	-.1150	-.1230	-.1280	-.1280	-.1280	-.1280	-.1280								
40.144	-.0330	-.0380	-.0380	-.0380	-.0380	-.0380	-.0380								
30.144	-.0200	-.0240	-.0240	-.0240	-.0240	-.0240	-.0240								
20.144	-.1150	-.1150	-.1150	-.1150	-.1150	-.1150	-.1150								
10.144	-.1130	-.1130	-.1130	-.1130	-.1130	-.1130	-.1130								

MACH ( 1 ) = 2.490 BETAT ( 5 ) = 4.300

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0602	.1355	.1906	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5121
PHI															
180.144	1.4480	.9010	.4150	.0120	.0580	.0450		.1360							
PHI															
140.144	.4120	.1670	.1670	.1670	.1670	.1670		.1150							
130.144	.4110	.0110	.0110	.0110	.0110	.0110		.1190							
120.144	.3090	.1640	.1640	.1640	.1640	.1640		.0370							
110.144	.3560	.1620	-.0120	.0230	.0320	.0320		.1080							
100.144	.0740	.3530	.1420	-.1270	.1480	.1670		.1670							
90.144	.3060	.0720	.1420	.1650											
80.144	.4280	.1270	.1340	.1780											
PHI															
150.144	1.4480	1.0000	.4340	.1910	.1930	.2320		.7380							
140.144	.5875	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					
PHI															
10.144	-.1080	-.1080		.0400	-.1050	-.1050	-.1050	-.1100							
PHI															
10.144	-.1080	-.1080		.0400	-.1050	-.1050	-.1050	-.1100							

DATE 17 SEP 73 TABULATED PRESSURE DATA - IASC ANES 87-707 IAS CEA + S3 + T9 ORBITER FUSELAGE (RBNS13)

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.300 SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP X/LB .5873 .6626 .7386 .7869 .8283 .8849 .9262 .9639 1.0015 1.0392

Table with columns for PHI, X/LB, and CP values for Section 1. Values range from -1.670 to 0.8170 for PHI and -0.0340 to 0.6200 for CP.

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.420 SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP X/LB .0000 .0075 .0168 .0339 .0602 .1355 .1506 .1581 .1732 .1958 .2259 .2711 .3200 .3953 .5120

Table with columns for PHI, X/LB, and CP values for Section 1. Values range from 0.8170 to 0.9290 for PHI and -0.1630 to 0.9290 for CP.

Table with columns for PHI, X/LB, and CP values for Section 1. Values range from -0.0420 to 0.2790 for PHI and -0.1230 to 0.9290 for CP.



DATE 17 SEP 73

TABLULATED PRESSURE DATA - IA9C

(RBN813)

AVES 07-7U7 IA9 O2A + S3 + T9 ORBITER FUSELAGE

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.50U

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP											
X/LB	PHI	.0188	.0339	.0612	.1506	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
1.5010	.8370	.3880	.0430	.0310	.0550	.1890	.0780	.0440	.0630	.0440	.0440	.0440	.0440
20.0000	.4420	.0630	.0330	.0330	.0740	.2580	.0950	.0630	.0630	.0630	.0630	.0630	.0630
40.0000	.6080	.1470	.0970	.2080	.2110	.4110	.2980	.1620	.1620	.1620	.1620	.1620	.1620
55.0000	.7480	.1750	.1650	.2210	.2430	.3830	.3830	.1730	.0770	.0610	.0610	.0610	.0610
70.0000	1.3000	.2430	.1740	.2160	.2440	.3590	.3590	.1620	.0630	.0510	.0510	.0510	.0510
90.0000	.7080	.2890	.2320	.2740	.3850	.1850	.1850	.0610	.0580	.0210	.0210	.0210	.0210
110.0000	.6190	.2420	.2240	.2910	.9490	.8320	.1400	.0190	.0120	.0230	.0230	.0230	.0230
137.0000	.1620	.0730	.0840	.0610	.0730	.0730	.1660	.0100	.0140	.0370	.0370	.0370	.0370
165.0000	.1680	.0730	.0840	.0610	.0730	.0730	.1660	.0100	.0140	.0370	.0370	.0370	.0370
172.0000	.1800	.0730	.0840	.0610	.0730	.0730	.1660	.0100	.0140	.0370	.0370	.0370	.0370
180.0000	.5870	.6626	.7340	.7869	.8283	.8846	.9262	.9639	1.0015	1.0392	1.0392	1.0392	1.0392

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP											
X/LB	PHI	.0188	.0339	.0612	.1506	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
1.5010	.8370	.3880	.0430	.0310	.0550	.1890	.0780	.0440	.0630	.0440	.0440	.0440	.0440
20.0000	.4420	.0630	.0330	.0330	.0740	.2580	.0950	.0630	.0630	.0630	.0630	.0630	.0630
40.0000	.6080	.1470	.0970	.2080	.2110	.4110	.2980	.1620	.1620	.1620	.1620	.1620	.1620
55.0000	.7480	.1750	.1650	.2210	.2430	.3830	.3830	.1730	.0770	.0610	.0610	.0610	.0610
70.0000	1.3000	.2430	.1740	.2160	.2440	.3590	.3590	.1620	.0630	.0510	.0510	.0510	.0510
90.0000	.7080	.2890	.2320	.2740	.3850	.1850	.1850	.0610	.0580	.0210	.0210	.0210	.0210
110.0000	.6190	.2420	.2240	.2910	.9490	.8320	.1400	.0190	.0120	.0230	.0230	.0230	.0230
137.0000	.1620	.0730	.0840	.0610	.0730	.0730	.1660	.0100	.0140	.0370	.0370	.0370	.0370
165.0000	.1680	.0730	.0840	.0610	.0730	.0730	.1660	.0100	.0140	.0370	.0370	.0370	.0370
172.0000	.1800	.0730	.0840	.0610	.0730	.0730	.1660	.0100	.0140	.0370	.0370	.0370	.0370
180.0000	.5870	.6626	.7340	.7869	.8283	.8846	.9262	.9639	1.0015	1.0392	1.0392	1.0392	1.0392

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -0.420

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP											
X/LB	PHI	.0188	.0339	.0612	.1506	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
1.5010	.8370	.3880	.0430	.0310	.0550	.1890	.0780	.0440	.0630	.0440	.0440	.0440	.0440
20.0000	.4420	.0630	.0330	.0330	.0740	.2580	.0950	.0630	.0630	.0630	.0630	.0630	.0630
40.0000	.6080	.1470	.0970	.2080	.2110	.4110	.2980	.1620	.1620	.1620	.1620	.1620	.1620
55.0000	.7480	.1750	.1650	.2210	.2430	.3830	.3830	.1730	.0770	.0610	.0610	.0610	.0610
70.0000	1.3000	.2430	.1740	.2160	.2440	.3590	.3590	.1620	.0630	.0510	.0510	.0510	.0510
90.0000	.7080	.2890	.2320	.2740	.3850	.1850	.1850	.0610	.0580	.0210	.0210	.0210	.0210
110.0000	.6190	.2420	.2240	.2910	.9490	.8320	.1400	.0190	.0120	.0230	.0230	.0230	.0230
137.0000	.1620	.0730	.0840	.0610	.0730	.0730	.1660	.0100	.0140	.0370	.0370	.0370	.0370
165.0000	.1680	.0730	.0840	.0610	.0730	.0730	.1660	.0100	.0140	.0370	.0370	.0370	.0370
172.0000	.1800	.0730	.0840	.0610	.0730	.0730	.1660	.0100	.0140	.0370	.0370	.0370	.0370
180.0000	.5870	.6626	.7340	.7869	.8283	.8846	.9262	.9639	1.0015	1.0392	1.0392	1.0392	1.0392

DATE 17 SEP 73 TABULATED PRESSURE DATA - IASC

(RBMB13)

AMES 87-707 IA9 O2A + S3 + T9 ORBITER FUSELAGE

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.420

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1938	.2259	.2711	.3200	.3953	.5120
PHI															
142.000									.7890	.1290	.0290	.0410	-.0130	.0070	-.0460
150.000							.9230								
157.000									.8450						
162.000									.7820						
165.000															
169.000															
172.000								.8570							
180.000	1.5200	1.0790	.4560	.2280	.1930	.2490		1.0050							
X/LB	.5873	.6826	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392					

PHI -1.0800 -1.0900

40.000	.0000	.0600	.1870	.1480	.0680	.0100									
70.000	-.0220	-.0510	-.0420	-.0130	-.0190	-.0170									
90.000	-.0480	-.0320	-.0280	.0300	.0280	.0290									
105.000			.0570	.0690	.0710	.0280									
110.000				.2900	.2180	.0190	.0260								
125.000				.2270	.2660	-.0380	-.0340								
135.000				.0440	.0830	-.0890	-.0590								
150.000				-.0120	.0900	.0560	.0830								
165.000				-.0990	-.0740	-.0290									

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.260

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1938	.2259	.2711	.3200	.3953	.5120
PHI															
20.000									.1110	.0620	.0830	.0540	.0480	.0480	-.0480
40.000									.1520	.1020	.1490	.0870	.0330	.0480	.0470
55.000									.1570	.2470	.2470	.1390	.0480	.0290	.0110
70.000									.1450	.2470	.1540	.0960	.0570	.0190	-.0410
90.000									.1210	.1270	-.0430	-.0140	.0160	.0110	-.0110
120.000	1.1930	.6400	.1860	.1130	.1370	.1980			.2740	.0990					
142.000									.7390						
150.000															
157.000								.9010							
162.000									.8140						
165.000															
169.000															
172.000															

.8740





## AMES 87-707 IA9 O2A + S3 + T9 ORBITER FUSELAGE

(RBN613)

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .560

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
70.1440	-.0330	-.0690	-.0670	-.0470	-.0690	-.0780	-.0780	-.0490		
90.1440	-.0410	-.0560	-.0430	-.0400	-.0440	-.0510	-.0260			
105.1440			.0020	-.0210	-.0440	-.0490	-.0280			
115.1440							.0180			
120.1440	-.0230	-.0320	.0620	.0970	-.0680	-.0780	-.0260	-.0120		
135.1440			.3180	.2590	-.0690	-.0780	-.0110			
150.1440	-.0180	-.0180	.0960	.0920	-.0270	-.0110	.0400			
165.1440	-.0130	-.0970	.0730	.0880	.0700	.0210				
180.1440	-.0070	-.0090	-.0050							

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.380

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
100.1440	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
20.1440	1.5390	.8370	.3690	.1.10	.0110	.0480		.1270	.0820	.0730
40.1440		.3730	.0390	.0470	.0320			.0810	.0510	.0260
60.1440		.3730	.0360	.0480	.0140			.0240	.0360	.0370
80.1440		.3710	.0360	.0450	.0280			.0270	.0330	.0370
90.1440		.3690	.0180	-.0130	.0210			.0170	.0400	-.0380
95.1440	.9120	.3780	.0360	-.0110	.0120			.0110	-.0420	-.0590
120.1440		.4140	.0140	.0600	.0620			.0610	-.0490	-.0830
142.1440		.4530	.0470	.0350	.0800			.0500	-.0430	-.0730
150.1440						.7860				
157.1440								.7310		
162.1440										
165.1440										
169.1440										
172.1440										
180.1440	1.5390	1.1070	.4800	.2050	.0960	.2370	.8480	1.0180	-.0650	-.0640

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.380

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
100.1440	-.0360									
20.1440	-.0580	-.0340	-.0160	-.0370	-.0480	-.0240		-.0780	-.0740	
40.1440	-.0590	-.0720	-.0680	-.0520	-.0710	-.0840	-.0530			
60.1440	-.0400	-.0590	-.0360	-.0240	-.0590	-.0830	-.0460			
80.1440		.0130	-.0240	-.0570	-.0690	-.0490				
110.1440		-.0170	-.0280	.0410	.0280	-.0930	-.0540	-.0460		
120.1440		.4590	.2930	-.0570	-.0600	-.0240				
130.1440	-.0100	-.0170	.0140	.0110	-.0110	.0140				



AMES 87-707 IA9 ORA + S3 + T9 ORBITER FUSELAGE

(RBMB13)

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.69U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1775	.1188	.0339	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3211	.3953	.512U
PMI														
.111U	.839U	.344U	.025U	.029U	.076U			.184U	.071U	.048U	.064U	.042U	.011U	
21.111U		.318U	.022U	.027U	.035U			.117U	.049U					
41.111U		.311U	.015U	-.049U	.043U			.031U	-.026U	-.043U	-.061U	-.071U	-.086U	
55.111U		.299U	-.011U	-.025U	.049U			-.012U	.018U					
71.111U		.276U	-.025U	-.038U	-.011U			.044U	.014U	-.041U	-.052U	-.039U	-.045U	
91.111U	.791U	.283U	-.011U	-.041U	-.012U			-.029U	-.035U	-.073U	-.073U	-.054U	-.041U	
121.111U		.331U	.054U	.025U	.023U			.022U	-.046U	-.098U	-.014U	-.089U	-.042U	
142.111U		.391U	.121U	.111U	.125U			.418U	-.056U	-.096U	-.087U	-.071U	-.061U	
157.111U					.653U									
162.111U								.716U						
165.111U								.751U						
169.111U									-.014U	-.089U	-.067U	-.084U	-.093U	
172.111U					.725U									
181.111U	1.496U	1.101U	.451U	.198U	.188U	.223U		.981U	-.049U	-.057U	-.059U	-.085U	-.031U	
X/LB	.5873	.6828	.738U	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392				

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1775	.1188	.0339	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3211	.3953	.512U
PMI														
.111U	.839U	.344U	.025U	.029U	.076U			.184U	.071U	.048U	.064U	.042U	.011U	
21.111U		.318U	.022U	.027U	.035U			.117U	.049U					
41.111U		.311U	.015U	-.049U	.043U			.031U	-.026U	-.043U	-.061U	-.071U	-.086U	
55.111U		.299U	-.011U	-.025U	.049U			-.012U	.018U					
71.111U		.276U	-.025U	-.038U	-.011U			.044U	.014U	-.041U	-.052U	-.039U	-.045U	
91.111U	.791U	.283U	-.011U	-.041U	-.012U			-.029U	-.035U	-.073U	-.073U	-.054U	-.041U	
121.111U		.331U	.054U	.025U	.023U			.022U	-.046U	-.098U	-.014U	-.089U	-.042U	
142.111U		.391U	.121U	.111U	.125U			.418U	-.056U	-.096U	-.087U	-.071U	-.061U	
157.111U					.653U									
162.111U								.716U						
165.111U								.751U						
169.111U									-.014U	-.089U	-.067U	-.084U	-.093U	
172.111U					.725U									
181.111U	1.496U	1.101U	.451U	.198U	.188U	.223U		.981U	-.049U	-.057U	-.059U	-.085U	-.031U	
X/LB	.5873	.6828	.738U	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392				

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1775	.1188	.0339	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3211	.3953	.512U
PMI														
.111U	.839U	.344U	.025U	.029U	.076U			.184U	.071U	.048U	.064U	.042U	.011U	
21.111U		.318U	.022U	.027U	.035U			.117U	.049U					
41.111U		.311U	.015U	-.049U	.043U			.031U	-.026U	-.043U	-.061U	-.071U	-.086U	
55.111U		.299U	-.011U	-.025U	.049U			-.012U	.018U					
71.111U		.276U	-.025U	-.038U	-.011U			.044U	.014U	-.041U	-.052U	-.039U	-.045U	
91.111U	.791U	.283U	-.011U	-.041U	-.012U			-.029U	-.035U	-.073U	-.073U	-.054U	-.041U	
121.111U		.331U	.054U	.025U	.023U			.022U	-.046U	-.098U	-.014U	-.089U	-.042U	
142.111U		.391U	.121U	.111U	.125U			.418U	-.056U	-.096U	-.087U	-.071U	-.061U	
157.111U					.653U									
162.111U								.716U						
165.111U								.751U						
169.111U									-.014U	-.089U	-.067U	-.084U	-.093U	
172.111U					.725U									
181.111U	1.496U	1.101U	.451U	.198U	.188U	.223U		.981U	-.049U	-.057U	-.059U	-.085U	-.031U	
X/LB	.5873	.6828	.738U	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392				

## AVES 87-7-7 IAG ORCA + S3 + T9 ORBITER FUSELAGE

(RBNB13)

MACH (3) = 3.502 BETAT (1) = -8.750

## SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5775	.5188	.5339	.5612	.5355	.5516	.5581	.5732	.5958	.2259	.2711	.3200	.3953	.5120
PHI														
142.160								.6470	.1820					
150.160	.6420	.2580	.2270	.2860			.9680			.0550	.0240	.0130	.0190	.0130
157.160								.9300						
162.160								.8440						
165.160						.8560								
169.160								1.0370						.0280
172.160			.4670	.2330	.1860	.2180								
180.160	1.5710	1.1120	.6626	.7069	.8203	.8848	.9262	.9639	1.0015	1.0392				
X/LB	.5873	.6626	.7380	.7869	.8203	.8848	.9262	.9639	1.0015	1.0392				
PHI														
142.160														
150.160	-.0150	.0450	.1930	.1740	.0390									
157.160	.0220	.0630	-.0310	-.0440	-.0460	.0210								
162.160														
165.160	.0130	-.0110	.0450	.0310	.0430	.0720								
169.160														
172.160														
180.160	1.5710	1.1120	.6626	.7069	.8203	.8848	.9262	.9639	1.0015	1.0392				

-0.550  
-1.490

-.1120

X/LB	.5775	.5188	.5339	.5612	.5355	.5516	.5581	.5732	.5958	.2259	.2711	.3200	.3953	.5120
PHI														
142.160								.1410	.1980					
150.160	.4120	.0380	-.0110	.0710			.0630		.1440					
157.160	.5770	.0390	.0560	.1210			.0960		.2140	.0970	.0470	.0210	.0480	
162.160	.6970	.0390	.1300	.1210			.1650		.2980					
165.160	.7130	.1970	.1460	.1320			.1670		.2220	.1720	.0610	.0570	.0360	
169.160									.1710	.0790	.0530	.0230	.0230	
172.160									.1410	.0220	.0210	.0290	.0460	
180.160	1.5710	1.1120	.6626	.7069	.8203	.8848	.9262	.9639	1.0015	1.0392				

MACH (3) = 3.302 BETAT (2) = -6.590

## SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5775	.5188	.5339	.5612	.5355	.5516	.5581	.5732	.5958	.2259	.2711	.3200	.3953	.5120
PHI														
142.160														
150.160	1.5970	.0390	.3510	.0640	.0590				.0980	.0640	.0480	.0230	-.0450	
157.160									.1440					
162.160									.2140	.0970	.0470	.0210	.0480	
165.160									.2980					
169.160									.2220	.1720	.0610	.0570	.0360	
172.160									.1710	.0790	.0530	.0230	.0230	
180.160	1.5710	1.1120	.6626	.7069	.8203	.8848	.9262	.9639	1.0015	1.0392				

.1500

.9360

.6940

.8670









DATE 17 SEP 73 TABULATED PRESSURE DATA - IA9C

AMES 87-757 IA9 O2A + S3 + T9 ORBITER FUSELAGE (RBMB913)

MACH (3) = 3.502 BETAT (6) = 6.650

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1500	.1539	.1602	.1355	.1546	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5120
PHI															
.000	1.5790	.9275	.3375	.5180	.5480	.0520			.1390		.1680	.1670	.1460	.5140	-.5140
20.000			.3130	.1440	-.1440	.1420			.5690		.1020	-.1410	-.1440	-.5300	-.5550
40.000			.3340	.1440	-.1515	.1070			.1680		.1130	-.1420	-.1440	-.5300	-.5550
55.000			.3400	.1440	-.1420	-.1420			.1780		.1140	-.1430	-.1440	-.5300	-.5550
70.000			.3300	.1440	-.1420	-.1410			-.5110		.1140	-.1460	-.1460	-.5300	-.5550
90.000		.8840	.3430	.1480	-.1420	-.1410			-.1290		-.1150	-.1470	-.1470	-.5300	-.5550
120.000			.3840	.1690	.1470	.1470			.5110		-.1150	-.1470	-.1470	-.5300	-.5550
142.000			.4320	.1360	.1230	.1480			.4440		-.1250	-.1470	-.1470	-.5300	-.5550
157.000							.7470								
182.000									.7330						
185.000									.7330						
189.000															
172.000	1.5790	1.1415	.4840	.1790	.1040	.2070	.7680		1.0390		-.5370	-.1440	-.1430	-.5300	-.5690
180.000	.5873	.8626	.7980	.7869	.8283	.8048	.9282	.9639	1.1415	1.5992					

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1500	.1539	.1602	.1355	.1546	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5120
PHI															
.000	1.5790	.9275	.3375	.5180	.5480	.0520			.1390		.1680	.1670	.1460	.5140	-.5140
20.000			.3130	.1440	-.1440	.1420			.5690		.1020	-.1410	-.1440	-.5300	-.5550
40.000			.3340	.1440	-.1515	.1070			.1680		.1130	-.1420	-.1440	-.5300	-.5550
55.000			.3400	.1440	-.1420	-.1420			.1780		.1140	-.1430	-.1440	-.5300	-.5550
70.000			.3300	.1440	-.1420	-.1410			-.5110		.1140	-.1460	-.1460	-.5300	-.5550
90.000		.8840	.3430	.1480	-.1420	-.1410			-.1290		-.1150	-.1470	-.1470	-.5300	-.5550
120.000			.3840	.1690	.1470	.1470			.5110		-.1150	-.1470	-.1470	-.5300	-.5550
142.000			.4320	.1360	.1230	.1480			.4440		-.1250	-.1470	-.1470	-.5300	-.5550
157.000							.7470								
182.000									.7330						
185.000									.7330						
189.000															
172.000	1.5790	1.1415	.4840	.1790	.1040	.2070	.7680		1.0390		-.5370	-.1440	-.1430	-.5300	-.5690
180.000	.5873	.8626	.7980	.7869	.8283	.8048	.9282	.9639	1.1415	1.5992					

MACH (3) = 3.502 BETAT (7) = 6.840

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1500	.1539	.1602	.1355	.1546	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5120
PHI															
.000	1.5790	.9275	.3375	.5170	-.1510	.0520			.1580		.1690	.1490	.1440	.5340	-.5150
20.000			.3130	.1430	-.1480	.1490			.1620		.1020	-.1420	-.1430	-.5680	-.5740
40.000			.3340	.1430	-.1410	.1070			.1640		.1130	-.1420	-.1430	-.5680	-.5740
55.000			.3400	.1430	-.1430	-.1020			.1640		.1140	-.1430	-.1430	-.5680	-.5740
70.000			.3300	.1430	-.1430	-.1410			-.1470		.1140	-.1440	-.1430	-.5680	-.5740
90.000		.8810	.3430	.1490	-.1430	-.1410			-.1480		-.1150	-.1470	-.1470	-.5680	-.5740
120.000			.3880	.1620	.1470	.1470			.1480		-.1150	-.1470	-.1470	-.5680	-.5740
142.000			.4320	.1360	.1230	.1480			.1480		-.1250	-.1470	-.1470	-.5680	-.5740
157.000							.7470								
182.000									.7330						
185.000									.7330						
189.000															
172.000	1.5790	1.1415	.4840	.1790	.1040	.2070	.7680		1.0390		-.5370	-.1440	-.1430	-.5300	-.5690
180.000	.5873	.8626	.7980	.7869	.8283	.8048	.9282	.9639	1.1415	1.5992					





AMES 87-757 IA9 OEA + S3 + T9 ORBITER FUSELAGE

(RBNB14)

MACH ( 1 ) = 2.498      BETAT ( 2 ) = -6.29U

SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1956	.1981	.1732	.1958	.2259	.2711	.3214	.3933	.5120
PHI															
.100	1.3319U	.819U	.481U	.1061U	.0999U	.179U	.123U	.122U	.122U	.055U	.058U	.021U	-.039U	-.057U	
20.100			.528U	.099U	.113U	.094U	.122U	.122U	.122U	.038U	.056U	.021U	-.028U	-.058U	
40.100			.641U	.179U	.158U	.166U	.251U	.251U	.251U	.174U	.143U	-.021U	-.028U	-.058U	
55.100			.659U	.208U	.168U	.334U	.291U	.291U	.291U	.222U	.163U	-.012U	-.027U	-.022U	
70.100			.657U	.208U	.139U	.384U	.339U	.339U	.339U	.278U	.195U	-.021U	-.036U	-.044U	
90.100	1.110U		.621U	.178U	.129U	.214U	.364U	.364U	.364U	.196U	.018U	-.033U	-.054U	-.063U	
120.100			.557U	.184U	.144U	.216U	.689U	.675U	.675U	-.023U	-.024U	-.038U	-.043U	-.065U	
142.100			.478U	.144U	.144U	.215U	.771U	.684U	.684U	-.074U	-.024U	-.033U	-.032U	-.063U	
157.100							.596U	.596U	.596U						
162.100							.675U	.675U	.675U						
165.100															
169.100															
172.100							.675U	.675U	.675U						
180.100	1.318U	.892U	.336U	.123U	.111U	.188U									
X/LB	.9873	.6626	.738U	.7869	.6283	.8848	.9282	.9639	1.1415	1.0392					

SECTION ( 2 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1956	.1981	.1732	.1958	.2259	.2711	.3214	.3933	.5120
PHI															
.100	1.000U	.596U	.184U	.137U	.103U	-.021U	-.112U	-.112U	-.112U	-.094U	-.125U				
20.100			-.148U	-.033U	-.045U	-.028U	-.039U	-.039U	-.039U						
40.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
55.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
70.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
90.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
120.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
142.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
157.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
162.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
165.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
169.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
172.100			-.148U	-.033U	.036U	.029U	.029U	.029U	.029U						
180.100	1.000U	.596U	.184U	.137U	.103U	-.021U	-.112U	-.112U	-.112U	-.094U	-.125U				

SECTION ( 3 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1956	.1981	.1732	.1958	.2259	.2711	.3214	.3933	.5120
PHI															
.100	1.331U	.910U	.423U	.052U	.093U	-.049U	-.149U	-.149U	-.149U	.198U	.162U	.149U	.149U	-.025U	-.078U
20.100			.481U	.075U	.133U	-.044U	-.149U	-.149U	-.149U	.167U	.169U	.141U	.141U	-.028U	-.022U
40.100			.582U	.131U	.151U	.128U	-.149U	-.149U	-.149U	.133U	.139U	.141U	.141U	-.028U	-.022U
55.100			.596U	.156U	.137U	.273U	-.149U	-.149U	-.149U	.143U	.143U	.141U	.141U	-.028U	-.022U
70.100			.581U	.154U	.199U	.232U	-.149U	-.149U	-.149U	.191U	.191U	.141U	.141U	-.041U	-.046U
90.100	1.148U	.557U	.331U	.091U	.137U	.248U	-.149U	-.149U	-.149U	.239U	.239U	.141U	.141U	-.049U	-.062U
120.100			.509U	.147U	.118U	.174U	-.149U	-.149U	-.149U	.157U	.157U	.141U	.141U	-.043U	-.078U

DATE 17 SEP 73 TABULATED PRESSURE DATA - IA9C  
 AVES 87-7U7 IA9 OCA + S3 + T9 ORBITER FUSELAGE (RB814)

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.180  
 SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1916	.1581	.1732	.1958	.2239	.2711	.3214	.3953	.5124
PHI															
142.1440															
150.1440															
157.1440															
162.1440															
165.1440															
169.1440															
172.1440															
181.1440															
X/LB	1.3310	.9075	.3400	.1220	.1170	.1750	.7160								
	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1916	.1581	.1732	.1958	.2239	.2711	.3214	.3953	.5124
PHI															
142.1440															
150.1440															
157.1440															
162.1440															
165.1440															
169.1440															
172.1440															
181.1440															
X/LB	1.3310	.9075	.3400	.1220	.1170	.1750	.7160								
	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1916	.1581	.1732	.1958	.2239	.2711	.3214	.3953	.5124
PHI															
142.1440															
150.1440															
157.1440															
162.1440															
165.1440															
169.1440															
172.1440															
181.1440															
X/LB	1.3310	.9075	.3400	.1220	.1170	.1750	.7160								
	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1916	.1581	.1732	.1958	.2239	.2711	.3214	.3953	.5124
PHI															
142.1440															
150.1440															
157.1440															
162.1440															
165.1440															
169.1440															
172.1440															
181.1440															
X/LB	1.3310	.9075	.3400	.1220	.1170	.1750	.7160								
	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1916	.1581	.1732	.1958	.2239	.2711	.3214	.3953	.5124
PHI															
142.1440															
150.1440															
157.1440															
162.1440															
165.1440															
169.1440															
172.1440															
181.1440															
X/LB	1.3310	.9075	.3400	.1220	.1170	.1750	.7160								
	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					





(RBN914)

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.420

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5973 .6626 .7380 .7869 .8283 .8848 .9262 .9639 1.0415 1.0392

PHI  
165.1440 -.0745 -.0489 .1180 .0470 .0210 -.0390  
180.1440 -.1030 -.0990 -.0710

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.560

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .1444 .1475 .1488 .1539 .1612 .1355 .1506 .1581 .1732 .1958 .2259 .2711 .3214 .3953 .5120

PHI  
.1440 1.2930 .9110 .4390 .0360 .0520 .1950 .0560  
20.1440 .3930 .0180 .0430 .1630 .0530  
40.1440 .3620 -.0630 .0080 -.0730 .0440  
55.1440 .3180 -.0350 .0400 .0370  
70.1440 .2570 -.0360 .0600 .0260  
90.1440 .6840 .2180 .0620 .0590 .0340  
120.1440 .2370 .0190 .0370 .0360  
142.1440 .2790 .0360 .0390 .0280  
157.1440 .5040  
162.1440  
165.1440 .5150  
169.1440 .5690  
172.1440 .5220  
180.1440 1.2930 .8920 .3280 .1080 .1120 .1880 .7420

X/LB .5973 .6626 .7380 .7869 .8283 .8848 .9262 .9639 1.0415 1.0392

PHI  
.1440 -.0310  
40.1440 -.0690  
70.1440 -.0820  
90.1440 -.1690  
105.1440  
110.1440  
120.1440  
135.1440  
150.1440  
165.1440  
180.1440



AMES 87-757 IA9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNS14)

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.560

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

M/LB	1.1175	1.1188	1.1339	1.1502	1.1516	1.1581	1.1732	1.1938	1.2259	1.2711	1.3214	1.3953	1.5120
PMI													
1.0000	1.3100	.7800	.3730	.0330	.1640		.1360		.1350	.1620	.1270	-.1180	-.1190
2.0000		.4300	.0600	.1150	.1550		.1670		.1680				
4.0000		.3770	.1800	.1930	.3720		.2170		.1890	.1650	-.1420	-.1430	.1320
55.1000		.6490	.2210	.1660	.3910		.3510		.2460				
70.1000		.6880	.2290	.1630	.2190		.4120		.2920	.1330	.1480	.1260	.1160
90.1000	1.1190	.6820	.2340	.1640	.2110		.2510		.3260	.1340	.1440	.1150	-.1410
120.1000		.5920	.2230	.1810	.2250		.3240	.1260	.1810	.1650	.1240	-.1190	-.1360
142.1000		.6980	.1730	.1580	.2140		.6760		.1120	-.1470	-.1410	-.1450	-.1210
150.1000						.7560							
157.1000							.7110			-.1180	.1440	.1180	-.1190
165.1000							.6230						
169.1000					.6650								
172.1000							.7810						
180.1000	1.3100	.8840	.1310	.1160	.1360				-.1690	-.1750	-.1810	-.1900	-.1180
M/LB	.5870	.5826	.7380	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392			

MACH ( 2 ) = 2.959 BETAT ( 2 ) = -6.410

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

M/LB	1.1175	1.1188	1.1339	1.1502	1.1516	1.1581	1.1732	1.1938	1.2259	1.2711	1.3214	1.3953	1.5120
PMI													
1.0000	1.3340	.8120	.3940	.0490	.1190		.1330		.1440	.1610	.1650	-.1270	
2.0000		.4450	.0630	.1680	.1440		.1940		.1630				
4.0000		.5510	.1360	.0780	.3620		.1910		.1090	.0630	-.1410	-.1130	-.1416
55.1000		.6210	.1830	.1320	.1720		.3130		.2150				
70.1000		.6290	.1820	.1290	.1670		.1610		.2690	.1140	.1320	.1110	-.1470
90.1000	1.1130	.6270	.1810	.1220	.1660		.1830		.2840	.1180	.1320	.1420	-.1190
120.1000		.5610	.1950	.1520	.1860		.2710		.1210	.1340	.1140	-.1270	-.1440





AWES 87-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RBNS:4)

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .160

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7389	.7869	.8283	.8848	.9262	.9639	1.0415	1.0392
PHI										
70.1440	-.14815	-.16930	-.16890	-.16660	-.16860	-.16950	-.16660			
90.1440	-.10720	-.10840	-.10580	-.10580	-.10680	-.10740	-.10490			
110.1440			-.10330	-.10360	-.10510	-.10690	-.10490			
130.1440								-.10470		
150.1440			-.10460	-.10530	-.10390	-.10780	-.10610	-.10350		
170.1440			-.10440	-.10460	-.10280	-.10810	-.10890	-.10280		
190.1440			-.10370	-.10420	-.10320	-.10670	-.10460	-.10130		
210.1440			-.10320	-.10380	-.10190	-.10690	-.10240	-.10120		

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.380

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1073	.1086	.1039	.1082	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
10.1440	1.3530	.8630	.4010	.1440	.1400	-.1020	-.1020		.1430		.1100	.0510	.0720	.0190	-.0330
20.1440			.3960	.1410	.1400	-.1020	-.1020		.0520		.1370				
40.1440			.4160	.1460	.1020	-.1020	-.1020		-.1070		.1660	.1440	.1490	-.1020	-.1660
55.1440			.3970	.1430	.1400	-.1030	-.1030		-.1040		.1020				
70.1440			.3530	.1410	-.1010	-.1010	-.1010		.0190		.1120	-.1030	-.1010	-.1040	-.1060
90.1440		.8070	.3270	.1070	-.1010	-.1010	-.1010		-.1020		.1030	-.1050	-.1040	-.1040	-.1020
120.1440			.3300	.1040	.1020	-.1040	-.1040		.1020		-.1010	-.1020	-.1060	-.1070	-.1040
142.1440										-.1040					
150.1440			.3460	.1070	.1070	.1070	.1070		.3800		-.1060	-.1060	-.1060	-.1070	-.1040
157.1440															
162.1440									.6210						
165.1440															
169.1440															
172.1440															
180.1440	1.3530	.9260	.3480	.1290	.1180	.1460	.6510		.7970		-.1090	-.1090	-.1090	-.1070	-.1090

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.380

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1073	.1086	.1039	.1082	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
10.1440	1.3530	.8630	.4010	.1440	.1400	-.1020	-.1020		.1430		.1100	.0510	.0720	.0190	-.0330
20.1440			.3960	.1410	.1400	-.1020	-.1020		.0520		.1370				
40.1440			.4160	.1460	.1020	-.1020	-.1020		-.1070		.1660	.1440	.1490	-.1020	-.1660
55.1440			.3970	.1430	.1400	-.1030	-.1030		-.1040		.1020				
70.1440			.3530	.1410	-.1010	-.1010	-.1010		.0190		.1120	-.1030	-.1010	-.1040	-.1060
90.1440		.8070	.3270	.1070	-.1010	-.1010	-.1010		-.1020		.1030	-.1050	-.1040	-.1040	-.1020
120.1440			.3300	.1040	.1020	-.1040	-.1040		.1020		-.1010	-.1020	-.1060	-.1070	-.1040
142.1440										-.1040					
150.1440			.3460	.1070	.1070	.1070	.1070		.3800		-.1060	-.1060	-.1060	-.1070	-.1040
157.1440															
162.1440									.6210						
165.1440															
169.1440															
172.1440															
180.1440	1.3530	.9260	.3480	.1290	.1180	.1460	.6510		.7970		-.1090	-.1090	-.1090	-.1070	-.1090



## AMES 07-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNS14)

MACH ( 2 ) = 2.999      BETAT ( 7 ) = 0.710

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP											
X/LB	PHI	.0188	.0339	.0682	.1355	.1956	.1732	.1958	.2259	.2711	.3214	.3953	.5124
1.000	1.3344	.7720	.3460	.1210	.0430	.0630	.1394	.1994	.0330	.0180	.0210	-.0220	-.0300
20.000			.3190	.0090	.0100	.0100	.0910		.0480				
40.000			.3160	-.0410	-.0290	-.0160	.0280		-.0340	-.0610	-.0730	-.0680	-.0970
55.000			.2830	-.0160	-.0410	-.0270	-.0190		-.0450				
70.000			.2420	-.0170	-.0550	-.0310	-.0150		.0490	-.0440	-.0660	-.0590	-.0720
90.000		.6740	.2240	-.0330	-.0570	-.0310	-.0440		-.0330	-.0740	-.0860	-.0550	-.0690
120.000			.2460	.0170	-.0190	-.0170	.0440		-.0740	-.0130	-.0110	-.0690	-.0490
142.000			.2860	.0540	.0480	.0460	.2890		-.0460	-.0240	-.0160	-.0940	-.0640
157.000						.4910							
162.000							.5430						
165.000							.5770						
169.000													
172.000						.9220							
180.000	1.3000	.8980	.3330	.1180	.1090	.1370	.7840		-.0820	-.0890	-.0960	-.0190	-.0320
X/LB	.5873	.6626	.7360	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392			

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP											
X/LB	PHI	.0188	.0339	.0682	.1355	.1956	.1732	.1958	.2259	.2711	.3214	.3953	.5124
1.000	-.0370						-.1190						
40.000	-.0490												
70.000	-.0780	-.0670	-.0460	-.0940	-.0540	-.1130	-.0790		-.0790				
90.000	-.0710	-.0740	-.0750	-.0680	-.0680	-.1140	-.0760						
105.000			-.0340	-.0550	-.0680	-.1120	-.0790						
110.000			-.0630	-.0710	-.0660	-.1210	-.0820						
120.000			.2720	.1940	-.0740	-.0640	-.0510						
135.000			-.0560	-.0920	-.1210	-.1090	-.0770						
150.000			-.1230	-.0660	-.0620	-.0730	-.0860						
165.000			-.1210	-.0660	-.0620	-.0730	-.0860						
180.000													

MACH ( 3 ) = 3.342      BETAT ( 1 ) = -0.730

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP											
X/LB	PHI	.0188	.0339	.0682	.1355	.1956	.1732	.1958	.2259	.2711	.3214	.3953	.5124
1.000	1.3440	.7380	.3320	.0230	-.0040	.0360	.1600		.0680	.0250	.0240	.0110	-.0360
20.000			.5920	.0300	-.0010	.0670	.1670		.0930				
40.000			.5520	.0400	.0750	.0930	.2660		.1310	.0830	.0270	-.0210	.0170
55.000			.6410	.1330	.1910	.1770	.4080		.2680	.0820	.0700	.0410	.0190
70.000			.6910	.1950	.1580	.1810	.1990		.3300	.1620	.0700	.0410	.0190
90.000	1.1890	.6940	.2380	.1560	.1730	.1730	.1950		.2740	.1540	.0660	.0280	.0050
120.000			.6110	.2370	.1810	.2110	.2730		.1360	.0330	.0360	.0010	-.0270









AVES 67-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(R9N814)

MACH ( 3 ) = 3.512 BETAT ( 4 ) = .050

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5873 .6626 .7380 .7888 .8283 .8648 .9282 .9639 1.0115 1.0392

PHI  
163.1440 -.1380  
182.1440 -.1330 -.1280

MACH ( 3 ) = 3.512 BETAT ( 5 ) = 4.495

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .1440 .1475 .1500 .1539 .1612 .1355 .1516 .1581 .1732 .1956 .2259 .2711 .3214 .3983 .5120

PHI  
.140 1.3940 .8960 .4310 .1530 .1210 -.1280 .1380 .1620 .1680 .1670 .1620 .1390 .1380 .1110  
20.140 .4280 .1580 .1220 -.1220 .1320 .1620 .1680 .1670 .1620 .1390 .1380 .1110  
40.140 .4560 .1580 .1210 -.1270 .1370 .1670 .1680 .1670 .1620 .1390 .1380 .1110  
55.140 .4340 .1560 .1240 .1370 .1490 .1690 .1680 .1670 .1620 .1390 .1380 .1110  
70.140 .3780 .1580 .1490 .1410 .1510 .1690 .1680 .1670 .1620 .1390 .1380 .1110  
85.140 .8430 .1470 .1560 .1490 .1470 .1510 .1690 .1680 .1670 .1620 .1390 .1380 .1110  
100.140 .3470 .1570 .1530 .1420 .1520 .1690 .1680 .1670 .1620 .1390 .1380 .1110  
120.140 .3610 .1590 .1680 .1530 .1630 .1690 .1680 .1670 .1620 .1390 .1380 .1110  
137.140 .6190 .1690 .1680 .1530 .1630 .1690 .1680 .1670 .1620 .1390 .1380 .1110  
165.140 .5970 .1690 .1680 .1530 .1630 .1690 .1680 .1670 .1620 .1390 .1380 .1110  
189.140 .6270 .1690 .1680 .1530 .1630 .1690 .1680 .1670 .1620 .1390 .1380 .1110  
190.140 .8210 .1690 .1680 .1530 .1630 .1690 .1680 .1670 .1620 .1390 .1380 .1110

X/LB .5873 .6626 .7380 .7888 .8283 .8648 .9282 .9639 1.0115 1.0392

PHI  
1440 -.1410  
40.1440 -.1680  
70.1440 -.1720  
90.1440 -.1810  
110.1440 -.1930  
120.1440 -.1410  
135.1440 .1240  
150.1440 .1390  
165.1440 .1480  
180.1440 .1740

DATE 17 SEP 73

TABULATED PRESSURE DATA - 1A9C  
 AVES 07-707 1A9 ORA + 93 + T9 ORBITER FUSELAGE

(RBNB14)

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 5.66U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	1.000	1.075	1.150	1.225	1.300	1.375	1.450	1.525	1.600	1.675	1.750	1.825	1.900	1.975	2.050
PMI															
1.000	1.338U	.811U	.301U	.037U	.007U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U
2.000															
3.000															
4.000															
5.000															
6.000															
7.000															
8.000															
9.000															
10.000															
11.000															
12.000															
13.000															
14.000															
15.000															
16.000															
17.000															
18.000															
19.000															
20.000															
X/LB	1.338U	.944U	.351U	.129U	.119U	.127U	.082U	.0848	.9262	.9639	1.0415	1.0992			

MACH ( 3 ) = 3.522 BETAT ( 7 ) = 6.86U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	1.000	1.075	1.150	1.225	1.300	1.375	1.450	1.525	1.600	1.675	1.750	1.825	1.900	1.975	2.050
PMI															
1.000	1.338U	.811U	.301U	.037U	.007U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U
2.000															
3.000															
4.000															
5.000															
6.000															
7.000															
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12.000															
13.000															
14.000															
15.000															
16.000															
17.000															
18.000															
19.000															
20.000															
X/LB	1.338U	.944U	.351U	.129U	.119U	.127U	.082U	.0848	.9262	.9639	1.0415	1.0992			

MACH ( 3 ) = 3.542 BETAT ( 8 ) = 8.06U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	1.000	1.075	1.150	1.225	1.300	1.375	1.450	1.525	1.600	1.675	1.750	1.825	1.900	1.975	2.050
PMI															
1.000	1.338U	.811U	.301U	.037U	.007U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U	-.003U
2.000															
3.000															
4.000															
5.000															
6.000															
7.000															
8.000															
9.000															
10.000															
11.000															
12.000															
13.000															
14.000															
15.000															
16.000															
17.000															
18.000															
19.000															
20.000															
X/LB	1.338U	.944U	.351U	.129U	.119U	.127U	.082U	.0848	.9262	.9639	1.0415	1.0992			





## AMES 07-7J7 IAG OEA + S3 + T9 ORBITER FUSELAGE

(RBNS15)

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.280

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0075	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI														
1.2840	.9280	.5030	.1110	.0790	.0030			.1230	.0600	.0340	.0110	-.0400	-.0510	
2.1140		.5580	.1450	.1390	-.0120			.0840	.0280	-.0270	-.0320	-.0200	.0550	
4.0140		.6620	.2060	.1920	.0940			.0710	.0320	-.0200	-.0200	-.0200	.0550	
5.5140		.6870	.2060	.1550	.2640			.2200	.1320	.0810	.0420	-.0240	-.0450	
7.0140		.6550	.2060	.0970	.2860			.2530	.2490	.0400	-.0400	-.0550	-.0550	
9.0140	1.0540	.5930	.1720	.0840	.2360			.2750	.1640	.0400	-.0530	-.0860	-.0790	
12.0140		.5130	.0560	.0620	.1550			.3800	.0810					
14.0140		.4340	.1140	.0670	.1380		.6870	.6140	-.0210	-.0350	-.0480	-.0610	-.0820	
15.0140								.6170						
16.0140								.5340						
16.0140														
16.0140														
17.0140						.6220								
18.0140	1.2840	.8290	.0910	.0380	.0070			.6990						
X/LB	.5873	.6626	.7888	.8283	.8848	.9282	.9639	1.0415	1.0392					

MACH ( 1 ) = 2.498

BETAT ( 3 ) = -4.160

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0075	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI														
1.2840	.9450	.5120	.1130	.0570	-.0270			.1950	.1160	.0240	.0240	-.0480	-.0480	
2.1140		.5440	.1400	.1290	-.0110			.1450	.0570	-.0320	-.0320	-.0400	.0390	
4.0140		.6150	.1760	.1960	.0900			.0890	.0320	-.0320	-.0320	-.0400	.0390	
5.5140		.6250	.1770	.1590	.2340			.1830	.1190	.0820	.0370	-.0400	.0390	
7.0140		.6000	.1750	.0960	.2520			.2110	.1530	.0240	-.0440	-.0540	-.0580	
9.0140	1.0450	.5370	.1240	.0790	.1470			.2490	.2130	.0130	-.0540	-.0680	-.0790	
12.0140		.4570	.1200	.0920	.1400			.2680	.1400	-.0180	-.0630	-.0870	-.0860	

DATE 17 SEP 73 TABULATED PRESSURE DATA - IA9C

(RBMB15)

AMES 87-717 IA9 OGA + S3 + T9 ORBITER FUSELAGE

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.16U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3211	.3953	.5121
PHI										.0321					
142.000															
150.000															
157.000			.3971	.0971	.0911	.1551	.6691		.5651						
152.000															
165.000															
169.000															
172.000															
180.000	1.3531	.8311	.2871	.0691	.0791	.1291	.6211		.7121						
X/LB	.5973	.6526	.7381	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3211	.3953	.5121
PHI															
142.000															
150.000															
157.000															
152.000															
165.000															
169.000															
172.000															
180.000	1.3531	.8311	.2871	.0691	.0791	.1291	.6211		.7121						
X/LB	.5973	.6526	.7381	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .06U

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3211	.3953	.5121
PHI															
142.000															
150.000															
157.000															
152.000															
165.000															
169.000															
172.000															
180.000	1.3711	.9511	.4811	.1111	.0421	-.0211			.2211						
X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3211	.3953	.5121

AMES 87-7-7 IAS ORA + S3 + T9 ORBITER FUSELAGE

(791815)

MACH ( 1 ) = 2.498      BETAT ( 4 ) = .061

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
PHI															
100.000	1.3750	.8325	.3615	.0920	.0490	.1430		.7190							
X/LB	.5873	.6626	.7300	.7869	.8283	.8648	.9262	.9639	1.0015	1.0392					
PHI															
40.000	-.0080	.0330	.0590	.0220	.0070	-.0750		-.0730							
70.000	-.0900	-.0590	-.0950	-.0620	-.0790	-.0870		-.0870							
90.000	-.0780	-.0790	-.0810	-.0870	-.0920	-.0970		-.0970							
110.000															
120.000	-.0700	-.0520	.0790	.0990	-.0200	-.0480		-.0500							
130.000															
150.000	-.0670	-.0610	.0690	.0690	-.0190	-.0110									
160.000	-.0590														
180.000	-.0590	-.0610	-.0540												

MACH ( 1 ) = 2.498      BETAT ( 5 ) = 4.310

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
PHI															
100.000	1.3320	.9460	.4790	.1200	.0510	.0710		.1780							
20.000															
40.000	.4760	.3150	.0320	.0440				.2050							
60.000	.4610	.0740	.0720	-.0610				.1260							
80.000	.4250	.0790	.0410	-.0120				.0140							
100.000	.3710	.0460	-.0020	.0610				.0210							
120.000	.3200	-.0020	-.0190	.0260				.0250							
140.000	.2840	.0180	-.0120	.0330				.0360							
160.000	.2580	.0440	.0460	.0960				.3700							
180.000								.5830							
200.000															
220.000															
240.000															
260.000															
280.000															
300.000															
PHI															
100.000	-.0060							-.0780							
200.000	-.0120	.0780	-.0280	-.0510	-.0110			-.0780							





AMES 97-707 1A9 OEA \* 33 \* T9 ORBITER FUSELAGE

(PBNB15)

MACH ( 1 ) = 2.458      SETAT ( 6 ) = 5.440

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392
PMI										
185.140	-.1480	-.1399	.1140	.1415	-.1221	-.1459				
186.140	-.1110	-.1020	-.1760							

MACH ( 1 ) = 2.458      SETAT ( 7 ) = 8.570

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0100	.0175	.0188	.0339	.0502	.0355	.0506	.0581	.0732	.0958	.2259	.2711	.3200	.3953	.5120
PMI															
1.2340	.8900	.4230	.0440	.0740	.1390				.0410		.0260	-.1020	-.0300	-.0370	-.0370
20.140	.3780	.0290	.0490	.1340					.0710		.0170				
40.140	.3490	.0020	.0040	-.0590					.0330		-.0640	-.1060	-.1020	-.1200	-.1070
59.140	.3100	.0010	.0010	-.1490					-.1480		-.0050				
70.140	.2330	-.0270	-.0660	-.1270					-.1480		.0370	-.0300	-.0880	-.1180	-.1190
90.140	.2140	-.0690	-.0690	-.0310					-.1090		.0130	-.0670	-.0870	-.1040	-.1040
120.140	.2040	-.0330	-.0470	-.0500					-.1090		-.0870	-.1440	-.1220	-.1080	-.1070
142.140	.2060	.0110	.0140	.0530					.2330		-.1440	-.1680	-.1460	-.1020	-.1090
190.140									.4210						
157.140									.4630						
162.140															
163.140															
169.140									.5010						
172.140															
180.140	1.2340	.8200	.2770	.0070	.0780	.1490	.4570		.5620						
X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

MACH ( 1 ) = 2.458

SETAT ( 6 ) = 5.440

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0100	.0175	.0188	.0339	.0502	.0355	.0506	.0581	.0732	.0958	.2259	.2711	.3200	.3953	.5120
PMI															
1.2340	.8900	.4230	.0440	.0740	.1390				.0410		.0260	-.1020	-.0300	-.0370	-.0370
20.140	.3780	.0290	.0490	.1340					.0710		.0170				
40.140	.3490	.0020	.0040	-.0590					.0330		-.0640	-.1060	-.1020	-.1200	-.1070
59.140	.3100	.0010	.0010	-.1490					-.1480		-.0050				
70.140	.2330	-.0270	-.0660	-.1270					-.1480		.0370	-.0300	-.0880	-.1180	-.1190
90.140	.2140	-.0690	-.0690	-.0310					-.1090		.0130	-.0670	-.0870	-.1040	-.1040
120.140	.2040	-.0330	-.0470	-.0500					-.1090		-.0870	-.1440	-.1220	-.1080	-.1070
142.140	.2060	.0110	.0140	.0530					.2330		-.1440	-.1680	-.1460	-.1020	-.1090
190.140									.4210						
157.140									.4630						
162.140															
163.140															
169.140									.5010						
172.140															
180.140	1.2340	.8200	.2770	.0070	.0780	.1490	.4570		.5620						
X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

TABLED PRESSURE DATA - 103C

(98P815)

DATE 17 SEP 73

MAC ( 2 ) = 2.239

BEAT ( 2 ) = -9.339

SECTION ( 1 ) ORBITER FUELAGE DEPENDENT VARIABLE CP

M/LB	MAC ( 2 )	BEAT ( 2 )	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
17.0	1.1225	0.273	0.199	0.239	0.292	0.335	0.373	0.411	0.449	0.487	0.525	0.563	0.601	0.639	0.677	0.715	0.753	0.791	0.829	0.867	0.905	0.943	0.981	1.019	1.057	1.095	1.133	1.171	1.209	1.247	1.285	1.323	1.361	1.399	1.437	1.475	1.513	1.551	1.589	1.627	1.665	1.703	1.741	1.779	1.817	1.855	1.893	1.931	1.969	2.007	2.045	2.083	2.121	2.159	2.197	2.235	2.273	2.311	2.349	2.387	2.425	2.463	2.501	2.539	2.577	2.615	2.653	2.691	2.729	2.767	2.805	2.843	2.881	2.919	2.957	2.995	3.033	3.071	3.109	3.147	3.185	3.223	3.261	3.299	3.337	3.375	3.413	3.451	3.489	3.527	3.565	3.603	3.641	3.679	3.717	3.755	3.793	3.831	3.869	3.907	3.945	3.983	4.021	4.059	4.097	4.135	4.173	4.211	4.249	4.287	4.325	4.363	4.401	4.439	4.477	4.515	4.553	4.591	4.629	4.667	4.705	4.743	4.781	4.819	4.857	4.895	4.933	4.971	5.009	5.047	5.085	5.123	5.161	5.199	5.237	5.275	5.313	5.351	5.389	5.427	5.465	5.503	5.541	5.579	5.617	5.655	5.693	5.731	5.769	5.807	5.845	5.883	5.921	5.959	6.001	6.039	6.077	6.115	6.153	6.191	6.229	6.267	6.305	6.343	6.381	6.419	6.457	6.495	6.533	6.571	6.609	6.647	6.685	6.723	6.761	6.799	6.837	6.875	6.913	6.951	6.989	7.027	7.065	7.103	7.141	7.179	7.217	7.255	7.293	7.331	7.369	7.407	7.445	7.483	7.521	7.559	7.597	7.635	7.673	7.711	7.749	7.787	7.825	7.863	7.901	7.939	7.977	8.015	8.053	8.091	8.129	8.167	8.205	8.243	8.281	8.319	8.357	8.395	8.433	8.471	8.509	8.547	8.585	8.623	8.661	8.699	8.737	8.775	8.813	8.851	8.889	8.927	8.965	9.003	9.041	9.079	9.117	9.155	9.193	9.231	9.269	9.307	9.345	9.383	9.421	9.459	9.497	9.535	9.573	9.611	9.649	9.687	9.725	9.763	9.801	9.839	9.877	9.915	9.953	9.991	10.029	10.067	10.105	10.143	10.181	10.219	10.257	10.295	10.333	10.371	10.409	10.447	10.485	10.523	10.561	10.599	10.637	10.675	10.713	10.751	10.789	10.827	10.865	10.903	10.941	10.979	11.017	11.055	11.093	11.131	11.169	11.207	11.245	11.283	11.321	11.359	11.397	11.435	11.473	11.511	11.549	11.587	11.625	11.663	11.701	11.739	11.777	11.815	11.853	11.891	11.929	11.967	12.005	12.043	12.081	12.119	12.157	12.195	12.233	12.271	12.309	12.347	12.385	12.423	12.461	12.499	12.537	12.575	12.613	12.651	12.689	12.727	12.765	12.803	12.841	12.879	12.917	12.955	12.993	13.031	13.069	13.107	13.145	13.183	13.221	13.259	13.297	13.335	13.373	13.411	13.449	13.487	13.525	13.563	13.601	13.639	13.677	13.715	13.753	13.791	13.829	13.867	13.905	13.943	13.981	14.019	14.057	14.095	14.133	14.171	14.209	14.247	14.285	14.323	14.361	14.399	14.437	14.475	14.513	14.551	14.589	14.627	14.665	14.703	14.741	14.779	14.817	14.855	14.893	14.931	14.969	15.007	15.045	15.083	15.121	15.159	15.197	15.235	15.273	15.311	15.349	15.387	15.425	15.463	15.501	15.539	15.577	15.615	15.653	15.691	15.729	15.767	15.805	15.843	15.881	15.919	15.957	15.995	16.033	16.071	16.109	16.147	16.185	16.223	16.261	16.299	16.337	16.375	16.413	16.451	16.489	16.527	16.565	16.603	16.641	16.679	16.717	16.755	16.793	16.831	16.869	16.907	16.945	16.983	17.021	17.059	17.097	17.135	17.173	17.211	17.249	17.287	17.325	17.363	17.401	17.439	17.477	17.515	17.553	17.591	17.629	17.667	17.705	17.743	17.781	17.819	17.857	17.895	17.933	17.971	18.009	18.047	18.085	18.123	18.161	18.199	18.237	18.275	18.313	18.351	18.389	18.427	18.465	18.503	18.541	18.579	18.617	18.655	18.693	18.731	18.769	18.807	18.845	18.883	18.921	18.959	19.000	19.040	19.080	19.120	19.160	19.200	19.240	19.280	19.320	19.360	19.400	19.440	19.480	19.520	19.560	19.600	19.640	19.680	19.720	19.760	19.800	19.840	19.880	19.920	19.960	20.000

SECTION ( 2 ) ORBITER FUELAGE DEPENDENT VARIABLE CP

M/LB	MAC ( 2 )	BEAT ( 2 )	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30																																																																																																																																																				
17.0	1.1225	0.273	0.199	0.239	0.292	0.335	0.373	0.411	0.449	0.487	0.525	0.563	0.601	0.639	0.677	0.715	0.753	0.791	0.829	0.867	0.905	0.943	0.981	1.019	1.057	1.095	1.133	1.171	1.209	1.247	1.285	1.323	1.361	1.399	1.437	1.475	1.513	1.551	1.589	1.627	1.665	1.703	1.741	1.779	1.817	1.855	1.893	1.931	1.969	2.007	2.045	2.083	2.121	2.159	2.197	2.235	2.273	2.311	2.349	2.387	2.425	2.463	2.501	2.539	2.577	2.615	2.653	2.691	2.729	2.767	2.805	2.843	2.881	2.919	2.957	2.995	3.033	3.071	3.109	3.147	3.185	3.223	3.261	3.299	3.337	3.375	3.413	3.451	3.489	3.527	3.565	3.603	3.641	3.679	3.717	3.755	3.793	3.831	3.869	3.907	3.945	3.983	4.021	4.059	4.097	4.135	4.173	4.211	4.249	4.287	4.325	4.363	4.401	4.439	4.477	4.515	4.553	4.591	4.629	4.667	4.705	4.743	4.781	4.819	4.857	4.895	4.933	4.971	5.009	5.047	5.085	5.123	5.161	5.199	5.237	5.275	5.313	5.351	5.389	5.427	5.465	5.503	5.541	5.579	5.617	5.655	5.693	5.731	5.769	5.807	5.845	5.883	5.921	5.959	6.000	6.040	6.080	6.120	6.160	6.200	6.240	6.280	6.320	6.360	6.400	6.440	6.480	6.520	6.560	6.600	6.640	6.680	6.720	6.760	6.800	6.840	6.880	6.920	6.960	7.000

MAC ( 2 ) = 2.239

BEAT ( 2 ) = -9.339









AVES 87-757 IAG OGA + S3 + T9 ORBITER FUSELAGE

(RBNB15)

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.394

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X\Y-B .5873 .5625 .7399 .7969 .9293 .9948 .9252 .9639 1.1115 1.1392

PHI

183.1111 -1.4891 -1.1291 .1931 .1231 -1.1281 -1.1181  
184.1111 -1.1231 -1.1781 -1.1681

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.575

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X\Y-B .1111 .1175 .1188 .1339 .1612 .1355 .1515 .1581 .1732 .1958 .2259 .2711 .3211 .3953 .5121

PHI

1111 1.2321 .8791 .3991 .1381 .1271 -1.1111 .1211 .1211 .1211 .1211 .1211 .1211 .1211 .1211 .1211  
1121.1111 .3821 .1281 .1211 .1381 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111  
1131.1111 .3881 .1281 .1481 -1.1311 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131 .1131  
1141.1111 .3551 .1181 -1.1181 -1.1311 -1.1191 .1191 .1191 .1191 .1191 .1191 .1191 .1191 .1191 .1191  
1151.1111 .3131 .1181 -1.1371 -1.1371 -1.1371 .1371 .1371 .1371 .1371 .1371 .1371 .1371 .1371 .1371  
1161.1111 .2691 -1.1191 -1.1381 -1.1111 -1.1321 .1321 .1321 .1321 .1321 .1321 .1321 .1321 .1321 .1321  
1171.1111 .2591 .1191 -1.1181 .1181 .1181 .1181 .1181 .1181 .1181 .1181 .1181 .1181 .1181 .1181  
1181.1111 .2781 .1481 .1411 .1431 .1431 .1431 .1431 .1431 .1431 .1431 .1431 .1431 .1431 .1431  
1191.1111 .1571 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111  
1201.1111 .1821 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111  
1211.1111 .1831 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111  
1221.1111 .1691 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111 .1111  
1231.1111 .12321 .8371 .2991 .1981 .1691 .1691 .1691 .1691 .1691 .1691 .1691 .1691 .1691 .1691  
1241.1111 .5873 .8625 .7399 .7969 .9293 .9948 .9252 .9639 1.1115 1.1392 .1691 .1691 .1691 .1691

X\Y-B

PHI

1111 -1.1421  
1121.1111 -1.1741 -1.1211 -1.1111 -1.1491 -1.1471 -1.1491 -1.1491 -1.1491 -1.1491 -1.1491 -1.1491 -1.1491 -1.1491  
1131.1111 -1.1911 -1.1891 -1.1771 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871  
1141.1111 -1.1791 -1.1821 -1.1711 -1.1651 -1.1681 -1.1781 -1.1781 -1.1781 -1.1781 -1.1781 -1.1781 -1.1781 -1.1781  
1151.1111 -1.1511 -1.1371 -1.1541 -1.1721 -1.1811 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711  
1161.1111 -1.1621 -1.1731 .1481 -1.1541 -1.1791 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871 -1.1871  
1171.1111 -1.1681 -1.1711 .1191 .1191 -1.1741 -1.1761 -1.1761 -1.1761 -1.1761 -1.1761 -1.1761 -1.1761 -1.1761  
1181.1111 -1.1741 -1.1511 .1521 .1431 -1.1431 -1.1431 -1.1431 -1.1431 -1.1431 -1.1431 -1.1431 -1.1431 -1.1431  
1191.1111 -1.1111 -1.1891 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711 -1.1711

AMES 87-707 1A9 OEA + S3 + 79 ORBITER FUSELAGE

(RBNS15)

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.730

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1500	.1539	.1642	.1355	.1546	.1581	.1732	.1958	.2259	.2711	.3240	.3953	.5120
PHI															
1.000	1.2190	.0240	.3780	.1240	.1440	.1580			.1870		.1130	.1260	-.1440	-.1320	-.1530
20.1440		.3390	.1430	.1410	-.1412				.1660		.1420				
40.1440		.3280	.1440	-.1420	-.1370				.1550		-.1020	-.1560	-.1670	-.1590	-.15990
55.1440		.3020	-.1460	-.1380	-.1420				-.1020		-.1150				
70.1440		.2540	-.1480	-.1540	-.1280				-.1180		.1470	-.1370	-.1520	-.1680	-.14830
90.1440		.6415	.2180	-.1310	-.1520	-.1280			-.1350		-.1020	-.1660	-.1730	-.1630	-.15790
120.1440			.2190	-.1430	-.1420	-.1420			-.1110		-.1620	-.1170	-.1190	-.1480	-.15530
142.1440				.1360	.1310	-.1210			.2470		-.1480	-.1170	-.1120	-.1490	-.14840
157.1440							.4380		.4810						
162.1440															
165.1440															
169.1440															
172.1440							.4680		.5070						
180.1440	1.2190	.8150	.2080	.1610	.1680	.1120			.6670		-.1480	-.1490	-.1180	-.1170	-.1310
X/L	.5873	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.1415	1.1592					

MACH ( 3 ) = 3.542 BETAT ( 1 ) = -0.710

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1500	.1539	.1642	.1355	.1546	.1581	.1732	.1958	.2259	.2711	.3240	.3953	.5120
PHI															
1.000	1.2380	.7480	.3650	.1330	-.1440	.1250			.1610		.1470	.1110	.1220	-.1440	-.1440
20.1440		.4240	.1660	.1410	.1530				.1940		.1590				
40.1440		.3450	.1650	.1690	.1310				.2490		.1190	.1660	-.1440	-.1320	.1170
55.1440		.6150	.1180	.1520	.1840				.3420		.2380				
70.1440		.8520	.1810	.1480	.1760				.1770		.2750	.1310	.1510	.1260	.1470
90.1440		1.1140	.2170	.1430	.1740				.1920		.2750	.1240	.1510	.1120	-.1440
120.1440			.3320	.2180	.1840				.2340		.1220	.1320	.1210	-.1510	-.14410



## AMES 87-707 IA9 OEA + S3 + T9 ORBITER FUSELAGE

(RBNS15)

MACH ( 3 ) = 3.942 BETAT ( 1 ) = -8.710

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1500	.1539	.1602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI										.1130					
142.1440									.5860		.14450	-.14230	-.14180	-.14180	-.14300
150.1440							.6650		.6330						
157.1440									.5690						
162.1440															
165.1440															
169.1440															
172.1440							.6280		.6810						
180.1440															
X/LB	.5073	.6625	.7360	.7869	.8263	.8848	.9262	.9639	1.1015	1.1092					

PHI

.1440	-.1320														
.1475	.1280														
.1500	.1890	.1420	.1460	.14690											
.1539	-.1430	-.1370	.1170	.1480	.1420										
.1602	-.1420	-.1370	.1190	.1390	.1260	.1340									
.1675	-.1490	.1490	.1490	.1490	.1490	.1490									
.1750	-.1520	.2440	.2440	.1670	.1460	.1440									
.1825	.1160	.1430	.1390	-.1530	-.1480	-.1480									
.1900	-.1470	-.1430	-.1420	-.1480	-.1710	-.1520									
.1975	-.1470	-.1420	.1430	-.1540	.1620	-.1440									
.2050	-.1490	-.1480	-.1470												

MACH ( 3 ) = 3.942 BETAT ( 2 ) = -6.520

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1475	.1500	.1539	.1602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
142.1440									.1460		.1520	.1480	-.1410	.1480	-.14320
150.1440									.1390		.1640	.1620	.1460	-.14300	-.14480
157.1440									.2150		.1950	.1620	-.1460	-.14300	-.14480
162.1440									.3180		.1960	.1490	.1430	.1480	-.14140
165.1440									.1460		.2470	.1490	.1430	.1480	-.14140
169.1440									.1410		.2180	.1460	.1430	.1480	-.14140
172.1440									.1690		.1690	.1450	.1480	.1480	-.14140
180.1440									.1640						
X/LB	.4310	.1380	.1120	.1510	.6450										

PHI

.6200

DATE 17 SEP 75 TABULATED PRESSURE DATA - IASC

(RBNB15)

AMES 87-757 IAG O2A + S3 + T9 ORBITER FUSELAGE

MACH ( 3 ) = 3.342 BETAT ( 2 ) = -6.520

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .0440 .0475 .0100 .0339 .0612 .1355 .1516 .1581 .1732 .1950 .2259 .2711 .3240 .3953 .5120

PHI 1.2010 .8470 .3480 .1370 .0870 .0100 .7040 -.0560 -.0690 -.0770 -.0840 -.0930

X/LB .5073 .6626 .7300 .7869 .8203 .8848 .9202 .9639 1.0115 1.0392

PHI -.0380 .0430 .0290 .1590 .1190 .0720 .0350 -.0760 -.0640

40.040 .0450 -.0450 -.0590 -.0900 -.1030 .0110 -.0200

70.040 .0440 .0550 .0510 .0460 .0130 .0110

90.040 .0440 .0550 .0510 .0460 .0390 .0140

110.040 .0440 .0550 .0510 .0460 .0320 .0410 .0150

130.040 .0440 .0550 .0510 .0460 .0250 .0550 .01520

150.040 .0440 .0550 .0510 .0460 .0180 .0660 .01520

160.040 .0440 .0550 .0510 .0460 .0110 .0720 .01200

MACH ( 3 ) = 3.342 BETAT ( 3 ) = -4.330

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .0440 .0475 .0100 .0339 .0612 .1355 .1516 .1581 .1732 .1950 .2259 .2711 .3240 .3953 .5120

PHI .1440 .1360 .4300 .4810 .5770 .5810 .5800 .5450 .4860 .4210 .1540 .1050 .1330

20.040 .4810 .5770 .5810 .5800 .5450 .4860 .4210 .1540 .1050 .1330

40.040 .5770 .5810 .5800 .5450 .4860 .4210 .1540 .1050 .1330

50.040 .5810 .5800 .5450 .4860 .4210 .1540 .1050 .1330

70.040 .5450 .4860 .4210 .1540 .1050 .1330

90.040 .4860 .4210 .1540 .1050 .1330

110.040 .4210 .1540 .1050 .1330

130.040 .1540 .1050 .1330

150.040 .1050 .1330

170.040 .1050 .1330

190.040 .1050 .1330

X/LB .5073 .6626 .7300 .7869 .8203 .8848 .9202 .9639 1.0115 1.0392

PHI .0440 .0450 .0290 .1590 .1190 .0720 .0350 -.0760 -.0640

.0440 .0450 .0290 .1590 .1190 .0720 .0350 -.0760 -.0640

.0440 .0450 .0290 .1590 .1190 .0720 .0350 -.0760 -.0640

.0440 .0450 .0290 .1590 .1190 .0720 .0350 -.0760 -.0640

.0440 .0450 .0290 .1590 .1190 .0720 .0350 -.0760 -.0640





DATE 17 SEP 73 TABULATED PRESSURE DATA - IA9C

(RBNB15)

AMES 87-707 IA9 OGA + S3 + T9 ORBITER FUSELAGE

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.660

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP													
Y/LB	PHI	.0175	.0188	.0339	.0602	.1355	.1906	.1981	.1732	.1958	.2259	.2711	.3200	.3953	.5120
1.2590	.8570	.4030	.0460	.0190	-.0260		.0910			.0460	.0130	-.0430	.0110	-.0330	
20.000	.3970	.0430	.0400	.0100	-.0290		.0360			.0730	.0370	-.0480	-.0230	-.0710	
40.000	.3910	.0420	.0420	.0120	-.0290		-.0240			-.0480	-.0480	-.0230	-.0440	-.0710	
55.000	.3700	.0410	.0400	.0100	-.0290		-.0210			-.0250	-.0400	-.0470	-.0490	-.0610	
70.000	.3140	.0420	.0410	.0110	-.0190		-.0180			-.0220	-.0610	-.0640	-.0530	-.0640	
90.000	.2680	.0110	.0180	.0160			-.0210			-.0310	-.0750	-.0810	-.0780	-.0590	
120.000	.2620	.0320	.0460	.0470			-.0280			-.0550	-.0830	-.0860	-.0790	-.0620	
140.000	.2820	.0610	.0460	.0610			.2690								
157.000							.5130								
162.000															
165.000															
169.000															
172.000															
180.000	1.2590	.8470	.3040	.0900	.0930		.0070								
.5873	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392						

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP													
Y/LB	PHI	.0175	.0188	.0339	.0602	.1355	.1906	.1981	.1732	.1958	.2259	.2711	.3200	.3953	.5120
1.2590	.8570	.4030	.0460	.0190	-.0260		.0910			.0460	.0130	-.0430	.0110	-.0330	
40.000	.3970	.0430	.0400	.0100	-.0290		.0360			.0730	.0370	-.0480	-.0230	-.0710	
70.000	.3910	.0420	.0420	.0120	-.0290		-.0240			-.0480	-.0480	-.0230	-.0440	-.0710	
90.000	.3700	.0410	.0400	.0100	-.0290		-.0210			-.0250	-.0400	-.0470	-.0490	-.0610	
105.000	.3140	.0420	.0410	.0110	-.0190		-.0180			-.0220	-.0610	-.0640	-.0530	-.0640	
110.000	.2680	.0110	.0180	.0160			-.0210			-.0310	-.0750	-.0810	-.0780	-.0590	
120.000	.2620	.0320	.0460	.0470			-.0280			-.0550	-.0830	-.0860	-.0790	-.0620	
135.000	.2820	.0610	.0460	.0610			.2690								
150.000	.2820	.0610	.0460	.0610			.5130								
165.000															
180.000	1.2590	.8470	.3040	.0900	.0930		.0070								

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 8.880

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP													
Y/LB	PHI	.0175	.0188	.0339	.0602	.1355	.1906	.1981	.1732	.1958	.2259	.2711	.3200	.3953	.5120
1.2190	.7420	.3520	.0230	.0400	.0190		.1430			.0350	.0160	.0180	-.0120	-.0470	
20.000	.3190	.0150	-.0250	-.0470			.0680			.0460	-.0210	-.0540	-.0630	-.0920	
40.000	.3120	.0150	-.0320	-.0290			-.0490			-.0290	-.0290	-.0540	-.0800	-.0920	
55.000	.2850	.0140	-.0330	-.0390			-.0320			-.0370	-.0500	-.0570	-.0620	-.0690	
70.000	.2320	.0120	-.0440	-.0360			-.0280			-.0450	-.0720	-.0750	-.0660	-.0680	
90.000	.2020	-.0290	-.0460	-.0340			-.0450			-.0570	-.0900	-.0950	-.0870	-.0670	
120.000	.2140	.0440	-.0220	-.0230			-.0610			-.0570	-.0900	-.0950	-.0870	-.0670	





AVES 07-757 1.9 ORA + 53 + 79 ORBITER FUELAGE

(REMB18)

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -0.1275

## SECTION 1 ORBITER FUELAGE DEPENDENT VARIABLE CP

X/LB	.5444	.5473	.5108	.5339	.5812	.5355	.5254	.5581	.5732	.5958	.5259	.5271	.5274	.5953	.5120
PHI															
21.140	1.2995	.9210	.4935	.3395	.5175	.1495			.5940		.5595	.5195	.5545	-.5475	-.5595
40.140			.5415	.5465	.5495	.5485			.5435		.5415				
55.140			.6302	.5985	.5995	.5385			.5585		.5595	-.5485	-.5475	-.5595	
71.140			.5725	.5295	.5295	.5285			.5595		.5115				
90.140			.5515	.5285	.5285	.5255			.5225		.5485	.5345	-.5395	-.5595	-.5585
120.140			.5945	.5295	.5275	.5245			.5445		.5195	.5285	-.5595	-.5595	-.5595
142.140			.4545	.5395	.5395	.5395			.5375		.5195	-.5285	-.5595	-.5595	-.5595
150.140			.3785	.5675	.5865	.5795			.5395		-.5595	-.5595	-.5595	-.5595	-.5595
157.140								.5085							
182.140									.5495						
195.140									.4595						
199.140															
172.140															
205.140	1.2995	.7915	.2485	.5615	.5815	.5385			.5295						
X/LB	.5973	.6028	.7285	.7699	.8283	.8848	.9282	.9639	1.0115	1.0392					

PHI

40.140	-.5385														
46.140	.5485		.5915	.5395	.5395	.5185	-.5585								
71.140	-.5485	-.5575	-.5575	-.5575	-.5475	-.5485									
90.140	-.5485	-.5585	-.5515	.5395	-.5315	-.5315									
115.140			.5515	.5995	.5395	-.5315									
120.140	-.5915	-.5945	.5975	.5965	.5215	-.5225									
135.140			.5715	.5995	-.5825	-.5395									
150.140	-.5995	-.5995	-.5995	-.5995	-.5415	-.5435									
165.140	-.5485		-.5385	.5395	-.5225	-.5285									
180.140	-.5385	-.5395	-.5395	-.5395	-.5285	-.5285									

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180

## SECTION 1 ORBITER FUELAGE DEPENDENT VARIABLE CP

X/LB	.5400	.5473	.5108	.5339	.5812	.5355	.5254	.5581	.5732	.5958	.5259	.5271	.5274	.5953	.5120
PHI															
21.140	1.3310	.9330	.5275	.3485	-.5585	.5925			.5395		.5940	.5595	.5545	-.5525	-.5785
40.140			.5945	.5725	.5995	.5845			.5485		.5315				
46.140			.6315	.5945	.5915	.5395			.5675		.5515	-.5285	-.5275	-.5585	-.5585
55.140			.6395	.5995	.5795	.5395			.5945		.5945				
71.140			.6085	.5875	.5875	.5845			.5275		.5275	-.5595	-.5595	-.5595	-.5585
90.140			.5425	.5395	.5395	.5385			.5215		.5275	.5295	-.5595	-.5595	-.5585
120.140			.4995	.5395	.5395	.5395			.5295		.5295	-.5595	-.5595	-.5595	-.5595
142.140			.3795	.5675	.5865	.5795			.5395		-.5595	-.5595	-.5595	-.5595	-.5595
150.140								.5085							
182.140									.4595						
195.140															
199.140															
172.140															
205.140	1.3310	.9330	.5275	.5615	.5815	.5385			.5295						
X/LB	.5400	.5473	.5108	.5339	.5812	.5355	.5254	.5581	.5732	.5958	.5259	.5271	.5274	.5953	.5120



AMES 07-7J7 IA9 OSA + S3 + T9 ORBITER FUSELAGE (RBR816)

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.18U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144U	.147U	.118U	.0339	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.321U	.3953	.512U
PHI										.033U					
142.14U				.399U	.178U	.141U		.594U	.316U		-.148U	-.155U	-.173U	-.183U	-.113U
151.14U									.323U						
157.14U							.474U								
162.14U															
165.14U															
169.14U															
172.14U							.328U		.643U						
181.14U	1.331U	.768U	.249U	.168U	.165U	.112U									
X/LB	.987U	.862U	.738U	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392					

PHI

144	-.148U														
4U.14U	.147U	.148U	.148U	.168U	.168U	-.133U		-.148U							
7U.14U	-.169U	-.163U	-.161U	-.162U	-.148U	-.167U	-.166U								
5U.14U	-.167U	-.174U	-.167U	-.163U	-.163U	-.162U	-.163U								
1U9.14U		.132U	.167U	.141U	.141U	-.147U									
11U.14U		-.199U	-.195U	.3U7U	.223U	.141U	-.141U		.119U						
12U.14U			.111U	.123U	-.114U	-.127U	-.168U		-.146U						
13U.14U		-.184U	-.177U	-.113U	-.124U	-.113U	-.198U								
15U.14U		-.183U	-.162U	.167U	.147U	.119U	-.136U								
16U.14U	-.197U	-.163U	-.164U												

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .16U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144U	.147U	.118U	.0339	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.321U	.3953	.512U
PHI															
142.14U				.399U	.178U	.141U		.594U	.218U		.114U	.179U	.131U	-.155U	-.113U
151.14U									.173U		.194U				
157.14U									.141U		.136U	.142U	-.141U	-.166U	-.162U
162.14U									.129U		.171U				
165.14U									.129U		.116U	-.116U	-.173U	-.188U	-.191U
169.14U									.112U		.134U	-.118U	-.179U	-.199U	-.113U
172.14U									.119U		.161U	-.158U	-.166U	-.112U	-.111U
181.14U	1.331U	.768U	.249U	.168U	.165U	.112U				-.199U					
X/LB	.987U	.862U	.738U	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392					

PHI

142.14U															
151.14U									.429U						
157.14U															
162.14U									.461U						
165.14U															
169.14U															
172.14U															
181.14U	1.331U	.768U	.249U	.168U	.165U	.112U									
X/LB	.987U	.862U	.738U	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392					









AMES 07-757 IAS OEA + 53 + 79 ORBITER FUSELAGE

(RBN816)

MACH ( 2 ) = 2.999      BETAT ( 2 ) = -6.36U

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.544U	.547U	.5188	.5339	.5612	.5355	.5516	.5581	.5732	.5938	.2711	.321U	.3953	.512U
PHI														
142.14U														
150.14U														
157.14U														
162.14U														
165.14U														
169.14U														
172.14U														
180.14U	1.274U	.748U	.255U	.078U	.063U	.063U	.527U	.615U	.615U					
X/LB	.5673	.6626	.736U	.7689	.8283	.8648	.9262	.9639	1.0415	1.0992				

PHI

40.14U	-.048U	.068U	.137U	.132U	.075U	.026U								
50.14U	-.053U	.068U	.137U	.132U	.075U	.026U								
70.14U	-.147U	-.072U	-.084U	-.058U	-.015U	-.026U	-.028U							
90.14U	-.143U	-.061U	-.059U	.021U	.013U	-.041U	.042U							
105.14U			-.043U	.055U	.073U	.018U	-.047U							
115.14U			-.077U	-.075U	.289U	.083U	.047U	-.043U						
125.14U			.073U	.068U	-.073U	-.095U	-.086U							
135.14U			-.082U	-.048U	-.042U	-.011U	-.011U	-.071U						
150.14U			-.078U	-.034U	-.048U	.048U	.048U	-.036U						
165.14U			-.097U	-.068U	-.073U									

MACH ( 2 ) = 2.999      BETAT ( 3 ) = -4.23U

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.500U	.5075	.5188	.5339	.5612	.5355	.5516	.5581	.5732	.5938	.2711	.321U	.3953	.512U
PHI														
100	1.317U	.922U	.433U	.069U	.044U	-.034U								
20.14U			.481U	.078U	.065U	-.032U								
40.14U			.394U	.139U	.054U	.069U								
55.14U			.848U	.171U	.114U	.152U								
70.14U			.589U	.171U	.087U	.119U								
90.14U			1.144U	.317U	.134U	.084U	.118U							
120.14U			.433U	.123U	.095U	.123U								
142.14U			.367U	.098U	.061U	.123U								
157.14U														
162.14U														
165.14U														
169.14U														
180.14U														

PHI

.536U



AMES 07-7J7 IA9 OCA + S3 + T9 ORBITER FUSELAGE

(R5-B16)

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .169

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7389	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392
PHI										
70.1440	-.0910	-.1440	-.1920	-.2720	-.3100	-.3120	-.3120	-.3730		
90.1440	-.1080	-.1690	-.2350	-.3400	-.3810	-.3910	-.3910	-.4530		
105.1440			-.1020	-.1620	-.1810	-.1780	-.1820			
110.1440							-.1620			
120.1440	-.1790	-.2790	.1190	.1610	-.1800	-.1740	-.1390	-.1430		
135.1440			.1610	.1810	-.1790	-.1500	-.1270			
150.1440	-.1670	-.1680	.1190	.1580	-.1870	-.1740	-.1220			
165.1440	-.1580		-.1370	.1640	.1600	-.1300	-.1030			
180.1440	-.1590	-.1590	-.1590	-.1590						

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.400

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0440	.1675	.3100	.4339	.5812	.7355	.8916	1.0581	1.2332	1.4156	1.6059	1.7952	2.0825	2.4675	2.9500
PHI															
140.1440	1.3130	.9240	.4330	.1490	.1430	-.1390									
20.1440			.4240	.1580	.1290	-.1330									
40.1440			.4400	.1620	.1410	-.1290									
55.1440			.4220	.1590	.1400	-.1220									
70.1440			.3720	.1500	-.1170	-.1130									
90.1440	.8120	.3160	.1110	-.1210	.1470										
120.1440			.2520	.1280	.1590	.1180									
142.1440			.2690	.1440	.1360	.1620									
150.1440							.4980								
162.1440															
165.1440															
169.1440															
172.1440															
180.1440	1.3130	.7710	.2620	.1170	.1670	.1840									
X/LB	.5873	.6626	.7389	.7869	.8283	.8848	.9262	.9639	1.0115	1.0392					

MACH ( 2 ) = 2.999

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0440	.1675	.3100	.4339	.5812	.7355	.8916	1.0581	1.2332	1.4156	1.6059	1.7952	2.0825	2.4675
PHI														
40.1440	-.1110	-.1110	-.1420	-.1480	-.1380	-.1880								
70.1440	-.1980	-.1980	-.1680	-.1740	-.1810	-.1920	-.1770							
90.1440	-.1880	-.1870	-.1680	-.1580	-.1620	-.1790	-.1680							
105.1440			-.1530	-.1560	-.1520	-.1730	-.1680							
110.1440								-.1030						
120.1440	-.1720	-.1780	.1370	.1430	-.1520	-.1710	-.1470	-.1430						
135.1440			.1380	.1130	-.1730	-.1710	-.1420							
150.1440	-.1620	-.1560	.1280	.1320	-.1410	-.1670	-.1480							







## AMES 87-717 IAS OEA + 93 + T9 ORBITER FUSELAGE

(RBMB16)

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.69U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.044U	.0475	.0488	.0339	.0612	.1355	.15U6	.1581	.1732	.1958	.2259	.2711	.324U	.3952	.512U
PHI															
142.0U0										.092U					
150.0U0				.388U	.116U	.096U	.138U		.5U8U						
157.0U0							.57UJ								
162.0U0									.556U						
165.0U0									.491U						
169.0U0															
172.0U0							.548U								
18U.0U0				1.138U	.733U	.249U	.074U	.063U	.079U						
X/LB	.5873	.6626	.738U	.7869	.8283	.8848	.9262	.9639	1.0U15	1.0992					

PHI

.044U	-.044U														
.0475	.033U	.157U	.13UJ	.09UJ	.044U										
.0488	-.029U	-.043U	-.036U	.046U	-.046U	-.044U									
.0339	-.034U	-.039U	.014U	.028U	.018U	.024U									
.0612	.043U	.047U	.079U	.048U	.027U										
.1355	-.061U	-.063U	.261U	.246U	.079U	.05UJ	.029U								
.15U6	.061U	.061U	.061U	-.061U	-.069U	-.064U									
.1581	-.061U	-.067U	-.041U	-.032U	-.092U	-.085U	-.064U								
.1732	-.063U	-.035U	-.035U	-.035U	-.046U	-.024U									
.1958	-.041U	-.091U	-.073U												

MACH ( 3 ) = 3.502

BETAT ( 2 ) = -6.5UJ

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.044U	.0475	.0488	.0339	.0612	.1355	.15U6	.1581	.1732	.1958	.2259	.2711	.324U	.3952	.512U
PHI															
.044U															
.0475	.871U	.414U	.049U	.014U	-.042U				.121U						
.0488	.471U	.081U	.024U	-.024U	-.024U				.06UJ						
.0339	.588U	.079U	.087U	.121U					.174U						
.0612	.617U	.126U	.132U	.136U					.169U						
.1355	.573U	.172U	.111U	.125U					.193U						
.15U6	.546U	.171U	.102U	.127U					.194U						
.1581	.462U	.174U	.106U	.129U					.083U						
.1732	.377U	.107U	.087U	.121U					.068U						
.1958									.068U						
.2259									.068U						
.2711									.068U						
.324U									.068U						
.3952									.068U						
.512U									.068U						

.545U



DATE 17 SEP 73 TABULATED PRESSURE DATA - 1A9C  
 AMES 87-757 1A9 OEA + 33 + T9 ORBITER FUSELAGE (REMB16)

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.320  
 SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP  
 X/LB .5873 .6826 .7380 .7869 .8283 .8848 .9282 .9639 1.0015 1.0392

PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI
70.000	-0.0990	-0.0790	-0.0690	-0.0630	-0.0990	-0.0410	-0.0390		
90.000	-0.0800	-0.0670	-0.0620	-0.0280	-0.0160	-0.0240	-0.0180		
105.000			-0.0360	-0.0040	-0.0190	0.0000	-0.0120	-0.0190	
115.000		-0.0740	-0.0750	-0.0420	-0.0070	0.0000	-0.0110	-0.0130	
120.000			0.0510	0.0700	-0.0480	-0.0810	-0.0680		
135.000		-0.0690	-0.0790	-0.0320	-0.0870	-0.0860	-0.0660		
150.000		-0.0710	-0.0450	-0.0180	-0.0390	-0.0250	-0.0410		
165.000		-0.0770	-0.0790	-0.0630					

MACH ( 3 ) = 3.502 BETAT ( 4 ) = 0.090  
 SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP  
 X/LB .0000 .0075 .0188 .0399 .0612 .1355 .1506 .1581 .1732 .1958 .2299 .2711 .3200 .3953 .5120

PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI
00.000	1.3590	0.9930	0.5100	0.0600	-0.0140	-0.0360		0.0240	0.1510	0.0660	0.0590	0.0110	-0.0270	
20.000		0.5210	0.0860	-0.0170	-0.0370		0.0370	0.0370	0.0540	0.0140	0.0000	-0.0140	-0.0290	
40.000		0.5620	0.0840	0.0390	-0.0390		0.0230	0.0610	0.0320	0.0120	-0.0290	-0.0410	-0.0560	
55.000		0.5510	0.0980	0.0690	0.0140		0.0370	0.0170	0.0170	-0.0270	-0.0440	-0.0440	-0.0630	
70.000		0.4990	0.0960	0.0390	0.0240		0.0410	0.0140	0.0140	-0.0550	-0.0610	-0.0490	-0.0710	
90.000		0.4180	0.0960	0.0360	0.0370		0.0340	0.0120	-0.0500	-0.0700	-0.0710	-0.0680	-0.0580	
120.000		0.3470	0.0820	0.0490	0.0560		0.3490		-0.0700	-0.0740	-0.0740	-0.0670	-0.0590	
142.000		0.3160	0.0760	0.0600	0.0800	0.5130		0.4560	-0.0700	-0.0790	-0.0740	-0.0680	-0.0540	
150.000								0.4750						
157.000								0.6520						
163.000														
169.000														
172.000														
180.000	1.3590	0.9930	0.2690	0.0640	0.0670	0.0810		0.9240	-0.0830	-0.0820	-0.0790	-0.0680	-0.0540	

MACH ( 3 ) = 3.502 BETAT ( 4 ) = 0.090  
 SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP  
 X/LB .5873 .6826 .7380 .7869 .8283 .8848 .9282 .9639 1.0015 1.0392

PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI	PHI
00.000	-0.0520	-0.0530	-0.0220	-0.0140	-0.0010	-0.0280	-0.0630	-0.0610	-0.0360	-0.0780				
40.000		-0.0810	-0.0920	-0.0890	-0.0790	-0.0790	-0.0620	-0.0620	-0.0510					
70.000		-0.0810	-0.0890	-0.0720	-0.0630	-0.0620	-0.0510	-0.0440						
90.000			-0.0490	-0.0410	-0.0560	-0.0560	-0.0440							
105.000		-0.0760	-0.0760	0.0410	0.0290	-0.0560	-0.0370	-0.0400						
120.000			0.0290	0.0590	-0.0550	-0.0730	-0.0390							
135.000		-0.0630	-0.0690	0.0280	-0.0620	-0.0540	-0.0390							



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TABULATED PRESSURE DATA - IA9C

PAGE 319

AVES 87-707 IA9 OZA + S3 + T9 ORBITER FUSELAGE

(RBN816)

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.680

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1956	.1581	.1732	.1956	.2239	.2711	.3200	.3953	.5120
PHI															
.000	1.1570	.0660	.4160	.0570	.0230	-.0480	.1160		.0290	.0680	.0680	.0640	-.0470	-.0460	-.0360
20.000			.3970	.0510	.0240	-.0570	.0290		.0290	.0580	.0580	.0510	-.0290	-.0580	-.0790
40.000			.3990	.0510	.0360	-.0430	-.0390		-.0390	.0270	.0270	-.0430	-.0290	-.0580	-.0790
55.000			.3710	.0520	-.0220	-.0420	-.0280		-.0280	.0280	.0280	-.0430	-.0290	-.0580	-.0790
70.000			.3110	.0510	-.0260	-.0290	-.0240		-.0240	.0280	.0280	-.0430	-.0290	-.0580	-.0790
90.000		.7040	.2570	.0440	-.0260	-.0130	-.0290		-.0290	.0280	.0280	-.0430	-.0290	-.0580	-.0790
120.000			.2280	.0130	-.0450	-.0240	-.0360		-.0360	.0210	.0210	-.0430	-.0290	-.0580	-.0790
142.000			.2370	.0350	.0260	.0360	.4210		.4210						
150.000															
157.000															
162.000															
165.000															
169.000															
176.000															
180.000															
X/LB	1.1570	.7990	.2590	.0770	.0590	.0670	.4110								
X/LB	.5870	.6620	.7360	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392					

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.910

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1956	.1581	.1732	.1956	.2239	.2711	.3200	.3953	.5120
PHI															
.000	1.1570	.0660	.4160	.0570	.0230	-.0480	.1160		.0290	.0680	.0680	.0640	-.0470	-.0460	-.0360
20.000			.3970	.0510	.0240	-.0570	.0290		.0290	.0580	.0580	.0510	-.0290	-.0580	-.0790
40.000			.3990	.0510	.0360	-.0430	-.0390		-.0390	.0270	.0270	-.0430	-.0290	-.0580	-.0790
55.000			.3710	.0520	-.0220	-.0420	-.0280		-.0280	.0280	.0280	-.0430	-.0290	-.0580	-.0790
70.000			.3110	.0510	-.0260	-.0290	-.0240		-.0240	.0280	.0280	-.0430	-.0290	-.0580	-.0790
90.000		.7040	.2570	.0440	-.0260	-.0130	-.0290		-.0290	.0280	.0280	-.0430	-.0290	-.0580	-.0790
120.000			.2280	.0130	-.0450	-.0240	-.0360		-.0360	.0210	.0210	-.0430	-.0290	-.0580	-.0790
142.000			.2370	.0350	.0260	.0360	.4210		.4210						
150.000															
157.000															
162.000															
165.000															
169.000															
176.000															
180.000															
X/LB	1.1570	.7990	.2590	.0770	.0590	.0670	.4110								
X/LB	.5870	.6620	.7360	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392					

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.910

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1355	.1956	.1581	.1732	.1956	.2239	.2711	.3200	.3953	.5120
PHI															
.000	1.1570	.0660	.4160	.0570	.0230	-.0480	.1160		.0290	.0680	.0680	.0640	-.0470	-.0460	-.0360
20.000			.3970	.0510	.0240	-.0570	.0290		.0290	.0580	.0580	.0510	-.0290	-.0580	-.0790
40.000			.3990	.0510	.0360	-.0430	-.0390		-.0390	.0270	.0270	-.0430	-.0290	-.0580	-.0790
55.000			.3710	.0520	-.0220	-.0420	-.0280		-.0280	.0280	.0280	-.0430	-.0290	-.0580	-.0790
70.000			.3110	.0510	-.0260	-.0290	-.0240		-.0240	.0280	.0280	-.0430	-.0290	-.0580	-.0790
90.000		.7040	.2570	.0440	-.0260	-.0130	-.0290		-.0290	.0280	.0280	-.0430	-.0290	-.0580	-.0790
120.000			.2280	.0130	-.0450	-.0240	-.0360		-.0360	.0210	.0210	-.0430	-.0290	-.0580	-.0790
142.000			.2370	.0350	.0260	.0360	.4210		.4210						
150.000															
157.000															
162.000															
165.000															
169.000															
176.000															
180.000															
X/LB	1.1570	.7990	.2590	.0770	.0590	.0670	.4110								
X/LB	.5870	.6620	.7360	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392					







AMES 87-707 IAS OEA + S3 + T9 ORBITER FUSELAGE

(R08B17)

MACH ( 1 ) = 2.499 BETAT ( 2 ) = -6.280

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3210	.3933	.5120
PHI															
.000	1.7070	.9790	.4870	.0340	.1030	.2310		.1830		.1580	.1090	.0540	.0260	.0260	.0420
20.000			.5390	.0700	.1190	.2790		.2260		.1110					
40.000			.6330	.1540	.1970			.3670		.1330	.0920	.0590	.0340	.0340	.1110
59.000			.7130	.2160	.1860	.2690		.4440		.3560					
70.000			.7630	.2270	.1980	.2870		.3250		.4230	.1720	.0700	.0900	.0900	.1090
90.000	1.3080		.8140	.2770	.2120	.2760		.3690		.4110	.1700	.0930	.0750	.0750	.0830
120.000			.8390	.3710	.3340	.3770		.4690		.2640	.0720	.1140	.0780	.0780	.0690
142.000								.1720							
150.000			.8180	.3720	.4140	.4990		1.0730		.1050	.0430	.0540	.0610	.0610	.0690
157.000							1.2780								
162.000								1.0770							
165.000								.9970							
169.000															
172.000							1.2700								
180.000	1.7070	1.3390	.6690	.3710	.3810	.5580		1.2710		-.0310	-.0290	.0110	.0210	.0210	-.0120

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.160

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3210	.3933	.5120
PHI															
.000	1.7160	.9830	.4390	.0180	.0210	.2160		.1140		.1250	.1560	.0780	.0680	.0680	.0990
20.000			.4780	.0300	.0510	.2180		.2210		.1260					
40.000			.5930	.1140	.0830	.1240		.2890		.1220	.0840	.0610	.0270	.0270	.0990
59.000			.6300	.1120	.1360	.2230		.3290		.3240					
70.000			.6910	.1740	.1490	.2230		.2440		.3930	.1920	.0470	.0710	.0710	.0860
90.000	1.3280		.7380	.2280	.1620	.2110		.2740		.2620	.1470	.0760	.0490	.0490	.0650
120.000			.7920	.3310	.2930	.3170		.4330		.1990	.0140	.0630	.0630	.0630	.0530

AMES 67-707 IAS OSA + S3 + T9 ORBITER FUSELAGE

(RBMB17)

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.16U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0400	.0475	.0508	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
142.040															
150.040															
157.040															
162.040															
165.040															
169.040															
172.040															
180.040	1.718U	1.333U	.673U	.377U	.382U	.582U									
X/LB	.5073	.6626	.7390	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

1.233U

1.217U

.132U

1.014U

1.038U

1.053U

1.285U

1.001U

PHI

-0.024U

0.037U

-0.029U

0.019U

0.015U

0.019U

0.019U

0.019U

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0.019U

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .06U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0400	.0475	.0508	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
140															
20.040															
40.040															
55.040															
70.040															
90.040															
120.040															
150.040															
165.040															
180.040	1.718U	1.333U	.673U	.377U	.382U	.582U									
X/LB	.5073	.6626	.7390	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

1.140U

1.258U

.068U

.685U

.953U

.997U

1.001U

1.001U

1.001U

1.001U

1.001U



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TABULATED PRESSURE DATA - IASC

AMES 87-707 IAS ORA + S3 + T9 ORBITER FUSELAGE

(RB817)

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.335

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5973	.6526	.7380	.7869	.8283	.8946	.9262	.9635	1.0015	1.0392
PHI										
71.1440	.0280	-.0080	-.0010	.0350	.0280	.0280	-.0030	-.0060		
91.1440	.0440	.0190	.0610	.0410	.0420	.0470	-.0140	-.0140		
111.1440			.0870	.0220	.0420	-.0460	-.0120		.0610	
121.1440	.0420	.0460	.2320	.0920	-.0730	-.0590	-.0430		.0110	
131.1440			.7090	.4510	-.0240	-.0480	.0120			
136.1440	.0330	.0460	.2230	.6120	.1210	.1140	.0940			
161.1440	-.0690		.1290	.5630	.2470	.1510	.0760			
181.1440	.0470	.0120	.0670							

MACH ( 1 ) = 2.499 BETAT ( 6 ) = 6.470

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1936	.2239	.2711	.3210	.3953	.5120
PHI															
140	.0980	.0670	.4570	.0320	.0640	.2410		.1510	.1120	.1010	.0480	.0220	.0240		
20.0000			.4370	.0280	.0460	.2080		.0110	.0140	.0110	.0520	.0190	-.0140		
41.1440			.4290	.0180	.0210	.0710		.0680	.0330	.0130	.0520	.0190	-.0140		
55.1440			.3940	.0170	.0110	.0710		.0880	.0190	-.0230	-.0540	.0410	.0480		
71.1440			.3780	-.0470	.0440	.0440		.0930	-.0480	-.0740	-.0630	-.0330	.0170		
91.1440	.0930	.0240	.0240	.0240	-.0120	.0330		.0480	-.0160	-.0140	-.0180	-.0820	-.0310		
121.1440			.5130	.1410	.1130	.1140		.0960	-.0200						
142.1440			.6870	.2320	.2670	.3730		.7050	-.0360	-.0790	-.0820	-.0330	-.0120		
151.1440							1.0280								
157.1440								.6930							
162.1440								.9840							
165.1440															
169.1440															
172.1440	1.0980	1.3310	.6540	.3630	.3790	.5090									
181.1440	.5973	.6826	.7380	.7869	.8283	.8946	.9262	.9639	1.0015	1.0392					

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1936	.2239	.2711	.3210	.3953	.5120
PHI															
140	.0630	.0110	.0110	.0110	.0110	.0110									
40.1440	-.0410	.0110	-.0680	-.0670	-.0670	-.0300	-.0150	-.0150							
71.1440		.0270	-.0070	-.0460	.0210	.0230	-.0160	-.0120							
91.1440		.0360	.0120	.0350	.0430	.0290	-.0190	-.0160							
111.1440			.0650	.0140	.0140	.0270	-.0180	-.0230							
111.1440		.0360	.0310	.0630	.0630	-.0930	-.0710	-.0410							
121.1440			.7130	.4430	.4430	-.0290	-.0410	-.0330							
131.1440		-.0490	-.0360	.3510	.3510	.1340	.0970	.0780							



## AVES 07-707 IAG ORA + S3 + T9 ORBITER FUSELAGE

(RB817)

MACH ( 2 ) = 2.999      BETAT ( 1 ) = -0.540

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.000	1.0790	1.0000	.4250	.0270	.0420	.1490		.1840		.1280	.1010	.1040	.0370	.0230	
20.000			.3190	.0620	.0450	.1420		.3150		.1390		.1410	.0630	.0880	.0820
40.000			.7050	.1700	.1000	.1710		.4270		.2070					
50.000			.8090	.2230	.2070	.2490		.3090		.4490					
70.000			.8860	.2850	.2400	.2470		.2840		.5070		.2580	.1430	.1510	.1420
90.000			1.5970	.9460	.2700	.2770		.3110		.2890		.2280	.1690	.1260	.1230
120.000				.9600	.3870	.4170		.5580		.2940		.0920	.0750	.1900	.0930
142.000							.2670								
150.000				.8990	.4350	.4240	.5120		1.2000	.1230	.0920	.0680	.0800	.0830	
157.000								1.3810							
162.000								1.2540		.0720	.0760	.0830	.0600	.0830	
165.000								1.1410							
169.000															
172.000															
180.000															
X/LB	.3870	.6625	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392					

MACH ( 2 ) = 2.999      BETAT ( 2 ) = -4.240

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.000	1.0010	1.0010	.1480	.2460	.1990	.0070	.0220								
20.000			.0340	.0410	.0910	.0870	.0580								
40.000			.0570	.0680	.1380	.1500	.1250								
50.000				.1830	.1810	.1980	.1250								
70.000				.5250	.3680	.0070	.1770								
90.000				.5550	.5010	.0480	.0900								
120.000				.1750	.2570	-.0170	.0680								
135.000				.1760	.3130	.1900	.2510								
150.000															
165.000															
180.000															
X/LB	.0000	.0075 <td>.0100</td> <td>.0339</td> <td>.0602</td> <td>.1355</td> <td>.1506</td> <td>.1581</td> <td>.1732</td> <td>.1958</td> <td>.2259</td> <td>.2711</td> <td>.3200</td> <td>.3953</td> <td>.5120</td>	.0100	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120

MACH ( 2 ) = 2.999      BETAT ( 2 ) = -4.240

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.000	1.9130	1.0110	.4180	.0230	.0330	.2010		.1390		.0580	.1410	.1080	.0600	.0350	
20.000			.4800	.0440	.0310	.1240		.2060		.1340					
40.000			.6170	.1160	.0670	.1430		.1490		.1970		.1160	.0870	.0610	.0550
50.000			.6880	.1610	.1290	.1920		.1990		.3640					
70.000			.7430	.2120	.1570	.1750		.1890		.2430		.1730	.1040	.0980	.1020
90.000			1.4660	.2680	.1820	.1840		.2060		.1850		.0660	.0870	.0880	.0820
120.000				.8540	.3750	.3080	.3070	.4340		.2070		.0360	.0290	.0560	.0680

(RBH017)

AMES 87-737 1A9 OEA + S3 + T9 ORBITER FUSELAGE

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.240

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP													
X/LB	.0000	.0075	.0138	.0339	.0612	.1355	.1956	.1981	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI										.1870					
142.000				.8480	.3710	.3930	.4630	1.2980	1.0730		.5910	.5500	.6290	.5320	.5570
150.000									1.1780			.6410	.6240	.5390	.5480
157.000									1.1430						
162.000															
165.000															
169.000															
172.000															
180.000	1.9130	1.4970	.7230	.4040	.3900	.5270	1.2990	1.4890	1.4890		.6030	.6110	.6230	.6180	.6590

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP													
X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0415	1.0392					
PHI															
.0000	.0380														
.0070	.0070	.1630	.1760	.1610	.1760	.1670	-.0590	-.1320							
.0140		.1040	.1110	.1080	.1080	.1070	.0520								
.0210		.0580	.0280	.0360	.0790	.0780	.0760								
.0280				.1490	.1120	.1030	.0560								
.0350									.1070						
.0420									.0910						
.0490															
.0560															
.0630															
.0700															
.0770															
.0840															
.0910															

MACH ( 2 ) = 2.799 BETAT ( 3 ) = .060

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP													
X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1956	.1581	.1732	1958	.2259	.2711	.3200	.3953	.5120
PHI															
.000	1.9240	1.0100	.4180	.6230	.6280	.2760			.1300		.5920	.1620	.1510	.1490	.5580
.007			.4470	.5900	.6260	.2430			.1610		.5540	.1990	.1980	.1550	.6010
.014			.5320	.5700	.6210	.1360			.1860		.5990	.1980	.1980	.1550	.6010
.021			.5750	.5710	.6650	.0980			.1190		.5990	.1980	.1980	.1550	.6010
.028			.6180	.6310	.6890	.0200			.0980		.5990	.1980	.1980	.1550	.6010
.035			.6610	.6780	.6900	.1040			.1360		.5990	.1980	.1980	.1550	.6010
.042			.7050	.6900	.6900	.2090			.2570		.5990	.1980	.1980	.1550	.6010
.049			.7790	.6480	.6480	.3980			.9370		.5990	.1980	.1980	.1550	.6010
.056															
.063															
.070															
.077															
.084															
.091															

1.3150



DATE 17 SEP 73 TABULATED PRESSURE DATA - 1A9C

AWF8 07-707 1A9 OEA + S3 + T9 ORBITER FUSELAGE (R08017)

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .060

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1075	.0180	.0339	.0602	.1355	.1516	.1581	.1732	.1956	.2711	.3207	.3953	.5120
PHI	180.000	1.9280	1.5140	.7240	.4020	.3940	.4740	1.4800	1.4800	.0250	.0250	.0250	.0250	.0250
X/LB	.5873	.6626	.7380	.7869	.8283	.8648	.9262	.9639	1.0015	1.0392				
PHI	.0370	.0370	.0390	.0390	.0320	-.0270	-.0270	-.0270	-.0270	-.0270	-.0970	-.1120		
40.000	.0630	.0230	-.0050	-.0050	.0420	.0420	.0240	.0240	.0240	.0240				
70.000	.0430	.0190	.0420	.0420	.0710	.0710	.0520	.0520	.0520	.0520				
90.000	.0500	.0120	.0690	.0730	.0510	.0510	.0270	.0270	.0270	.0270				
110.000	.0530	.0460	.2340	.1730	.1490	.1480	.1480	.1480	.1480	.1480				
120.000	.0430	.0470	.5430	.4620	.0070	.0360	.0450	.0450	.0450	.0450				
130.000	.0460	.0370	.2090	.3970	.0750	.1050	.1330	.1330	.1330	.1330				
150.000	.0370	.0340	.3280	.2720	.2430	.2430	.1420	.1420	.1420	.1420				
180.000	.0250	.0420	.0490											

MACH ( 2 ) = 2.939 BETAT ( 4 ) = 4.410

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.1075	.0180	.0339	.0602	.1355	.1516	.1581	.1732	.1956	.2711	.3207	.3953	.5120
PHI	180.000	1.9280	1.4430	.4110	.0490	.0470	.2120	.2120	.2120	.2120	.1410	.1610	.1610	.1610
20.000	.0380	.0380	.0380	.0380	.0380	.0380	.0380	.0380	.0380	.0380	.0380	.0380	.0380	.0380
40.000	.0470	.0330	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300
50.000	.0720	.0510	.0510	.0510	.0510	.0510	.0510	.0510	.0510	.0510	.0510	.0510	.0510	.0510
70.000	.0810	.0510	.0290	.0290	.0290	.0290	.0290	.0290	.0290	.0290	.0290	.0290	.0290	.0290
90.000	1.1360	.5230	.1140	.0990	.0990	.0990	.0990	.0990	.0990	.0990	.0990	.0990	.0990	.0990
120.000	.6140	.2130	.1630	.1580	.1580	.1580	.1580	.1580	.1580	.1580	.1580	.1580	.1580	.1580
140.000	.6930	.2020	.2960	.3250	.3250	.3250	.3250	.3250	.3250	.3250	.3250	.3250	.3250	.3250
150.000														
160.000														
165.000														
169.000														
170.000														
175.000														
180.000														

X/LB .5873 .6626 .7380 .7869 .8283 .8648 .9262 .9639 1.0015 1.0392

PHI .0370 .0370 .0390 .0390 .0320 -.0270 -.0270 -.0270 -.0270 -.0270 -.0970 -.1120

40.000 .0630 .0230 -.0050 -.0050 .0420 .0420 .0240 .0240 .0240 .0240 .0240 .0240 .0240 .0240

70.000 .0430 .0190 .0420 .0420 .0710 .0710 .0520 .0520 .0520 .0520 .0520 .0520 .0520 .0520

90.000 .0500 .0120 .0690 .0730 .0510 .0510 .0270 .0270 .0270 .0270 .0270 .0270 .0270 .0270

110.000 .0530 .0460 .2340 .1730 .1490 .1480 .1480 .1480 .1480 .1480 .1480 .1480 .1480 .1480

120.000 .0430 .0470 .5430 .4620 .0070 .0360 .0450 .0450 .0450 .0450 .0450 .0450 .0450 .0450

130.000 .0460 .0370 .2090 .3970 .0750 .1050 .1330 .1330 .1330 .1330 .1330 .1330 .1330 .1330

150.000 .0370 .0340 .3280 .2720 .2430 .2430 .1420 .1420 .1420 .1420 .1420 .1420 .1420 .1420

180.000 .0250 .0420 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490 .0490



DATE 17 SEP 75 TABULATED PRESSURE DATA - IASC  
 ARES 07-707 IAS OCA + S3 + T9 ORBITER FUSELAGE (R08017)

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 0.780

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5075 .6028 .7380 .7889 .8283 .8848 .9282 .9639 1.1015 1.1092

PHI  
 185.144 -0.0560 .0530 .1370 .0510 .0160 -0.0310  
 180.144 -0.0640 -0.0540 -0.0180

MACH ( 3 ) = 3.342 BETAT ( 1 ) = -0.700

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .1000 .1075 .0188 .1039 .1612 .1395 .1516 .1581 .1732 .1938 .2239 .2711 .3824 .3993 .3120

PHI  
 .140 2.1079 1.1078 .4480 .0740 .1090 .1180 .2710 .1280 .1480  
 20.144 .5360 .1620 .1620 .1160 .1230 .2130 .2130 .1680 .1680 .1480  
 40.144 .7460 .1890 .1160 .2320 .1270 .1710 .1990 .1610 .1610 .1620  
 55.144 .8570 .2910 .2160 .2150 .2680 .4160 .2670 .1750 .1630 .1510  
 70.144 .9720 .3370 .2550 .2480 .2580 .3120 .2670 .1590 .1590 .1320  
 90.144 1.1440 .4120 .2810 .2810 .2680 .2920 .1390 .1590 .1320 .1320  
 120.144 1.1070 .4840 .4190 .4320 .3030 .2970 .1110 .1660 .1160 .1160  
 142.144 .9830 .4560 .5210 .1230 .1160 .1160 .1160 .1470 .1470 .1470  
 150.144 .9830 .4560 .5210 1.4440 1.2320 .1680 .1680 .1940 .1540 .1780  
 157.144 1.2480 1.2480  
 167.144 1.2930 1.5670  
 169.144 1.5670  
 172.144 1.5670  
 180.144 1.5670 .6280 .6280 .6280 .9282 .9639 1.1015 1.1092

X/LB .5075 .6028 .7380 .7889 .8283 .8848 .9282 .9639 1.1015 1.1092  
 PHI  
 .140 .1110 .2380 .2110 .1130 .1610 -0.0970 -0.0780  
 40.144 .1030 .1180 .0740 .1630 .0590 .0810 -0.0450  
 70.144 .1030 .1180 .0740 .1630 .0590 .0810 .1360  
 90.144 .1030 .1180 .0740 .1630 .0590 .0810 .1260  
 110.144 .1030 .1180 .0740 .1630 .0590 .0810 .1360  
 120.144 .1030 .1180 .0740 .1630 .0590 .0810 .1360  
 130.144 .1030 .1180 .0740 .1630 .0590 .0810 .1360  
 140.144 .1030 .1180 .0740 .1630 .0590 .0810 .1360  
 150.144 .1030 .1180 .0740 .1630 .0590 .0810 .1360  
 160.144 .1030 .1180 .0740 .1630 .0590 .0810 .1360

DATE 17 SEP 75 TABULATED PRESSURE DATA - IASC  
 ANCS 07-707 IAS ORA + 53 + 75 ORBITER FUELAGE (REMOB17)

MACH (3) = 3.502 BETAT (2) = -0.310

SECTION (1) ORBITER FUELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1508	.1991	.1732	.1920	.2239	.2711	.3260	.3953	.5122
PHI															
.100	2.1130	1.0780	.6430	.0570	.0450	.1390		.1780		.1920	.1680	.1330	.1110	.1000	.0410
20.000	.9250	.0750	.0370	.1190		.1190		.1970		.1970	.1790	.1600	.1540	.1790	.1790
40.000	.7030	.1000	.0800	.2200		.2200		.2270		.2400	.2400	.2400	.1600	.1790	.1790
55.000	.8070	.1790	.1690	.1050		.1050		.2170		.2620	.2620	.1600	.1690	.1370	.1290
70.000	.0990	.2900	.2100	.2020		.2020		.2330		.2330	.1900	.1700	.1200	.1100	.1100
90.000	1.0000		.9000	.3550	.2400	.2350		.2300		.2300	.1700	.1420	.1000	.1000	.1000
120.000	.9970	.4400	.3670	.3070		.3070		.4500		.2500	.1600	.1420	.1000	.1000	.1000
140.000	.9550	.4400	.4210	.4900		.4900		1.1000		.1600	.1600	.1600	.1600	.1600	.1600
150.000							1.0150								
157.000							1.3190								
160.000								1.2500							
165.000								1.0100							
169.000							1.3300								
172.000	2.1030	1.0300	.7790	.4200	.3930	.4020		1.0100			.0700	.0520	.0700	.0370	.1000
180.000	.5075	.0020	.7500	.7000	.0200	.0040	.5900	.9000	1.1015	1.0300	.1020	.0270	.0110	.0190	.0670

MACH (3) = 3.502 BETAT (3) = -0.302

SECTION (1) ORBITER FUELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1508	.1991	.1732	.1920	.2239	.2711	.3260	.3953	.5122
PHI															
.100	2.1180	1.0720	.6380	.0550	.0390	.1180		.1990		.1920	.1680	.1330	.1110	.1000	.0420
20.000	.9200	.0800	.0400	.1420	.1220	.1220		.1820		.1820	.1700	.1600	.1600	.1700	.1700
40.000	.6820	.1310	.1000	.1900	.1900	.1900		.1790		.1800	.1800	.1800	.1800	.1800	.1800
55.000	.7430	.2000	.1300	.1400	.1400	.1400		.1600		.1600	.1600	.1600	.1600	.1600	.1600
70.000	.0100	.2410	.1700	.1810	.1810	.1810		.1790		.1790	.1790	.1790	.1790	.1790	.1790
90.000	1.0000		.9000	.3900	.2900	.2900		.4200		.2900	.1800	.1600	.1200	.1200	.1200
120.000	.9940	.4030	.3200	.3200	.3200	.3200		.4200		.2900	.1800	.1600	.1200	.1200	.1200
140.000	.9500	.4030	.4030	.4030	.4030	.4030		.4030		.4030	.4030	.4030	.4030	.4030	.4030
150.000															
157.000															
160.000															
165.000															
169.000	2.1030	1.0300	.7790	.4200	.3930	.4020		1.0100			.0700	.0520	.0700	.0370	.1000
172.000	.5075	.0020	.7500	.7000	.0200	.0040	.5900	.9000	1.1015	1.0300	.1020	.0270	.0110	.0190	.0670





DATE 17 SEP 73 TABULATED PRESSURE DATA - IASC

AMES 07-707 1A9 OEA \* S3 \* T9 ORBITER FUSELAGE

00000171

MACH ( 3 ) = 3.542 BETAT ( 5 ) = 4.490

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5973	.6826	.7380	.7808	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI										
70.144	.1130	-.1420	-.1440	.1480	-.1480	-.1300	-.1300	.1420		
90.144	.4210	.5110	.5310	.5440	-.1440	-.1310	-.1310	.1480		
105.144			.1740	.1280	-.1590	-.1280	-.1280	.1470		
115.144								.1180		
125.144	.1240	.1240	.1650	.1740	-.1570	-.1420	-.1420	-.1420	.1070	
135.144			.8120	.3730	-.1590	-.1290	-.1270	.1670		
150.144	.1430	.1440	.1310	.4840	.1420	.1280	.1280	.1590		
165.144	-.1480		.1210	.2930	.1280	.1390	.1390	.1660		
180.144	.5140	.5130	.1430							

MACH ( 3 ) = 3.542 BETAT ( 6 ) = 6.714

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1440	.1473	.1189	.1339	.1462	.1355	.1506	.1501	.1752	.1958	.2259	.2711	.3240	.3933	.5120
PHI															
140	2.10790	1.1480	.4390	.1550	.1390	.1350			.1740		.1490	.1330	.1440	.17710	.14810
20.144	.4190	.1430	.1430	.1490	.1290	.1290			.1380		.1540	.1210	.1320	.1430	.14710
40.144	.4580	.1420	.1410	.1410	.1480				.1140		.1250	.1420	.1320	.1430	.14710
55.144	.4740	.1480	.1480	.1480	.1480				.1540		.1780	.1540	.1320	.1430	.14710
70.144	.4730	.1580	.1240	.1480					.1290		.1490	-.1510	-.1680	-.1520	.14710
90.144	1.1690	.5140	.1970	.1430	.1410				.1590		.1540	-.1530	-.1520	-.1480	.14710
120.144	.6180	.2170	.1920	.1390					.1330	.1610	.1480	-.1530	-.1470	-.1570	.14710
142.144				.2890	.3260				.7590		.1280	-.1470	-.1480	-.1480	.1430
150.144									1.1370						
157.144															
162.144															
165.144															
169.144															
172.144															
180.144	2.10790	1.6330	.7680	.4110	.3970	.4440			1.1540		-.1280	-.1440	.1480	.1430	.14710
PHI															
185.144															
189.144															
172.144															
180.144	2.10790	1.6330	.7680	.4110	.3970	.4440			1.2110		-.1280	-.1440	.1480	.1430	.14710
PHI															
195.144															
200.144															
205.144															
210.144															
215.144															
220.144															
225.144															
230.144															
235.144															
240.144															

X/LB	.5973	.6826	.7380	.7808	.8283	.8848	.9262	.9639	1.0015	1.0392
PHI										
40.144	.1400	-.1400	.1400	-.1400	-.1400	-.1400	-.1400	-.1400	-.1400	-.1400
70.144	.1400	-.1400	.1400	-.1400	-.1400	-.1400	-.1400	-.1400	-.1400	-.1400
90.144	.1400	-.1400	.1400	-.1400	-.1400	-.1400	-.1400	-.1400	-.1400	-.1400
105.144										
115.144										
125.144	.1400	.1400	.1400	.1400	-.1400	-.1400	-.1400	-.1400	-.1400	-.1400
135.144										
150.144	.1400	.1400	.1400	.1400	.1400	.1400	.1400	.1400	.1400	.1400
165.144	-.1400		.1400	.1400	.1400	.1400	.1400	.1400	.1400	.1400
180.144	.5140	.5130	.1430							









DATE 17 SEP 73 TABULATED PRESSURE DATA - IA9C

AMES 87-707 IAS ORA + S3 + T9 ORBITER FUSELAGE

(R050310)

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.180

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1906	.1981	.1732	.1936	.2259	.2711	.3200	.3953	.5120
PHI															
142.000															
150.000															
157.000															
162.000															
167.000															
169.000															
172.000															
180.000															
X/LB	.5875	.6626	.7390	.7869	.8283	.8648	.9282	.9639	1.0015	1.0392					
PHI															
00.000															
40.000															
70.000															
90.000															
110.000															
120.000															
130.000															
150.000															
165.000															
180.000															

MACH ( 1 ) = 2.499 BETAT ( 4 ) = .060

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1906	.1981	.1732	.1936	.2259	.2711	.3200	.3953	.5120
PHI															
20.000															
40.000															
55.000															
70.000															
90.000															
120.000															
142.000															
150.000															
157.000															
162.000															
169.000															
180.000															
X/LB	1.5910	.9010	.3760	.0030	.0280	.2190									
PHI															
20.000															
40.000															
55.000															
70.000															
90.000															
120.000															
142.000															
150.000															
157.000															
162.000															
169.000															
180.000															

1.0740



DATE 17 SEP 75 TABULATED PRESSURE DATA - 1A5C

AXES 07-707 1A9 CEA + S3 + T9 ORBITER FUSELAGE

(R08018)

MACH ( 1 ) = 2.490 BETAT ( 9 ) = 4.310

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5973	.6626	.7392	.7869	.8283	.8648	.9262	.9639	1.1415	1.1092
PHI										
70.1440	-.1230	-.1420	-.1493	-.1210	-.1230	-.1480	-.1441			
90.1440	-.1460	-.1620	.0111	-.0930	-.1050	-.1030	-.1030			
110.1440			.0340	-.0140	-.1620	-.1420	-.1490	.0090		
120.1440	-.1010	-.1050	.1680	.0630	-.1690	-.1780	-.1060	-.1210		
130.1440			.5970	.3620	-.1440	-.1430	-.1180			
150.1440	.0780	.1440	.1920	.4870	.0580	.0510	.0380			
160.1440	-.1240		.0480	.4310	.1760	.0860	.0420			
180.1440	-.1090	-.1060	.0630							

MACH ( 1 ) = 2.490 BETAT ( 6 ) = 6.430

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1660	.0075	.0160	.0339	.1612	.1355	.1916	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
PHI															
144.1440	1.5580	.9140	.3680	.0180	.1420	.2380			.1470	.0410	.0450	.0250	-.0110	-.1460	
20.1440			.3750	.0120	.0290	.1820			.1160	.0410	.0790	.0130	-.1410	-.1030	
40.1440			.3680	.0110	.0140	.1450			.0630	.0330	.0790	.0130	-.1410	-.1030	
50.1440			.3520	.0100	-.0110	.0380			.0520	.0700	.0700	-.1020	-.1280	-.1280	
70.1440			.3310	-.1270	-.0170	.0150			.0520	.0410	-.1070	-.1030	-.1030	-.1280	
90.1440	.0930	.3450	-.1450	-.0290	.0110				.0540	.0410	-.1070	-.1030	-.1030	-.1280	
120.1440			.4180	.0870	.0610	.0580			.0540	-.1060	-.1210	-.1210	-.1070	-.1120	
142.1440			.4980	.1740	.1610	.2350			.5780	-.1060	-.1110	-.1060	-.1060	-.1060	
150.1440								.8730							
157.1440									.7680						
162.1440															
165.1440									.8420						
169.1440															
172.1440	1.5580	1.1870	.5360	.2670	.2730	.3570	1.1020		1.10870						
180.1440	.5973	.6626	.7392	.7869	.8283	.8648	.9262	.9639	1.1415	1.1092					

MACH ( 1 ) = 2.490 BETAT ( 6 ) = 6.430

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1660	.0075	.0160	.0339	.1612	.1355	.1916	.1581	.1732	.1958	.2259	.2711	.3210	.3953	.5120
PHI															
40.1440	-.1020	-.1010	-.0640	-.1120	-.1380	-.1520			-.1480						
70.1440	-.1020	-.0440	-.0470	-.0240	-.0220	-.0900			-.0920						
90.1440	-.1020	-.0270	.0030	-.0480	-.0110	-.1410			-.0490						
110.1440			.0380	-.1240	-.0120	-.0530			-.0560						
120.1440	-.1020	-.0140	.1720	.0410	-.1140	-.1080			-.0690						
130.1440			.5910	.3750	-.0930	-.0710			-.0540						
150.1440	-.10470	-.0540	.0810	.2390	.0630	.0520			.0250						

## AMES 87-707 IA9 O2A + S3 + T9 ORBITER FUSELAGE

(RBND18)

MACH ( 1 ) = 2.498      BETAT ( 6 ) = 6.43U

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB    .5873    .6626    .7380    .7869    .8283    .8848    .9282    .9639    1.0013    1.0392

PHI  
165.144U    -.1489U    .176U    .294U    .163U    .136U    -.144U  
185.144U    -.198U    -.164U    .142U

MACH ( 1 ) = 2.498      BETAT ( 7 ) = 8.56U

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB    .1427U    .1475    .1488    .1539    .1612    .1355    .1516    .1581    .1732    .1938    .2299    .2711    .3214    .3953    .512U

PHI  
1.548U    .948U    .369U    .142U    .139U    .292U    .124U    .124U    .1468U  
2U.144U    .339U    -.1448U    .144U    .218U    .13U  
4U.144U    .333U    -.111U    -.114U    .165U    .118U    -.137U    -.167U    -.174U  
55.144U    .318U    -.144U    -.139U    .121U    .142U    .157U    .167U    .148U    -.137U    -.143U    -.162U  
7U.144U    .284U    -.1558U    -.142U    -.113U    .128U    .167U    .169U    .189U    .197U    .162U  
9U.144U    .838U    .297U    .1035U    .156U    .118U    -.118U    -.118U    .139U    .194U    .162U  
12U.144U    .374U    .159U    .133U    .133U    -.139U  
142.144U    .482U    .156U    .163U    .193U    -.142U    -.121U    -.111U    -.167U    -.177U  
15U.144U    .784U  
157.144U    .751U  
162.144U    .837U  
165.144U    .938U  
169.144U    .164U  
172.144U    1.164U  
18U.144U    1.548U    1.179U    .527U    .267U    .271U    .375U    1.003U    1.003U    1.003U    1.003U    1.003U

X/LB    .5873    .6626    .7380    .7869    .8283    .8848    .9282    .9639    1.0013    1.0392

PHI  
1.144U    -.124U  
4U.144U    -.179U    -.101U    -.109U    -.138U    -.141U    -.124U  
7U.144U    -.148U    -.148U    -.129U    -.121U    -.197U    -.157U  
9U.144U    -.111U    -.139U    -.141U    -.119U    -.152U    -.161U  
1U5.144U    .141U    -.124U    .118U    .162U    .162U  
11U.144U    .122U    .123U    .119U    .116U    .165U    .167U  
12U.144U    .345U    .364U    .168U    .163U    .171U  
135.144U    -.112U    -.111U    .164U    .132U    .147U    .167U  
15U.144U    -.1148U    .128U    .138U    .149U    .132U    .179U  
165.144U    -.142U    -.114U    -.154U







DATE 17 SEP 73 TABULATED PRESSURE DATA - IASC

AVES 07-707 1A9 OBA + S3 + T9 ORBITER FUSELAGE

(RB 010)

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .060

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	.1420	.1075	.0100	.0339	.0612	.1355	.1506	.1561	.1732	.1958	.2259	.2711	.3210	.3933	.5120
PHI																
180.1440	1.7400	1.3080	.9080	.2990	.2080	.3400				1.2470						
X/LB	.5875	.6828	.7580	.7669	.8203	.8846	.9262	.9639	1.1415	1.0392						
PHI																
.1440	-.0190	.0330	.0190	.0680	.0190	-.0700	-.0720									
40.1440	.0190	-.0210	-.0440	-.0470	-.0210	-.0310	-.0630	-.0210								
70.1440	-.0210	-.0550	-.0290	-.0190	-.0190	-.0110	-.0280	-.0420								
90.1440	-.0550	-.0290	-.0290	.0360	.0280	-.0230	-.0280	-.0480								
110.1440	.0360	.0280	.0280	.0010	.2480	.1290	-.0380	-.0650	-.0480	.0170						
120.1440	.0010	.2480	.1290	.2480	.3580	.3650	-.0390	-.0420	.0180							
130.1440	.3580	.3650	.3650	.1440	.1440	.2890	-.0630	.0310	.0880							
150.1440	.1440	.1440	.1440	.1430	.1430	.2410	.1610	.1370	.0740							
165.1440	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430							
180.1440	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430							

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.390

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	.0000	.0075	.0100	.0339	.0612	.1355	.1516	.1561	.1732	.1958	.2259	.2711	.3210	.3933	.5120
PHI																
.1440	1.7110	.9130	.3690	.0240	.0120	.0780				.1170						
20.1440	.9130	.3690	.0240	.0120	.0780	.0520				.0910						
40.1440	.3690	.0240	.0120	.0780	.0520	.0230				.0540						
55.1440	.0240	.0120	.0780	.0520	.0230	.0230				.0260						
70.1440	.0120	.0780	.0520	.0230	.0230	.0230				.0180						
90.1440	.0780	.0520	.0230	.0230	.0230	.0230				.0140						
120.1440	.0520	.0230	.0230	.0230	.0230	.0230				.1120						
142.1440	.0230	.0230	.0230	.0230	.0230	.0230				.0360						
157.1440	.0230	.0230	.0230	.0230	.0230	.0230				.0860						
162.1440	.0230	.0230	.0230	.0230	.0230	.0230				.0860						
165.1440	.0230	.0230	.0230	.0230	.0230	.0230				.0930						
169.1440	.0230	.0230	.0230	.0230	.0230	.0230				.0930						
172.1440	.0230	.0230	.0230	.0230	.0230	.0230				.0930						
180.1440	.0230	.0230	.0230	.0230	.0230	.0230				.0930						
X/LB	.5875	.6828	.7580	.7669	.8203	.8846	.9262	.9639	1.1415	1.0392						
PHI																
.1440	-.0130	.0330	.0190	.0680	.0190	-.0700	-.0720									
40.1440	.0190	-.0210	-.0440	-.0470	-.0210	-.0310	-.0630	-.0210								
70.1440	-.0210	-.0550	-.0290	-.0190	-.0190	-.0110	-.0280	-.0420								
90.1440	-.0550	-.0290	-.0290	.0360	.0280	-.0230	-.0280	-.0480								
110.1440	.0360	.0280	.0280	.0010	.2480	.1290	-.0380	-.0650	-.0480	.0170						
120.1440	.0010	.2480	.1290	.2480	.3580	.3650	-.0390	-.0420	.0180							
130.1440	.3580	.3650	.3650	.1440	.1440	.2890	-.0630	.0310	.0880							
150.1440	.1440	.1440	.1440	.1430	.1430	.2410	.1610	.1370	.0740							
165.1440	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430							
180.1440	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430							











DATE 17 SEP 73 TABULATED PRESSURE DATA - IA9C

AMES 87-707 IAS OCA + S3 + T9 CRBITER FUSELAGE

(RDNB10)

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.470

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.3973	.6628	.7390	.7669	.8283	.8648	.9282	.9639	1.0015	1.0392
PHI										
70.1440	-.1270	-.0410	-.0390	-.0300	-.0320	-.0480	-.0270			
90.1440	-.1050	-.0180	-.0160	-.0120	-.0210	-.0390	-.0170			
105.1440			.0430	.0120	-.0260	-.0410	-.0170			
110.1440							.0670			
120.1440	.0410	.0000	.0000	.0570	-.0580	-.0590	-.0280			
130.1440			.5330	.3390	-.0220	-.0330	.0010			
130.1440	-.0210	-.0120	.0070	.4320	.0310	.0120	.0370			
160.1440	-.0320		.0160	.2220	.0400	.0310	.0390			
180.1440	-.0180	-.0230	.0230							

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.670

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0108	.0339	.0612	.0355	.0306	.0581	.0732	.0956	.0299	.0271	.0360	.0953	.0120
PHI															
100.1440	1.0210	.9490	.3900	.0380	.0180	.0670					.0770	.0080	.0740	.0440	.0130
20.1440		.3670	.0220	.0440	.0740						.0560	.0110	.0170	-.0140	-.0240
40.1440		.3950	.0210	-.0100	.0440						.0340				
55.1440		.4090	.0210	-.0190	.0190						.0130	-.0290	-.0410	-.0180	.0420
70.1440		.3990	.0200	.0000	.0190						-.0170	-.0190	-.0190	-.0180	-.0280
90.1440	1.0320	.4240	.0440	.0130	.0190						.0190	-.0100	-.0600	-.0560	-.0190
120.1440		.4900	.0390	.0930	.0930				.0480						
142.1440		.5620	.2030	.0930	.2350			.0460							
150.1440															
157.1440									.9620						
162.1440															
165.1440															
180.1440									1.0160						
172.1440	1.0210	1.3740	.6070	.2050	.2780	.3160									
180.1440							1.0080								
X/LB	.3973	.6628	.7390	.7669	.8283	.8648	.9282	.9639	1.0015	1.0392					

X/LB	.0170	.0470	.0620	.0680	.0760	.0840	.0940	.1040	.1140	.1240	.1340	.1440	.1540	.1640	.1740
PHI															
40.1440	-.0170	-.0470	-.0620	-.0680	-.0760	-.0840	-.0940	-.1040	-.1140	-.1240	-.1340	-.1440	-.1540	-.1640	-.1740
70.1440															
90.1440															
105.1440															
110.1440															
120.1440	-.0180	-.0100	.0070	-.0120	-.0040	-.0780	-.0390	-.0390	-.0280	-.0120					
130.1440			.3930	.3030	-.0570	-.0640	-.0150	-.0150	-.0210						
130.1440	-.0340	.0420	.0380	.0610	.0150	-.0120	-.0120	-.0210							







AVES 87-707 IAG OCA + S3 + T9 ORBITER FUSELAGE

(RBNB19)

MACH ( 1 ) = 2.499 BETAT ( 2 ) = -6.310

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0602	.1355	.1506	.1581	.1732	.1950	.2259	.2711	.3224	.3953	.5124
PHI															
.140	1.4480	.9190	.4590	.0350	.0620	.1180		.1390		.1650	.1640	.1640	.16370	-.16230	-.15530
20.140			.5110	.0750	.1090	.2210		.1670		.1640	.1940	.1640	.1640	-.16290	.16170
40.140			.6230	.1440	.1290	.1930		.2160		.2290	.2920	.3110	.3110	.3110	.3110
55.140			.6610	.1490	.1700	.3070		.3720		.3350	.3970	.3290	.3290	.3290	.3290
70.140			.6810	.1930	.1580	.2210		.3790		.2410	.3520	.3790	.3790	.3790	.3790
90.140		1.1970	.6810	.2180	.1550	.2260				.1560					
120.140			.6970	.2420	.2110	.2630									
142.140			.5970	.2130	.2230	.2990		.7980							
157.140							.9380								
162.140								.8030							
165.140															
169.140								.7250							
172.140							.8870								
180.140	1.4480	1.1090	.4410	.1940	.1930	.2790		.9390							
X/LB	.5973	.6826	.7380	.7869	.8283	.8848	.9262	.9639	1.1415	1.1592					

PHI

.140	-.1080														
40.140	.1790		.2110	.1290	.1720	-.1470		-.1030							
70.140	-.1090	-.1490	-.1090	-.1010	.1620	-.1240	-.1160								
90.140	-.1170	-.1090	.1420	.1710	.1090	.1130	.1680								
105.140			.0920	.1260	.0780	.1120	-.1400								
110.140								.1650							
120.140	-.1690	-.1080	.3180	.2580	.1630	.1190	.1180								
135.140			.2530	.2790	-.1170	-.1610	-.1040								
150.140	-.1390	-.1410	.1470	.1690	-.1140	-.1430	.1220								
165.140	-.1030		.1610	.1420	.1200	.1160	.1030								
180.140	-.1930	-.1070	-.1250												

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.180

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1400	.1675	.1700	.0339	.0602	.1355	.1516	.1561	.1732	.1950	.2259	.2711	.3224	.3953	.5124
PHI															
.140	1.4590	.9240	.4830	.1780	.0580	.1210		.1380		.1580	.1680	.1680	.1680	.1680	.1680
20.140			.4810	.1440	.1090	.1240		.1780		.1740	.1680	.1680	.1680	.1680	.1680
40.140			.5780	.1130	.1090	.1690		.2210		.1680	.1680	.1680	.1680	.1680	.1680
55.140			.6020	.1490	.1180	.2120		.2790		.2030	.2920	.3110	.3110	.3110	.3110
70.140			.6190	.1490	.1190	.1770		.2510		.2710	.3080	.3080	.3080	.3080	.3080
90.140		1.1390	.6170	.1630	.1170	.1760		.2190		.2880	.3080	.3080	.3080	.3080	.3080
120.140			.6140	.2190	.1690	.2140		.3130		.1360	.3080	.3080	.3080	.3080	.3080

DATE 17 SEP 75

TABULATED PRESSURE DATA - 1A9C  
AMES 07-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNB19)

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.180

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP					
X/LB	PHI						
142.000	.0640	.1990	.2090	.2690	.9040	.7510	.0670
150.000							
157.000							
162.000							
165.000							
169.000					.8030		
172.000	1.4990	1.0510	.4400	.1940	.1990	.2690	
180.000	.9073	.5626	.7080	.7069	.8283	.8848	.9262
X/LB					.9639	1.0015	1.0392

MACH ( 1 ) = 2.499 BETAT ( 4 ) = 0.680

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP					
X/LB	PHI						
142.000	.0640	.1990	.2090	.2690	.9040	.7510	.0670
150.000							
157.000							
162.000							
165.000							
169.000					.8030		
172.000	1.4990	1.0510	.4400	.1940	.1990	.2690	
180.000	.9073	.5626	.7080	.7069	.8283	.8848	.9262
X/LB					.9639	1.0015	1.0392

MACH ( 1 ) = 2.499 BETAT ( 4 ) = 0.680

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP					
X/LB	PHI						
142.000	.0640	.1990	.2090	.2690	.9040	.7510	.0670
150.000							
157.000							
162.000							
165.000							
169.000					.8030		
172.000	1.4990	1.0510	.4400	.1940	.1990	.2690	
180.000	.9073	.5626	.7080	.7069	.8283	.8848	.9262
X/LB					.9639	1.0015	1.0392

DATE 17 SEP 73 TABULATED PRESSURE DATA - IASC  
 AMES 87-707 1A9 O2A + S3 + 79 ORBITER FUSELAGE (RBNS19)

MACH ( 1 ) = 2.499 BETAT ( 4 ) = .168

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	.0339	.0612	.1355	.1906	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5124
181.144	1.4730	1.1680	.4490	.1990	.2640	.9610							
X/LB	.5875	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392			
PHI	-.1090												
40.144	-.1490	.0410	-.1410	-.1280	-.1030								
70.144	-.0730	-.0780	-.0710	-.1270	-.1590	-.0570							
90.144	-.1540	-.1630	-.1130	-.1140	-.1030	-.1410							
110.144		.170	.1460	-.1110	-.1070	-.1490							
120.144	-.1060	-.1410	.1480	.1180	-.1410	-.1330	-.1490						
130.144		.3760	.2910	-.1410	-.1370	.1460							
150.144	-.1040	-.1280	.1180	.2340	-.1580	.1260	.1440						
165.144	-.1220	.1100	.2180	.1490	.1110	.1630							
180.144	-.1010	-.1250	-.1210										

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.344

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	.0339	.0612	.1355	.1906	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5124
181.144	1.4960	.6930	.4240	.1430	.1470	.1370	.1320						
X/LB	.0000	.0775	.1488	.1339	.1612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3214
PHI													
20.144		.3990	.1440	.0380	.1530								
40.144		.4090	.1490	.1010	.1610								
55.144		.3890	.1420	-.1410	.1490								
70.144		.3990	.1490	-.1410	.1490								
90.144	.6810	.3560	.1410	-.1270	.1490								
120.144		.3910	.1720	.1420	.1610								
142.144		.4320	.1270	.1290	.1870	.7810							
150.144													
157.144													
162.144													
169.144													
172.144													
180.144	1.4960	1.1550	.4340	.1930	.1910	.2590							
X/LB	.5875	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.1415	1.1392			
PHI													
.144	-.1070												
1.144	-.1370	-.1320	-.1030	-.1520									

X/LB .5875 .6626 .7380 .7869 .8283 .8848 .9262 .9639 1.1415 1.1392

PHI -.1060 -.1060



AMES 87-707 IAS OEA + S3 + T9 ORBITER FUSELAGE (RBNB19)

MACH ( 1 ) = 2.499 BETAT ( 6 ) = 6.43)

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5073 .6626 .7380 .7869 .8283 .8848 .9282 .9639 1.0015 1.0392

PHI

105.1440 -.0780 -.1260 .2220 .0945 .0145 -.0380  
 180.1440 -.1960 -.0800 -.1220

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.550

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .0500 .1575 .0188 .0339 .0612 .1355 .1516 .1581 .1732 .1958 .2259 .2711 .3210 .3953 .5120

PHI

.1440 1.4230 .8670 .3980 .0110 .0320 .2820 .1120  
 20.1440 .3720 .0030 .0190 .2190 .0720  
 40.1440 .3530 -.0130 -.1680 -.1210 .0290  
 55.1440 .3210 -.0390 -.0190 .0180  
 70.1440 .2710 -.1210 -.1440 -.1220  
 90.1440 .7660 .2580 -.1490 -.1490  
 120.1440 .3080 .1230 .1410 .1160  
 142.1440 .3710 .1140 .1010 .1220  
 150.1440 .6620  
 165.1440 .6410  
 169.1440 .7190  
 172.1440 .9140  
 180.1440 1.4230 1.0430 .4290 .1830 .1920 .2620 .7810

X/LB .5073 .6626 .7380 .7869 .8283 .8848 .9282 .9639 1.0015 1.0392

PHI

.1440 -.1270  
 40.1440 -.0790  
 70.1440 -.0530  
 90.1440 -.1490  
 105.1440  
 120.1440  
 135.1440  
 150.1440  
 165.1440  
 180.1440

X/LB .5073 .6626 .7380 .7869 .8283 .8848 .9282 .9639 1.0015 1.0392

PHI

.1440 -.1270  
 40.1440 -.0790  
 70.1440 -.0530  
 90.1440 -.1490  
 105.1440  
 120.1440  
 135.1440  
 150.1440  
 165.1440  
 180.1440

AMES 87-707 1A9 O2A + S3 + T9 ORBITER FUSELAGE

(R8MB19)

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -6.380

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0424	.0475	.0188	.0339	.0612	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5124
PHI	1.3070	.8390	.3750	.0390	.0310	.0370		.1870			.0770	.0450	.0650	.0440	-.0480
20.000	.4800	.0610	.0360	.0770			.2560				.0950		.0290	.0270	.0130
40.000	.6790	.1050	.2070				.2260				.1650	.1120			
55.000	.6930	.1450	.2230				.4110				.2990				
70.000	.7450	.2380	.2210				.2420				.3850	.1730	.0770	.0610	.0470
90.000	.7680	.2680	.2070				.2440				.3530	.1630	.0820	.0310	.0280
120.000	.7080	.2880	.2740				.3860		.1610		.1830	.0590	.0560	.0220	.0480
142.000			.2930				.8290				.0370	.0190	.0110	.0240	.0480
150.000			.2070				.9530								
157.000			.1880				.8720				.0470	.0110	.0140	.0380	.0240
162.000			.2470				.7810								
165.000			.8980				.9860								
169.000															
172.000	1.3070	1.0720	.4530	.2070	.1880	.2470									
180.000	.5873	.6826	.7380	.7869	.8283	.8848	.9282	.9639	1.0115	1.0392					

PHI

.000	-.0430															
40.000	.0870	.2250	.1880	.0620	.0160											
70.000	-.0480	-.0270	.0120	.0160	.0130											
90.000	.0070	-.0110	.0680	.0370	.0380	.0570										
105.000		.0860	.0980	.0980	.0430	.0480										
110.000						.0840										
120.000	-.0440	-.0110	.3430	.2440	.0570	.0360	.0640									
135.000			.2540	.2820	-.0560	-.0610	-.0480									
150.000	-.0460	-.0180	.0380	.0720	-.0120	-.0790	.0090									
165.000	-.0450		.0460	.1170	.0150	.0870	.0470									
180.000	-.0480	-.0980	-.0770													

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.260

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0424	.0475	.0188	.0339	.0612	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.5124
PHI	1.5490	.8400	.4090	.0420	.0170	.0240		.1100			.0820	.0860	.0520	.0480	-.0480
20.000	.4440	.0660	.0210	.0210			.1480				.1020		.0330	.0490	.0480
40.000	.5290	.0660	.0730	.1240			.0990				.1490	.0800			
55.000	.5830	.0880	.1180	.1370			.2460				.2460				
70.000	.6180	.1430	.1120	.1260			.2460				.2460	.1370	.0470	.0270	.0480
90.000	.6410	.1830	.1120	.1340			.1240				.1310	.0990	.0560	.0210	-.0010
120.000	.6230	.2240	.1780	.1960			.2710				.1180	-.0440	-.0130	.0170	-.0110







AMES 87-707 IAS OZA + S3 + T9 ORBITER FUSELAGE

(RBNB19)

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.380

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.3073	.6028	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
70.1440	-.0390	-.0720	-.0690	-.0590	-.0590	-.0690	-.0690	-.0570		
90.1440	-.0430	-.0580	-.0290	-.0440	-.0550	-.0550	-.0550	-.0520		
105.1440			.0280	-.0270	-.0430	-.0550	-.0550	-.0590		
115.1440								.0430		
125.1440	-.0480	-.0280	.0370	.0420	-.0790	-.0810	-.0810	-.0810	-.0490	
135.1440		.0370	.0370	.2910	-.0810	-.0440	-.0290			
150.1440	-.0480	-.0280	.0460	.2670	-.0230	.0430	.0430			
165.1440	-.0490		-.0430	.2480	.0110	.0440	.0440	.0340		
180.1440	-.0720	-.0680	-.0480							

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 8.710

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0410	.0470	.0480	.0339	.0812	.0355	.0346	.0361	.0352	.0358	.0320	.0393	.0320
PHI													
20.1440	1.0990	.8360	.3370	.0180	.0280	.0720			.0810		.0440	.0440	-.0180
40.1440			.3180	.0180	.0110	.0280			.0370		-.0550	-.0780	-.0910
60.1440			.2920	.0470	-.0310	-.0410			-.0470		.0230		
70.1440			.2720	.0340	-.0440	-.0180			.0570	-.0490	-.0570	-.0410	-.0520
90.1440	.7870	.2770	-.0140	-.0470	-.0190				-.0330	-.0770	-.0780	-.0820	-.0490
120.1440			.3340	.0250	.0190	.0170			.0190	-.0130	-.0120	-.0190	-.0490
140.1440			.3080	.0130	.0170	.0180			-.0290	-.0110	-.0190	-.0170	-.0680
157.1440							.6480						
180.1440									.7120				
189.1440													
172.1440							.7230						
180.1440	1.0990	1.0990	.4480	.0980	.0840	.2170							

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6628	.7360	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
40.1440	-.0440									
60.1440	-.0690	-.0630	-.0370	-.0640	-.0240	-.0270			-.0970	
70.1440	-.0590	-.0680	-.0640	-.0580	-.0740	-.0990	-.0690		-.0630	
90.1440	-.0480	-.0580	-.0490	-.0340	-.0660	-.0990	-.0680			
105.1440			-.0670	-.0420	-.0660	-.0990	-.0660			
115.1440								.0430		
125.1440	-.0430	-.0280	.0460	.0330	-.0220	-.0240	-.0620	-.0720		
135.1440		.0310	.0310	.0250	-.0170	-.0990	-.0490			
150.1440	-.0120	-.0130	-.0690	-.0190	-.0160	-.0990	-.0780			















AMES 07-7J7 IAS O2A + S3 + T9 ORBITER FUSELAGE

(RBNSZC) ( 15 MAY 73 )

## REFERENCE DATA

SREF = 2.4215 SQ.FT. XMRP = 28.5375 INCHES  
 LREF = 39.8495 INCHES YMRP = 5.5225 INCHES  
 BREF = 39.8495 INCHES ZMRP = 5.5225 INCHES  
 SCALE = .0395 SCALE

MACH ( 1 ) = 2.499 BETAT ( 1 ) = -8.410

## PARAMETRIC DATA

ALPHAT = 4.555 ORBINC = .555  
 RUDSER = -15.555 ELEVON = .555  
 RUDFLR = .555

## SECTION ( 1 ) ORBITER FUSELAGE DEFENDENT VARIABLE CP

X/LB	PHI	.0000	.0175	.0350	.0525	.0700	.0875	.1050	.1225	.1400	.1575	.1750	.1925	.2100	.2275	.2450	.2625	.2800	.2975	.3150	.3325	.3500	.3675	.3850	.4025	.4200	.4375	.4550	.4725	.4900	.5075	.5250	.5425	.5600	.5775	.5950	.6125	.6300	.6475	.6650	.6825	.7000	.7175	.7350	.7525	.7700	.7875	.8050	.8225	.8400	.8575	.8750	.8925	.9100	.9275	.9450	.9625	.9800	.9975																																																																																									
X/LB	PHI	.0000	.0175	.0350	.0525	.0700	.0875	.1050	.1225	.1400	.1575	.1750	.1925	.2100	.2275	.2450	.2625	.2800	.2975	.3150	.3325	.3500	.3675	.3850	.4025	.4200	.4375	.4550	.4725	.4900	.5075	.5250	.5425	.5600	.5775	.5950	.6125	.6300	.6475	.6650	.6825	.7000	.7175	.7350	.7525	.7700	.7875	.8050	.8225	.8400	.8575	.8750	.8925	.9100	.9275	.9450	.9625	.9800	.9975																																																																																									
		1.2992	.9285	.4615	.0365	.0725	.1295	.1925	.2625	.3325	.4025	.4725	.5425	.6125	.6825	.7525	.8225	.8925	.9625	1.0325	1.1025	1.1725	1.2425	1.3125	1.3825	1.4525	1.5225	1.5925	1.6625	1.7325	1.8025	1.8725	1.9425	2.0125	2.0825	2.1525	2.2225	2.2925	2.3625	2.4325	2.5025	2.5725	2.6425	2.7125	2.7825	2.8525	2.9225	2.9925	3.0625	3.1325	3.2025	3.2725	3.3425	3.4125	3.4825	3.5525	3.6225	3.6925	3.7625	3.8325	3.9025	3.9725	4.0425	4.1125	4.1825	4.2525	4.3225	4.3925	4.4625	4.5325	4.6025	4.6725	4.7425	4.8125	4.8825	4.9525	5.0225	5.0925	5.1625	5.2325	5.3025	5.3725	5.4425	5.5125	5.5825	5.6525	5.7225	5.7925	5.8625	5.9325	6.0025	6.0725	6.1425	6.2125	6.2825	6.3525	6.4225	6.4925	6.5625	6.6325	6.7025	6.7725	6.8425	6.9125	6.9825	7.0525	7.1225	7.1925	7.2625	7.3325	7.4025	7.4725	7.5425	7.6125	7.6825	7.7525	7.8225	7.8925	7.9625	8.0325	8.1025	8.1725	8.2425	8.3125	8.3825	8.4525	8.5225	8.5925	8.6625	8.7325	8.8025	8.8725	8.9425	9.0125	9.0825	9.1525	9.2225	9.2925	9.3625	9.4325	9.5025	9.5725	9.6425	9.7125	9.7825	9.8525	9.9225	10.0000

## AMES 87-707 IA9 O2A + S3 + T9 ORBITER FUSELAGE

(RBNB2U)

MACH ( 1 ) = 2.499 BETAT ( 2 ) = -6.29U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1908	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.512U
PHI															
.144U	1.319U	.923U	.468U	.065U	.122U	.139U	.133U				.055U	.067U	.029U	-.031U	-.058U
2U.144U		.523U	.112U	.124U	.101U		.129U				.043U				
4U.144U		.633U	.175U	.167U	.173U		.116U				.052U	.048U	-.017U	-.023U	.058U
55.144U		.652U	.206U	.179U	.336U		.252U				.163U				
7U.144U		.643U	.187U	.145U	.384U		.286U				.218U	.065U	-.011U	-.028U	-.022U
9U.144U	1.068U	.617U	.178U	.133U	.205U		.331U				.284U	.053U	-.019U	-.035U	-.041U
12U.144U		.552U	.181U	.152U	.217U		.354U			.087U	.193U	.021U	-.031U	-.059U	-.061U
142.144U															
15U.144U		.478U	.144U	.148U	.217U		.671U				-.021U	-.021U	-.036U	-.039U	-.064U
157.144U						.764U									
162.144U							.673U								
165.144U							.598U								
169.144U															
172.144U						.686U									
18U.144U	1.319U	.695U	.337U	.124U	.121U	.192U	.779U								
X/LB	.5875	.6626	.738U	.7869	.8283	.8848	.9262	.9639	1.0415	1.0392					

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.17U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3214	.3953	.512U
PHI															
.144U	1.332U	.907U	.436U	.043U	.124U	-.018U	.184U				.093U	.078U	.054U	-.018U	-.077U
2U.144U		.485U	.071U	.133U	-.008U		.157U				.062U				
4U.144U		.582U	.129U	.154U	.131U		.139U				.061U	.012U	.000U	-.023U	.013U
55.144U		.594U	.129U	.133U	.274U		.218U				.146U				
7U.144U		.579U	.129U	.099U	.221U		.248U				.192U	.045U	-.024U	-.041U	-.048U
9U.144U	1.048U	.558U	.133U	.087U	.157U		.247U				.239U	.042U	-.028U	-.054U	-.063U
12U.144U		.512U	.151U	.121U	.173U		.0				.161U	.043U	-.043U	-.062U	-.074U
142.144U															
15U.144U															
157.144U															
162.144U															
165.144U															
169.144U															
172.144U															
18U.144U	.5875	.6626	.738U	.7869	.8283	.8848	.9262	.9639	1.0415	1.0392					
X/LB	.5875	.6626	.738U	.7869	.8283	.8848	.9262	.9639	1.0415	1.0392					



INSULATED PRESSURE DATA - 1A9C

AMES 87-717 1A9 02A + S3 + T9 OPBITER FUSELAGE

(PBN82J)

DATE 17 SEP 73

BETA ( 3 ) = -4.17J

SECTION ( 1 ) OPBITER FUSELAGE

DEPENDENT VARIABLE CP

W/LB	1.0000	1.0075	1.0100	1.0339	1.0612	1.1355	1.1516	1.1732	1.1958	1.2299	1.2711	1.321J	1.3953	1.512J
PHI														
142.100J														
151.100J														
157.100J														
152.100J														
155.100J														
159.100J														
172.100J														
181.100J														
W/LB	1.332J	1.341J	1.23J	1.12J	1.17J									
	.587J	.738J	.789J	.828J	.864J	.926J	.963J	1.1115	1.1392					

BETA ( 4 ) = .16J

SECTION ( 1 ) OPBITER FUSELAGE

W/LB	1.0000	1.0075	1.0100	1.0339	1.0612	1.1355	1.1516	1.1732	1.1958	1.2299	1.2711	1.321J	1.3953	1.512J
PHI														
142.100J														
151.100J														
157.100J														
152.100J														
155.100J														
159.100J														
172.100J														
181.100J														
W/LB	1.332J	1.341J	1.23J	1.12J	1.17J									
	.587J	.738J	.789J	.828J	.864J	.926J	.963J	1.1115	1.1392					

BETA ( 4 ) = .16J

SECTION ( 1 ) OPBITER FUSELAGE

W/LB	1.0000	1.0075	1.0100	1.0339	1.0612	1.1355	1.1516	1.1732	1.1958	1.2299	1.2711	1.321J	1.3953	1.512J
PHI														
142.100J														
151.100J														
157.100J														
152.100J														
155.100J														
159.100J														
172.100J														
181.100J														
W/LB	1.332J	1.341J	1.23J	1.12J	1.17J									
	.587J	.738J	.789J	.828J	.864J	.926J	.963J	1.1115	1.1392					

AVES 07-757 1AS 02A + 53 + TO ORBITER FUSELAGE

(REMARKS)

WAO ( 1 ) = 2.499      BETAT ( 4 ) = .580

SECTION 1) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	1.110	1.075	0.188	0.339	0.602	0.335	0.156	0.081	0.1732	0.1938	0.2259	0.2711	0.3260	0.3953	0.5120
PHI															
180.100	1.3340	0.9270	0.3470	0.1290	0.1280	0.1800		0.7880							
X/LB	0.875	0.6828	0.7380	0.7809	0.9283	0.8848	0.9282	0.9639	1.0445	1.0392					
PHI															
180.100	-0.9990	-0.1000	0.4200	0.2300	-0.0180	-0.6000		-0.8870							
200.100	0.0200	-0.0820	-0.0930	-0.0890	-0.0770	-0.0790									
70.100	-0.0820	-0.0720	-0.0190	-0.0390	-0.0600	-0.0600									
90.100	-0.0790	-0.0720	0.0000	0.0300	-0.0390	-0.0600									
110.100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000									
115.100	-0.0800	-0.0990	0.0000	0.0000	-0.0300	-0.0390									
120.100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000									
135.100	-0.0820	-0.0940	0.0000	0.0000	-0.0370	-0.0390									
150.100	-0.0900	-0.0940	0.0000	0.0000	-0.0370	-0.0390									
165.100	-0.0940	-0.0940	0.0000	0.0000	-0.0390	-0.0390									
180.100	-0.0970	-0.0990	0.0000	0.0000	-0.0400	-0.0400									

WAO ( 1 ) = 2.499      BETAT ( 5 ) = 4.310

SECTION 1) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	1.110	1.075	0.188	0.339	0.602	0.335	0.156	0.081	0.1732	0.1938	0.2259	0.2711	0.3260	0.3953	0.5120
PHI															
180.100	1.3310	0.9130	0.4490	0.2600	0.2190	0.2100		0.8890							
X/LB	0.875	0.6828	0.7380	0.7809	0.9283	0.8848	0.9282	0.9639	1.0445	1.0392					
PHI															
200.100	0.4210	0.4810	0.4810	0.4810	0.4810	0.4810		0.4810							
70.100	0.4290	0.4890	0.4890	0.4890	0.4890	0.4890		0.4890							
90.100	0.4120	0.4800	0.4800	0.4800	0.4800	0.4800		0.4800							
110.100	0.3390	0.4830	0.4830	0.4830	0.4830	0.4830		0.4830							
115.100	0.3260	0.4800	0.4800	0.4800	0.4800	0.4800		0.4800							
120.100	0.3390	0.4800	0.4800	0.4800	0.4800	0.4800		0.4800							
135.100	0.3390	0.4800	0.4800	0.4800	0.4800	0.4800		0.4800							
150.100	0.3390	0.4800	0.4800	0.4800	0.4800	0.4800		0.4800							
165.100	0.3390	0.4800	0.4800	0.4800	0.4800	0.4800		0.4800							
180.100	0.3390	0.4800	0.4800	0.4800	0.4800	0.4800		0.4800							

WAO ( 1 ) = 2.499      BETAT ( 5 ) = 4.310

SECTION 1) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	1.110	1.075	0.188	0.339	0.602	0.335	0.156	0.081	0.1732	0.1938	0.2259	0.2711	0.3260	0.3953	0.5120
PHI															
180.100	-0.0800	-0.0800	0.0000	0.0000	-0.0300	-0.0300		-0.0300							
X/LB	0.875	0.6828	0.7380	0.7809	0.9283	0.8848	0.9282	0.9639	1.0445	1.0392					
PHI															
200.100	-0.0800	-0.0800	0.0000	0.0000	-0.0300	-0.0300		-0.0300							
70.100	-0.0800	-0.0800	0.0000	0.0000	-0.0300	-0.0300		-0.0300							

DATE 17 SEP 73 TABULATED PRESSURE DATA - IASC (RBN62J)  
 AVES 87-757 IAS OEA + S3 + T9 ORBITER FUSELAGE

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.315

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6826	.7389	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PH1										
75.144	-.089J	-.092J	-.099J	-.099J	-.099J	-.099J	-.092J	-.089J		
95.144	-.071J	-.078J	-.080J	-.075J	-.078J	-.078J	-.077J	-.077J		
115.144			-.067J	-.067J	-.055J	-.078J	-.084J	-.084J		
135.144			-.067J	-.068J	-.054J	-.067J	-.061J	-.061J		
155.144			.034J	.234J	-.072J	-.057J	-.042J			
175.144			-.058J	-.062J	-.051J	-.052J	-.046J			
195.144			-.059J	-.068J	-.069J	-.059J	-.041J			
215.144			-.079J	-.079J	-.059J					

MACH ( 1 ) = 2.499 BETAT ( 6 ) = 6.42J

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6826	.7389	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PH1										
75.144	1.312J	.919J	.453J	-.08J	-.09J	.179J	.126J	.126J	.126J	.126J
95.144			.417J	.067J	.077J	.077J	.197J	.197J	.197J	.197J
115.144			.392J	.032J	-.059J	-.059J	.12J	.12J	.12J	.12J
135.144			.359J	.032J	-.068J	-.051J	-.061J	-.061J	-.061J	-.061J
155.144			.303J	-.048J	-.039J	.044J	.044J	.044J	.044J	.044J
175.144		.758J	.271J	-.038J	-.035J	.044J	.044J	.044J	.044J	.044J
195.144			.279J	.048J	-.048J	.044J	.044J	.044J	.044J	.044J
215.144			.309J	.033J	.052J	.097J	.367J	.367J	.367J	.367J
157.144							.588J	.588J	.588J	.588J
165.144										
169.144										
172.144										
185.144	1.312J	.919J	.453J	.113J	.113J	.157J	.643J	.643J	.643J	.643J

MACH ( 1 ) = 2.499 BETAT ( 6 ) = 6.42J

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5873	.6826	.7389	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392
PH1										
75.144	-.034J	.049J	.049J	-.034J	-.034J	-.076J	-.113J	-.113J	-.113J	-.113J
95.144	-.069J	-.069J	-.069J	-.069J	-.069J	-.078J	-.114J	-.114J	-.114J	-.114J
115.144	-.072J	-.065J	-.055J	-.063J	-.066J	-.063J	-.068J	-.068J	-.068J	-.068J
135.144			-.048J	-.048J	-.066J	-.069J	-.088J	-.088J	-.088J	-.088J
155.144			-.078J	-.072J	.047J	-.047J	-.099J	-.099J	-.099J	-.099J
175.144			.399J	.266J	-.044J	-.044J	-.071J	-.071J	-.071J	-.071J
195.144			-.069J	-.071J	.063J	.099J	-.041J	-.041J	-.041J	-.041J

AVES 87-757 IAS OBA + S3 + T9 ORBITER FUSELAGE (ORDN02U)

MACH ( 1 ) = 2.499

BETA1 ( 6 ) = 6.43U

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.738U	.7888	.8283	.8848	.9282	.9639	1.1515	1.1592
PHI										
185.11U		-1.575U		-1.5485	.128U	.112U	.113U	-1.389U		
189.11U		-1.151U	-1.151U	-1.172U						

MACH ( 1 ) = 2.499

BETA1 ( 7 ) = 8.58U

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	.111U	.1575	.1188	.1339	.1812	.1355	.1516	.1581	.1732	.1958	.2299	.2711	.321U	.3953	.512U
PHI															
111U	1.228U	.918U	.491U	.133U	.168U	.192U			.16U	.18U	.22U	-.153U	-.136U	-.144U	
2U.11U		.411U	.169U	.169U	.149U				.16U	.18U	.19U	-.11U	-.13U	-.116U	
4U.11U		.371U	.168U	.113U	-.163U				.16U	.18U	.19U	-.11U	-.13U	-.116U	
55.11U		.327U	-.111U	-.139U	-.133U				-.151U	-.15U	-.16U	-.18U	-.19U	-.19U	
7U.11U		.281U	-.111U	-.158U	-.122U				-.151U	-.15U	-.16U	-.18U	-.19U	-.19U	
9U.11U		.088U	.223U	-.161U	-.157U	-.129U			-.151U	-.15U	-.16U	-.18U	-.19U	-.19U	
12U.11U		.238U	-.114U	-.133U					-.151U	-.15U	-.16U	-.18U	-.19U	-.19U	
142.11U		.281U	.138U	.138U	.131U			.488U	.317U						
15U.11U									.517U						
157.11U									.569U						
182.11U															
185.11U															
198.11U															
172.11U		1.228U	.896U	.321U	.111U	.109U	.556U		.739U						
18U.11U		.5873	.6828	.738U	.7888	.8283	.8848	.9282	.9639	1.1515	1.1592				

PHI

111U		-1.167U													
4U.11U		-.168U	-.157U	-.152U	-.152U	-.136U	-.139U		-.116U						
7U.11U		-.167U	-.151U	-.146U	-.146U	-.137U	-.137U	-.158U							
9U.11U		-.172U	-.167U	-.162U	-.162U	-.148U	-.148U	-.168U							
115.11U			-.169U	-.168U	-.168U	-.151U	-.151U								
11U.11U		-.169U	-.178U	.162U	.169U	-.136U	-.131U	-.111U							
12U.11U				.396U	.376U	-.131U	-.129U	-.149U							
135.11U				-.119U	-.138U	-.128U	-.112U	-.148U							
15U.11U		-.123U	-.118U	-.108U	-.117U	-.128U	-.112U	-.148U							
18U.11U		-.129U	-.122U	-.122U	-.127U	-.127U	-.127U	-.161U							

## AVES 07-707 IA9 OZA + S3 + T9 ORBITER FUSELAGE (RBMS2U)

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.57U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.144U	.147U	.15100	.15339	.156U2	.15555	.15506	.15081	.1732	.1950	.2259	.2711	.32U	.3953	.512U
PHI															
.14U	1.310U	.775U	.361U	.121U	.146U	.150U			.137U		.134U	.12U	.120U	-.110U	-.123U
2U.144U		.420U	.157U	.146U	.143U				.172U		.167U	.144U	-.145U	-.144U	.127U
4U.144U		.574U	.190U	.194U	.364U				.245U		.243U	.137U	.146U	.120U	.144U
5U.144U		.649U	.144U	.163U	.334U				.347U		.209U	.137U	.146U	.120U	.144U
7U.144U		.688U	.247U	.164U	.246U				.411U		.324U	.131U	.142U	.111U	-.145U
9U.144U		1.101U	.691U	.233U	.159U	.240U			.246U		.172U	.161U	.123U	-.121U	-.139U
12U.144U		.599U	.224U	.170U	.223U		.123U		.317U		.169U	-.111U	-.144U	-.140U	-.123U
14U.144U		.499U	.170U	.155U	.213U			.750U	.673U						
15U.144U									.746U						
16U.144U									.624U						
165.144U															
169.144U															
172.144U															
18U.144U	1.310U	.809U	.342U	.132U	.115U	.134U	.660U		.770U		-.124U	-.111U	.161U	.110U	-.124U
X/LB	.507U	.602U	.730U	.786U	.826U	.804U	.926U	.963U	1.141U	1.159U	-.171U	-.179U	-.165U	-.199U	-.123U

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.25U

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.14U	.144U	.147U	.15100	.15339	.156U2	.15555	.15506	.15081	.1732	.1950	.2259	.2711	.32U	.3953	.512U
PHI																
.14U	1.360U	.844U	.395U	.139U	.151U	-.123U				.141U		.119U	.150U	.164U	.121U	-.133U
2U.144U		.449U	.164U	.144U	-.124U				.237U		.169U	.160U	.152U	.144U	-.113U	-.111U
4U.144U		.533U	.160U	.177U	.174U				.173U		.170U	.144U	.144U	-.113U	-.111U	.127U
5U.144U		.557U	.165U	.165U	.129U				.259U		.170U	.144U	.144U	-.113U	-.111U	.127U
7U.144U		.572U	.117U	.194U	.123U				.135U		.235U	.140U	.140U	-.113U	-.111U	-.124U
9U.144U		1.071U	.574U	.151U	.160U	.123U			.116U		.240U	.140U	.140U	-.113U	-.111U	-.136U
12U.144U		.524U	.167U	.167U	.147U				.162U		.162U	.140U	-.113U	-.111U	-.136U	-.151U
12U.144U									.240U		.162U	.140U	-.113U	-.111U	-.136U	-.151U

AXES 87-757 IAS OEA \* S3 \* T9 ORBITER FUSELAGE (REMOVED)

MACH ( 2 ) = 2.999

BETAT ( 2 ) = -4.250

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1444	.1575	.1688	.1839	.1962	.2155	.2516	.2581	.2752	.2950	.2711	.3250	.3953	.5120
PHI										.1620				
142.140														
150.140														
157.140														
162.140														
165.140														
169.140														
172.140														
181.140														
187.140														
X/LB	.5073	.6628	.7580	.7609	.8283	.8648	.9262	.9609	1.1015	1.1592				

MACH ( 2 ) = 2.999

BETAT ( 3 ) = 0.680

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1444	.1575	.1688	.1839	.1962	.2155	.2516	.2581	.2752	.2950	.2711	.3250	.3953	.5120
PHI														
142.140														
150.140														
157.140														
162.140														
165.140														
169.140														
172.140														
181.140														
187.140														
X/LB	.5073	.6628	.7580	.7609	.8283	.8648	.9262	.9609	1.1015	1.1592				

MACH ( 2 ) = 2.999

BETAT ( 3 ) = 0.680

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.1444	.1575	.1688	.1839	.1962	.2155	.2516	.2581	.2752	.2950	.2711	.3250	.3953	.5120
PHI														
142.140														
150.140														
157.140														
162.140														
165.140														
169.140														
172.140														
181.140														
187.140														
X/LB	.5073	.6628	.7580	.7609	.8283	.8648	.9262	.9609	1.1015	1.1592				











AMES 87-7J7 IAS OEA + S3 + T9 ORBITER FUSELAGE

(RB82U)

MACH ( 3 ) = 3.5/2

BETAT ( 3 ) = -4.33U

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP													
X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1956	.1581	.1732	.1956	.2259	.2711	.3210	.3953	.5120
PHI							.1681U		.576U		.1611U	-.1022U	-.1038U	-.0394U	-.0340U
142.00U		.474U	.178U	.139U	.171U			.721U							
150.00U															
157.00U															
162.00U															
165.00U															
169.00U															
172.00U	1.400U	.938U	.368U	.148U	.127U	.146U	.719U								
180.00U															
X/LB	.5873	.6626	.738U	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP													
X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1956	.1581	.1732	.1956	.2259	.2711	.3210	.3953	.5120
PHI															
142.00U															
150.00U															
157.00U															
162.00U															
165.00U															
169.00U															
172.00U															

MACH ( 3 ) = 3.5/2

BETAT ( 4 ) = .06U

SECTION ( 1 ) ORBITER FUSELAGE		DEPENDENT VARIABLE CP													
X/LB	.0000	.0075	.0188	.0339	.0612	.1355	.1956	.1581	.1732	.1956	.2259	.2711	.3210	.3953	.5120
PHI															
142.00U															
150.00U															
157.00U															
162.00U															
165.00U															
169.00U															
172.00U															

SECTION ( 1 ) ORBITER FUSELAGE

DEPENDENT VARIABLE CP

X/LB

PHI

142.00U

150.00U

157.00U

162.00U

165.00U

169.00U

172.00U











AMES 87-707 IAS ODA + S3 + T9 ORBITER FUSELAGE

(RBNB21)

MACH ( 1 ) = 2.499      BETAT ( 2 ) = -6.28J

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.1440	.1075	.0188	.0339	.0612	.1355	.1356	.1591	.1732	.1958	.2259	.2711	.3210	.3953	.512J
PHI															
.140	1.2840	.9680	.5130	.1980	.0770	.1168		.1300		.0570	.0980	.0190	-.0440	-.0580	
20.140		.5550	.1400	.0550	.0550		.0940	.0940		.0250	-.0170	-.0340	-.0220	.0650	
40.140		.6990	.2510	.1980	.1430		.0740	.0740		.1320	.0450	-.0240	-.0460	-.0340	
55.140		.6830	.2250	.1990	.3010		.2490	.2490		.2470	.0990	-.0390	-.0580	-.0990	
70.140		.6480	.2220	.1630	.3220		.2750	.2750		.1620	.0550	-.0540	-.0880	-.0830	
90.140	1.0490	.5880	.1710	.1280	.2470		.3670	.3670		-.0260	-.0380	-.0530	-.0630	-.0830	
120.140		.5400	.1530	.1280	.1940		.6110	.6110		-.0810	-.0210	-.0180	-.0580	-.0830	
142.140		.4260	.1150	.1130	.1810	.6890									
150.140															
162.140															
165.140															
169.140															
172.140						.6190									
180.140	1.2840	.8240	.2910	.0610	.0680	.1570		.6950		-.1270	-.1240	-.0140	-.1920	-.1320	
X/LB	.5873	.6826	.7380	.7869	.8283	.8848	.9282	.9639	1.0115	1.0392					

MACH ( 1 ) = 2.499

BETAT ( 3 ) = -4.170

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.1440	.1075	.0188	.0339	.0612	.1355	.1356	.1591	.1732	.1958	.2259	.2711	.3210	.3953	.512J
PHI															
.140	1.2840	.9680	.5130	.1980	.0770	.1168		.1300		.0570	.0980	.0190	-.0440	-.0580	
20.140		.5550	.1400	.0550	.0550		.0940	.0940		.0250	-.0170	-.0340	-.0220	.0650	
40.140		.6990	.2510	.1980	.1430		.0740	.0740		.1320	.0450	-.0240	-.0460	-.0340	
55.140		.6830	.2250	.1990	.3010		.2490	.2490		.2470	.0990	-.0390	-.0580	-.0990	
70.140		.6480	.2220	.1630	.3220		.2750	.2750		.1620	.0550	-.0540	-.0880	-.0830	
90.140	1.0490	.5880	.1710	.1280	.2470		.3670	.3670		-.0260	-.0380	-.0530	-.0630	-.0830	
120.140		.5400	.1530	.1280	.1940		.6110	.6110		-.0810	-.0210	-.0180	-.0580	-.0830	
142.140		.4260	.1150	.1130	.1810	.6890									
150.140															
162.140															
165.140															
169.140															
172.140						.6190									
180.140	1.2840	.8240	.2910	.0610	.0680	.1570		.6950		-.1270	-.1240	-.0140	-.1920	-.1320	
X/LB	.5873	.6826	.7380	.7869	.8283	.8848	.9282	.9639	1.0115	1.0392					

MACH ( 1 ) = 2.499

BETAT ( 3 ) = -4.170

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.1440	.1075	.0188	.0339	.0612	.1355	.1356	.1591	.1732	.1958	.2259	.2711	.3210	.3953	.512J
PHI															
.140	1.2840	.9680	.5130	.1980	.0770	.1168		.1300		.0570	.0980	.0190	-.0440	-.0580	
20.140		.5550	.1400	.0550	.0550		.0940	.0940		.0250	-.0170	-.0340	-.0220	.0650	
40.140		.6990	.2510	.1980	.1430		.0740	.0740		.1320	.0450	-.0240	-.0460	-.0340	
55.140		.6830	.2250	.1990	.3010		.2490	.2490		.2470	.0990	-.0390	-.0580	-.0990	
70.140		.6480	.2220	.1630	.3220		.2750	.2750		.1620	.0550	-.0540	-.0880	-.0830	
90.140	1.0490	.5880	.1710	.1280	.2470		.3670	.3670		-.0260	-.0380	-.0530	-.0630	-.0830	
120.140		.5400	.1530	.1280	.1940		.6110	.6110		-.0810	-.0210	-.0180	-.0580	-.0830	
142.140		.4260	.1150	.1130	.1810	.6890									
150.140															
162.140															
165.140															
169.140															
172.140						.6190									
180.140	1.2840	.8240	.2910	.0610	.0680	.1570		.6950		-.1270	-.1240	-.0140	-.1920	-.1320	
X/LB	.5873	.6826	.7380	.7869	.8283	.8848	.9282	.9639	1.0115	1.0392					



DATE 17 SEP 75 ABLATED PRESSURE DATA - 1A9C

(FDR021)

AMES 87-757 AS OSA + SS + T9 ORBITER FUSELAGE

WACH ( 1 ) = 2.099 BETA\* ( 4 ) = .540

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

NALB	.1110	.1100	.1339	.1012	.1355	.1516	.1901	.1732	.1938	.2259	.2711	.3210	.3953	.5120
PHI								.7200						
100.1110	1.3000	3.010	1.000	1.000	1.420									
NALB	.3073	.0000	.7300	.7000	.0000	.9202	.9009	1.1015	1.1092					
PHI														
110.1110	-.1170	.1180	.1330	-.1180	1.050	-.1010	-.1000							
120.1110	.1130	.1180	.1330	-.1180	1.050	-.1010	-.1000							
130.1110	-.1000	-.1100	-.1120	-.1100	-.1070	-.1070	-.1070							
140.1110	-.1030	-.1010	-.1040	-.1030	-.1030	-.1000	-.1000							
150.1110	-.1020	-.1000	-.1000	-.1020	-.1020	-.1020	-.1020							
160.1110	-.1070	-.1090	.1020	-.1020	-.1040	-.1040	-.1040							
170.1110	-.1070	-.1000	.1070	-.1070	-.1040	-.1040	-.1040							
180.1110	-.1070	-.1000	.1070	-.1070	-.1040	-.1040	-.1040							

WACH ( 1 ) = 2.099 BETA\* ( 5 ) = 4.311

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

NALB	.1110	.1100	.1339	.1012	.1355	.1516	.1901	.1732	.1938	.2259	.2711	.3210	.3953	.5120
PHI														
100.1110	1.3370	.9420	.4000	.1070	.1450	.1480		.1070						
110.1110	.0000	.1000	.1000	.1000	.1000	.1000		.2120						
120.1110	.4550	.1070	.1000	.1000	-.1010			.1230						
130.1110	.4200	.1070	.1030	-.1030	-.1030			.1100						
140.1110	.3000	.1030	-.1020	-.1020	-.1020			.1100						
150.1110	.0300	-.1010	-.1000	-.1000	-.1010			.1100						
160.1110	.2000	.1010	-.1010	-.1010	-.1010			.1070						
170.1110	.2000	.1000	.1000	.1000	.1000			.1070						
180.1110	.2000	.1000	.1000	.1000	.1000			.1070						













AMES 87-717 IAG OSA + S3 + T9 ORBITER FUSELAGE (FB1821)

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.414

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP X/LB .5873 .6826 .7389 .7969 .8283 .8848 .9262 .9839 1.0415 1.0992

Table with 10 columns (PHI, 70, 90, 110, 130, 150, 165, 180, 195, 210) and 10 rows of pressure data values.

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 6.731

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP X/LB .1000 .1475 .1958 .2439 .2922 .3355 .3846 .4470 .5181 .5988

Table with 10 columns (PHI, 20, 40, 60, 80, 100, 120, 140, 160, 180) and 10 rows of pressure data values.

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.414

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP X/LB .5873 .6826 .7389 .7969 .8283 .8848 .9262 .9839 1.0415 1.0992

Table with 10 columns (PHI, 40, 70, 90, 110, 130, 150, 170, 190, 210) and 10 rows of pressure data values.



AMES 87-737 IAS ORA + S3 + T9 ORBITER FUSELAGE

(P9N821)

MACH ( 3 ) = 3.942 BETAT ( 2 ) = -6.514

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1335	.1946	.1581	.1732	.1958	.2259	.2711	.3264	.3953	.5120
PHI															
1.00	1.2700	.8980	.4110	.0480	.0180	-.1820			.0920	.0550	.0240	.0160	.0130	.0130	-.0250
20.000		.4720	.0790	.0280	.0250				.1370	.0930	.0680	.0410	-.0240	.0140	
40.000			.5710	.0890	.0970				.2250	.1030	.0840	.0450	-.0240	.0140	
55.000			.5930	.1170	.1330				.3230	.1240	.1190	.0450	.0190	-.0250	
70.000			.6140	.1590	.1820	.1420			.4540	.1490	.1450	.0450	.0170	-.0160	
90.000			1.1570	.1870	.1180	.1380			.4490	.1650	.0860	.0450	-.0150	-.0440	
120.000				.5210	.1340	.1380			.4720						
142.000				.4350	.1420	.1280			.5520						
157.000							.6530								
182.000									.6070						
189.000									.5650						
172.000							.6380								
180.000									.7050						
X/LB	.5073	.5026	.7380	.7866	.8083	.8048	.9252	.9639	1.1615	1.0392					

MACH ( 3 ) = 3.942

BETAT ( 3 ) = -4.320

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0100	.0339	.0612	.1335	.1946	.1581	.1732	.1958	.2259	.2711	.3264	.3953	.5120
PHI															
1.00	1.3030	.9280	.4490	.0490	.0390	-.1820			.0530	.0230	.0080	.0010	.0010	.0010	-.0190
20.000		.4090	.0890	.0370	.0270				.0230	.0150	.0100	.0010	-.0010	-.0010	
40.000			.5020	.0820	.0740	.0640			.1730	.0930	.0840	.0410	-.0010	-.0010	
55.000			.5970	.1160	.1110	.0980			.2260	.1020	.0930	.0410	-.0010	-.0010	
70.000			.6010	.1440	.1390	.1140			.3140	.1140	.1090	.0310	-.0010	-.0010	
90.000			1.1020	.1520	.1520	.1090			.3340	.1140	.0730	.0280	-.0010	-.0010	
120.000				.4810	.1390	.1280			.4290						

DATE OF TEST

LABORATORY ADDRESS

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TEST REPORT FOR 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

00000001

TEST NO. 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030

TESTER'S NAME: J. J. JONES

DATE: 10/15/2015

TEST NO.	TESTER'S NAME	DATE	TEST RESULT	TESTER'S NAME	DATE	TEST RESULT	TESTER'S NAME	DATE	TEST RESULT
1010	J. J. JONES	10/15/2015	1010	J. J. JONES	10/15/2015	1010	J. J. JONES	10/15/2015	1010
1011	J. J. JONES	10/15/2015	1011	J. J. JONES	10/15/2015	1011	J. J. JONES	10/15/2015	1011
1012	J. J. JONES	10/15/2015	1012	J. J. JONES	10/15/2015	1012	J. J. JONES	10/15/2015	1012
1013	J. J. JONES	10/15/2015	1013	J. J. JONES	10/15/2015	1013	J. J. JONES	10/15/2015	1013
1014	J. J. JONES	10/15/2015	1014	J. J. JONES	10/15/2015	1014	J. J. JONES	10/15/2015	1014
1015	J. J. JONES	10/15/2015	1015	J. J. JONES	10/15/2015	1015	J. J. JONES	10/15/2015	1015
1016	J. J. JONES	10/15/2015	1016	J. J. JONES	10/15/2015	1016	J. J. JONES	10/15/2015	1016
1017	J. J. JONES	10/15/2015	1017	J. J. JONES	10/15/2015	1017	J. J. JONES	10/15/2015	1017
1018	J. J. JONES	10/15/2015	1018	J. J. JONES	10/15/2015	1018	J. J. JONES	10/15/2015	1018
1019	J. J. JONES	10/15/2015	1019	J. J. JONES	10/15/2015	1019	J. J. JONES	10/15/2015	1019
1020	J. J. JONES	10/15/2015	1020	J. J. JONES	10/15/2015	1020	J. J. JONES	10/15/2015	1020
1021	J. J. JONES	10/15/2015	1021	J. J. JONES	10/15/2015	1021	J. J. JONES	10/15/2015	1021
1022	J. J. JONES	10/15/2015	1022	J. J. JONES	10/15/2015	1022	J. J. JONES	10/15/2015	1022
1023	J. J. JONES	10/15/2015	1023	J. J. JONES	10/15/2015	1023	J. J. JONES	10/15/2015	1023
1024	J. J. JONES	10/15/2015	1024	J. J. JONES	10/15/2015	1024	J. J. JONES	10/15/2015	1024
1025	J. J. JONES	10/15/2015	1025	J. J. JONES	10/15/2015	1025	J. J. JONES	10/15/2015	1025
1026	J. J. JONES	10/15/2015	1026	J. J. JONES	10/15/2015	1026	J. J. JONES	10/15/2015	1026
1027	J. J. JONES	10/15/2015	1027	J. J. JONES	10/15/2015	1027	J. J. JONES	10/15/2015	1027
1028	J. J. JONES	10/15/2015	1028	J. J. JONES	10/15/2015	1028	J. J. JONES	10/15/2015	1028
1029	J. J. JONES	10/15/2015	1029	J. J. JONES	10/15/2015	1029	J. J. JONES	10/15/2015	1029
1030	J. J. JONES	10/15/2015	1030	J. J. JONES	10/15/2015	1030	J. J. JONES	10/15/2015	1030

TESTER'S SIGNATURE: J. J. JONES

DATE: 10/15/2015

TESTER'S NAME: J. J. JONES

DATE: 10/15/2015

TESTER'S NAME: J. J. JONES

DATE: 10/15/2015

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DATE: 10/15/2015

TESTER'S NAME: J. J. JONES

DATE: 10/15/2015

TESTER'S NAME: J. J. JONES

DATE: 10/15/2015

AMES 07-717 IA9 OGA + S3 + T9 ORBITER FUSELAGE

(RBNB21)

MACH ( 3 ) = 3.912 BETAT ( 4 ) = .063

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI								.7490							
180.000	1.3000	.8780	.3160	.1130	.0840	.1210									
X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					
PHI															
.0000	-.0450	-.0315	-.0120	.0250	-.0400	-.0270	-.0410	-.0160	-.0440	-.0820					
40.000	-.0420	-.0375	-.0250	-.0890	-.0720	-.0580	-.0510	-.0590	-.0480						
70.000	-.0750	-.0810	-.0680	-.0560	-.0530	-.0500	-.0480	-.0440							
90.000	-.0730	-.0810	-.0680	-.0560	-.0530	-.0500	-.0480	-.0440							
110.000	-.0650	-.0670	-.0670	-.0620	-.0530	-.0480	-.0480	-.0430	-.0330						
120.000	-.0650	-.0670	-.0670	-.0620	-.0530	-.0480	-.0480	-.0430	-.0330						
135.000	-.0550	-.0540	-.0530	-.0670	-.0530	-.0590	-.0590	-.0380							
150.000	-.0460	-.0420	-.0460	-.0270	-.0160	-.0190									
165.000	-.0460	-.0420	-.0460	-.0270	-.0160	-.0190									
180.000	-.0420	-.0420	-.0420	-.0390											

MACH ( 3 ) = 3.912 BETAT ( 5 ) = 4.470

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0150	.0339	.0612	.1355	.1516	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.000	1.8980	.9230	.4310	.0570	.0380	-.0320			.0710						
20.000	.4260	.0690	.0190	-.0290	-.0190	-.0290			-.0130						
40.000	.4470	.0690	.0220	-.0280	-.0280	-.0280			-.0170						
55.000	.4370	.0690	.0210	-.0330	-.0330	-.0330			-.0070						
70.000	.3790	.0690	.0450	.0440	.0440	.0440			.0400						
80.000	.3240	.0360	.0360	.0310	.0310	.0310			-.0210						
100.000	.3030	.0940	.0240	.0290					-.0040						
142.000	.3110	.0770	.0610	.0770					.3120						
150.000					.5400										
157.000									.5180						
162.000															
165.000															
169.000									.5480						
172.000															
180.000	1.2980	.8680	.3110	.0780	.0920	.1100			.7180						
X/LB	.5973	.6626	.7380	.7869	.8283	.8848	.9262	.9639	1.0015	1.0392					
PHI															
.000	-.0460	-.0520	-.0240	-.0210	-.0450	-.0860			-.0620						
.000	-.0630	-.0520	-.0240	-.0210	-.0450	-.0860			-.0630						

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TABULATED PRESSURE DATA - 1A9C

AVES 87-71.7 3A9 CBA \* S3 \* T9 OF BITTER FUSELAGE

(994821)

MACH (3) = 3.312 BETAT (5) = 4.470

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.5973	.6525	.7380	.7859	.8283	.8949	.9262	.9539	1.0015	1.0392
PMI										
70.000	-0.0770	-0.0880	-0.0790	-0.0790	-0.0810	-0.0810	-0.0880	-0.0830		
90.000	-0.0720	-0.0770	-0.0710	-0.0710	-0.0680	-0.0680	-0.0680	-0.0680		
110.000									.0240	
130.000	-0.0320	-0.0380	-0.0350	-0.0350	-0.0330	-0.0330	-0.0370	-0.0340		
150.000	-0.0450	-0.0510	-0.0480	-0.0480	-0.0460	-0.0460	-0.0500	-0.0470		
170.000	-0.0520	-0.0580	-0.0550	-0.0550	-0.0530	-0.0530	-0.0570	-0.0540		
190.000	-0.0790	-0.0710	-0.0710	-0.0710	-0.0690	-0.0690	-0.0730	-0.0700		

MACH (3) = 3.312 BETAT (5) = 6.570

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0073	.0088	.0339	.0512	.0335	.0516	.0581	.0732	.0938	.0271	.0271	.0320	.0393	.0320
PMI															
20.000	1.2590	.8310	.4110	.0810	.0210	-0.0240			.0930		.0170	.0170	.0170	.0120	-0.0320
25.000									.0430		.0430	.0430	.0430	.0430	.0430
30.000									.0220		.0220	.0220	.0220	.0220	.0220
35.000									.0180		.0180	.0180	.0180	.0180	.0180
40.000									.0070		.0070	.0070	.0070	.0070	.0070
45.000									.0000		.0000	.0000	.0000	.0000	.0000
50.000									.0000		.0000	.0000	.0000	.0000	.0000
55.000									.0000		.0000	.0000	.0000	.0000	.0000
60.000									.0000		.0000	.0000	.0000	.0000	.0000
65.000									.0000		.0000	.0000	.0000	.0000	.0000
70.000									.0000		.0000	.0000	.0000	.0000	.0000
75.000									.0000		.0000	.0000	.0000	.0000	.0000
80.000									.0000		.0000	.0000	.0000	.0000	.0000
85.000									.0000		.0000	.0000	.0000	.0000	.0000
90.000									.0000		.0000	.0000	.0000	.0000	.0000
95.000									.0000		.0000	.0000	.0000	.0000	.0000
100.000									.0000		.0000	.0000	.0000	.0000	.0000
105.000									.0000		.0000	.0000	.0000	.0000	.0000
110.000									.0000		.0000	.0000	.0000	.0000	.0000
115.000									.0000		.0000	.0000	.0000	.0000	.0000
120.000									.0000		.0000	.0000	.0000	.0000	.0000
125.000									.0000		.0000	.0000	.0000	.0000	.0000
130.000									.0000		.0000	.0000	.0000	.0000	.0000
135.000									.0000		.0000	.0000	.0000	.0000	.0000
140.000									.0000		.0000	.0000	.0000	.0000	.0000
145.000									.0000		.0000	.0000	.0000	.0000	.0000
150.000									.0000		.0000	.0000	.0000	.0000	.0000

MACH (3) = 3.312 BETAT (5) = 6.570

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0073	.0088	.0339	.0512	.0335	.0516	.0581	.0732	.0938	.0271	.0271	.0320	.0393	.0320
PMI															
20.000	1.2590	.8310	.4110	.0810	.0210	-0.0240			.0930		.0170	.0170	.0170	.0120	-0.0320
25.000									.0430		.0430	.0430	.0430	.0430	.0430
30.000									.0220		.0220	.0220	.0220	.0220	.0220
35.000									.0180		.0180	.0180	.0180	.0180	.0180
40.000									.0070		.0070	.0070	.0070	.0070	.0070
45.000									.0000		.0000	.0000	.0000	.0000	.0000
50.000									.0000		.0000	.0000	.0000	.0000	.0000
55.000									.0000		.0000	.0000	.0000	.0000	.0000
60.000									.0000		.0000	.0000	.0000	.0000	.0000
65.000									.0000		.0000	.0000	.0000	.0000	.0000
70.000									.0000		.0000	.0000	.0000	.0000	.0000
75.000									.0000		.0000	.0000	.0000	.0000	.0000
80.000									.0000		.0000	.0000	.0000	.0000	.0000
85.000									.0000		.0000	.0000	.0000	.0000	.0000
90.000									.0000		.0000	.0000	.0000	.0000	.0000
95.000									.0000		.0000	.0000	.0000	.0000	.0000
100.000									.0000		.0000	.0000	.0000	.0000	.0000
105.000									.0000		.0000	.0000	.0000	.0000	.0000
110.000									.0000		.0000	.0000	.0000	.0000	.0000
115.000									.0000		.0000	.0000	.0000	.0000	.0000
120.000									.0000		.0000	.0000	.0000	.0000	.0000
125.000									.0000		.0000	.0000	.0000	.0000	.0000
130.000									.0000		.0000	.0000	.0000	.0000	.0000
135.000									.0000		.0000	.0000	.0000	.0000	.0000
140.000									.0000		.0000	.0000	.0000	.0000	.0000
145.000									.0000		.0000	.0000	.0000	.0000	.0000
150.000									.0000		.0000	.0000	.0000	.0000	.0000









AMES 97-757 1A9 02A + 33 + 79 OPBITER FUSelage

(1594822)

WACO ( 3 ) = 2.499 BETA\* ( 3 ) = -4.130

## SECTION 1 ( 3 ) OPBITER FUSelage DEPENDENT VARIABLE CP

ALB	0.000	0.075	0.150	0.225	0.300	0.375	0.450	0.525	0.600	0.675	0.750	0.825	0.900	0.975
0.000														
0.075														
0.150														
0.225														
0.300														
0.375														
0.450														
0.525														
0.600														
0.675														
0.750														
0.825														
0.900														
0.975														

0.000

0.075

0.150

0.225

0.300

0.375

0.450

0.525

0.600

0.675

0.750

0.825

0.900

0.975

WACO ( 4 ) = 2.499 BETA\* ( 4 ) = 1.081

## SECTION 1 ( 4 ) OPBITER FUSelage DEPENDENT VARIABLE CP

ALB	0.000	0.075	0.150	0.225	0.300	0.375	0.450	0.525	0.600	0.675	0.750	0.825	0.900	0.975
0.000														
0.075														
0.150														
0.225														
0.300														
0.375														
0.450														
0.525														
0.600														
0.675														
0.750														
0.825														
0.900														
0.975														

0.000

0.075

0.150

0.225

0.300

0.375

0.450

0.525

0.600

0.675

0.750

0.825

0.900

0.975





AMES 87-717 1A9 CBA + S3 + T9 ORBITER FUSELAGE

(23M822)

MACH ( 1 ) = 2.499 BETAT ( 6 ) = 9.48J

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5873 .9626 .738J .7888 .8283 .8948 .9282 .9639 1.1415 1.1392

PM1

183.16J -.193J -.136J .193J -.141J -.148J -.144J  
182.16J -.118J -.113J -.194J

MACH ( 1 ) = 2.499 BETAT ( 7 ) = 9.82J

SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .6110 .6175 .6200 .6339 .646E .6355 .6348 .6581 .6381 1.1392

PM1

.16J 1.289J .916J .439J .156J .131J .199J .162J .162J .162J .162J  
20.16J .392J .187J -.169J .121J .193J .162J .162J .162J .162J .162J  
40.16J .337J .133J .133J .191J .152J .152J .152J .152J .152J .152J  
55.16J .319J .132J .132J .192J .152J .152J .152J .152J .152J .152J  
70.16J .239J .113J .113J .172J .132J .132J .132J .132J .132J .132J  
90.16J .691J .277J .197J .157J .191J .191J .191J .191J .191J .191J  
120.16J .182J .116J .116J .159J .137J .137J .137J .137J .137J .137J  
140.16J .197J .111J .111J .143J .116J .116J .116J .116J .116J .116J  
157.16J .414J  
162.16J .399J  
183.16J .437J  
189.16J .591J

183.16J 1.289J .747J .231J .147J .151J .156J .427J .437J .437J .437J

182.16J .5873 .6628 .738J .7888 .8283 .8948 .9282 .9639 1.1415 1.1392

X/LB .5873 .9626 .738J .7888 .8283 .8948 .9282 .9639 1.1415 1.1392

PM1

.16J .162J  
40.16J -.148J -.148J -.133J -.133J -.133J -.133J -.133J -.133J -.133J  
60.16J -.117J -.117J -.116J -.116J -.116J -.116J -.116J -.116J  
70.16J -.189J -.189J -.179J -.179J -.179J -.179J -.179J -.179J  
90.16J .115J .115J .115J .115J .115J .115J .115J .115J .115J .115J  
110.16J .115J .115J .115J .115J .115J .115J .115J .115J .115J .115J  
120.16J .115J .115J .115J .115J .115J .115J .115J .115J .115J .115J  
130.16J .115J .115J .115J .115J .115J .115J .115J .115J .115J .115J  
140.16J .115J .115J .115J .115J .115J .115J .115J .115J .115J .115J  
150.16J .115J .115J .115J .115J .115J .115J .115J .115J .115J .115J  
160.16J .115J .115J .115J .115J .115J .115J .115J .115J .115J .115J  
170.16J .115J .115J .115J .115J .115J .115J .115J .115J .115J .115J  
180.16J .115J .115J .115J .115J .115J .115J .115J .115J .115J .115J

DATE 17 SEP 73

TABULATED PRESSURE DATA - 1A9C

PAGE 407

AEC 97-717 1A9 08A + 33 + 79 OFBITER FUSELAGE

(RBH022)

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.530

DEPENDENT VARIABLE CP

SECTION ( 1 )	OFBITER FUSELAGE	X/Y/B	CP	0.108	0.339	0.612	0.335	0.195	0.581	0.1732	0.1938	0.2259	0.2711	0.3214	0.3953	0.5120
P01																
01-000	1.1480	0.840	0.390	0.330	0.680	0.040			0.630							
20-000	0.980	0.780	0.180	0.180	0.830				0.170							
40-000	0.530	0.170	0.110	0.280					0.140							
55-000	0.530	0.230	0.170	0.350					0.270							
70-000	0.510	0.220	0.190	0.320					0.280							
90-000	1.1620	0.910	0.220	0.170					0.160							
120-000	0.490	0.130	0.220	0.170					0.250							
142-000	0.340	0.110	0.190	0.480					0.530							
190-000	0.500	0.190	0.480						0.590							
252-000	0.500	0.190	0.480						0.490							
253-000	0.500	0.190	0.480						0.590							
259-000	0.500	0.190	0.480						0.490							
272-000	1.1480	0.730	0.220	0.170	0.710		0.440		0.490							
290-000	0.580	0.620	0.730	0.760	0.820	0.800	0.820	0.960	1.140	1.132						

A/B

P01

01-000	-0.530								-0.110							
20-000	0.780	0.190	0.180	0.180	0.870				-0.180							
40-000	-0.320	-0.330	-0.180	-0.120	-0.180				-0.170							
55-000	-0.420	-0.460	0.110	0.190	0.650				-0.160							
70-000	0.500	0.480	0.140	0.130	0.620				0.120							
90-000	-0.170	-0.170	0.280	0.330	0.130				0.890							
120-000	0.730	0.730	0.170	0.160	0.610				0.630							
142-000	-0.170	-0.170	0.170	0.160	-0.180				-0.180							
190-000	-0.170	-0.170	0.140	0.130	0.620				-0.180							
252-000	-0.170	-0.170	0.140	0.130	0.620				-0.180							
253-000	-0.170	-0.170	0.140	0.130	0.620				-0.180							
259-000	-0.170	-0.170	0.140	0.130	0.620				-0.180							
272-000	0.990	0.990	0.130	0.130	0.110				0.230							
290-000	0.420	0.420	0.290	0.180	0.110				0.490							

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -0.290

DEPENDENT VARIABLE CP

SECTION ( 1 )	OFBITER FUSELAGE	X/Y/B	CP	0.108	0.339	0.612	0.335	0.195	0.581	0.1732	0.1938	0.2259	0.2711	0.3214	0.3953	0.5120
P01																
01-000	1.3170	0.9170	0.440	0.680	0.670	0.370			0.150							
20-000	0.980	0.780	0.180	0.180	0.830				0.110							
40-000	0.570	0.170	0.110	0.280					0.120							
55-000	0.530	0.170	0.110	0.280					0.270							
70-000	0.580	0.150	0.110	0.110					0.230							
90-000	0.990	0.910	0.130	0.130	0.110				0.230							
120-000	0.420	0.290	0.180	0.110	0.110				0.490							











## AVES 87-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(RBIN822)

MACH ( 3 ) = 3.302 BETAT ( 2 ) = -6.49D

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	PHI	.0440	.0475	.0188	.0339	.0602	.1355	.1946	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5120
.140	1.1730	.8710	.4210	.0920	.0190	-.0380			.1250	.0380	.0170	.0410	.0070	-.0304		
20.140		.4790	.0820	.0270	-.0190				.0630	.0280						
40.140		.5920	.1320	.0900	.1280				.1760	.0790	.0410	-.0200	-.0370	-.0430		
55.140		.6170	.1460	.1390	.1410				.2570	.1710						
70.140		.5730	.1620	.1160	.1310				.1440	.2100	.0910	.0280	-.0040	-.0210		
90.140		.5480	.1670	.1170	.1330				.1450	.1960	.0880	.0230	-.0140	-.0310		
105.140		.4610	.1660	.1110	.1360				.1430	.0860	.0150	-.0400	-.0340	-.0370		
120.140		.3770	.1110	.0910	.1260				.4790	-.0100	-.0330	-.0350	-.0380	-.0470		
130.140							.5630									
162.140									.5260							
165.140									.4840							
169.140																
172.140							.5460									
180.000	1.1730	.7630	.2640	.0840	.0700	.0790			.6060	-.0610	-.0700	-.0800	-.0790	-.0960		

X/LB .5875 .6626 .7380 .7869 .8283 .8648 .9262 .9639 1.0415 1.0332

## PHI

.140	-.0370															
40.140	-.0410	.0440	.1940	.1160	.0630	.0360			-.0710							
70.140		-.0440	-.0620	-.0490	-.0130	-.0180	-.0160									
90.140		-.0490	-.0900	-.0420	-.0110	.0190	.0180									
105.140			-.0490	.0270	-.0490	.0330	.0110									
110.140								.0340								
120.140		-.0680	-.0670	.2040	.1510	.0320	.0190	.0480								
135.140			.0560	.0930	-.0150	-.0680	-.0630									
150.140		-.0650	-.0670	-.0390	-.0290	-.0790	-.0780	-.0640								
165.140		-.0640		-.0360	-.0120	-.0410	-.0290									
180.140		-.0910	-.0690													

MACH ( 3 ) = 3.302 BETAT ( 3 ) = -4.310

## SECTION ( 1 ) ORBITER FUSELAGE

## DEPENDENT VARIABLE CP

X/LB	PHI	.0440	.0475	.0188	.0339	.0602	.1355	.1946	.1581	.1732	.1958	.2259	.2711	.3244	.3953	.5120
.140	1.2180	.9190	.4490	.0760	.0240	-.0300			.0630	.0470	.0130	.0320	.0180	-.0280		
20.140		.4830	.0980	.0420	-.0340				.0910	.0340						
40.140		.5790	.1290	.0860	.0310				.0640	.0310	-.0100	-.0230	-.0450			
55.140		.6020	.1350	.1090	.0870				.1490	.1490						
70.140		.5690	.1430	.0890	.0760				.1750	.0660	.0090	.0240	-.0160	-.0350		
90.140		.5460	.1430	.0860	.0770				.1620	.0730	.0110	-.0230	-.0400			
105.140		.4280	.1420	.0900	.0140				.0560	-.0480	-.0120	-.0400	-.0460			



ANES 07-7J7 IA9 OSA + S3 + T9 ORBITER FUSELAGE

(RBNB22)

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .060

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0400	.0475	.0488	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
100.000	1.3800	.7090	.2720	.0840	.0730	.0310		.6570		-.0690	-.0670	-.0670	-.0610	-.0610	
X/LB	.5073	.6826	.7380	.7889	.8283	.8848	.9262	.9639	1.0015	1.0392					

PHI

.0000	-.0070														
40.000	-.0080	-.0150	.0200	.0100	-.0100	-.0510		.0770		-.0300					
70.000	-.0120	-.0180	-.0180	-.0170	-.0160	-.0560		-.0580		-.0750					
90.000	-.0160	-.0180	-.0170	-.0150	-.0140	-.0540		-.0470							
105.000		-.0140	-.0130	-.0120	-.0110	-.0520		-.0420							
110.000								-.0390							
120.000		-.0110	-.0100	.0200	-.0100	-.0440	-.0410	-.0330	-.0350						
130.000		.0030	.0050	.0030	-.0030	-.0030	-.0320								
150.000		-.0070	-.0080	-.0010	-.0010	-.0410	-.0280								
160.000		-.0090	-.0090	-.0060	-.0030	-.0190	-.0280								
180.000		-.0100	-.0100												

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.480

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB	.0000	.0075	.0188	.0339	.0602	.1355	.1506	.1581	.1732	.1958	.2259	.2711	.3200	.3953	.5120
PHI															
.000	1.2000	.9070	.4490	.0710	.0200	-.0310		.0710		.0820	.0800	.0810	.0810	.0810	
20.000		.4400	.0780	.0200	-.0330			.0470		.1180					
40.000		.4310	.0780	.0200	-.0280			.0420		.0310					
50.000		.4310	.0780	.0200	-.0270			-.0110		-.0170					
70.000		.3740	.0770	-.0030	-.0100			-.0050		-.0150					
90.000		.3090	.0300	-.0020	.0000			.0020		-.0040					
120.000		.2720	.0420	.0160	.0180			.0030		-.0160					
140.000		.2700	.0550	.0420	.0540			.2640		-.0510					
157.000							.4610								
162.000								.4430							
165.000								.4650							
169.000															
172.000															
180.000															

X/LB .5073 .6826 .7380 .7889 .8283 .8848 .9262 .9639 1.0015 1.0392

PHI

.0000	-.0090														
40.000	-.0100	-.0100						-.0670		-.0450					
70.000	-.0100	-.0100						-.0670		-.0520					

## AMES 87-707 IA9 ORA + S3 + 19 ORBITER FUSELAGE

(RBNB22)

MACH ( 3 ) = 3.942      BETAT ( 5 ) = 4.480

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
71.1440	-.14830	-.15914	-.16920	-.17750	-.17710	-.17760	-.17680	-.16650		
90.1440	-.17750	-.16810	-.16690	-.16690	-.15580	-.16440	-.16440	-.16630		
110.1440		-.16630	-.16690	-.16690	-.15570	-.16630	-.16630	-.16630		
120.1440	-.16690	-.16670	-.16230	-.16680	-.15570	-.16680	-.16630	-.16630	.0120	
135.1440		-.17680	-.17680	-.15570	-.16660	-.16660	-.16660	-.16660	-.16660	
150.1440	-.15550	-.16630	-.16690	-.16690	-.15530	-.16630	-.16630	-.16630		
165.1440	-.15550	-.16630	-.16690	-.16690	-.15530	-.16630	-.16630	-.16630		
180.1440	-.15550	-.16630	-.16690	-.16690	-.15530	-.16630	-.16630	-.16630		

MACH ( 3 ) = 3.942      BETAT ( 6 ) = 6.740

## SECTION ( 1 ) ORBITER FUSELAGE      DEPENDENT VARIABLE CP

X/LB	.1440	.1675	.1888	.2039	.2162	.2355	.2506	.2691	.2711	.2820	.2953	.3120
PHI												
.1440	1.1340	.8620	.4180	.1570	.1230	-.1380						
20.1440		.4040	.1230	.1440	-.1440							
40.1440		.3970	.1560	.1440	-.1440							
55.1440		.3660	.1440	.1370	-.1370							
70.1440		.3110	.1560	.1210	-.1290							
90.1440		.2560	.1460	.1190	-.1190							
120.1440		.2290	.1220	-.1420	-.1410							
150.1440		.2410	.1390	.1280	.1420							
162.1440					.4210							
165.1440												
169.1440												
172.1440												
180.1440	1.1540	.7820	.2590	.1740	.1630	.1710	.4170					
PHI												
.1440	1.1340	.8620	.4180	.1570	.1230	-.1380						
20.1440		.4040	.1230	.1440	-.1440							
40.1440		.3970	.1560	.1440	-.1440							
55.1440		.3660	.1440	.1370	-.1370							
70.1440		.3110	.1560	.1210	-.1290							
90.1440		.2560	.1460	.1190	-.1190							
120.1440		.2290	.1220	-.1420	-.1410							
150.1440		.2410	.1390	.1280	.1420							
162.1440					.4210							
165.1440												
169.1440												
172.1440												
180.1440	1.1540	.7820	.2590	.1740	.1630	.1710	.4170					

X/LB	.5873	.6626	.7380	.7869	.8283	.8848	.9282	.9639	1.0015	1.0392
PHI										
.1440	1.1340	.8620	.4180	.1570	.1230	-.1380				
20.1440		.4040	.1230	.1440	-.1440					
40.1440		.3970	.1560	.1440	-.1440					
55.1440		.3660	.1440	.1370	-.1370					
70.1440		.3110	.1560	.1210	-.1290					
90.1440		.2560	.1460	.1190	-.1190					
120.1440		.2290	.1220	-.1420	-.1410					
150.1440		.2410	.1390	.1280	.1420					
162.1440					.4210					
165.1440										
169.1440										
172.1440										
180.1440	1.1540	.7820	.2590	.1740	.1630	.1710	.4170			

## AMES 87-707 1A9 ORA + S3 + T9 ORBITER FUSELAGE

(R8N822)

MACH ( 3 ) = 3.542 BETAT ( 6 ) = 6.700

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .5873 .6826 .7380 .7869 .8283 .8848 .9282 .9639 1.1415 1.1392

PHI  
 185.1400 -.0780 -.5510 .0000 -.0610 -.0670 -.0490  
 186.1400 -.0900 -.1040 -.0670

MACH ( 3 ) = 3.542 BETAT ( 7 ) = 6.910

## SECTION ( 1 ) ORBITER FUSELAGE DEPENDENT VARIABLE CP

X/LB .0000 .1475 .1486 .5339 .1612 .1355 .1956 .1581 .1732 .1958 .2259 .2711 .3200 .3953 .5120

PHI  
 .040 1.1180 .7990 .3720 .1430 .0120 -.0170 .0670 .0260 .0260 .0260 .0260 .0260 .0260 .0260  
 20.1400 .3370 .0280 .0070 -.0420 .0660 .0660 .0660 .0660 .0660 .0660 .0660 .0660 .0660 .0660  
 40.1400 .3240 .0280 .0180 .0480 .0410 .0410 .0410 .0410 .0410 .0410 .0410 .0410 .0410 .0410  
 55.1400 .2990 .0250 .0250 .0470 .0360 .0360 .0360 .0360 .0360 .0360 .0360 .0360 .0360 .0360  
 70.0000 .2450 .0240 .0380 .0360 .0360 .0360 .0360 .0360 .0360 .0360 .0360 .0360 .0360 .0360  
 90.1400 .5940 .1990 .0190 .0370 .0290 .0290 .0290 .0290 .0290 .0290 .0290 .0290 .0290 .0290  
 120.1400 .1860 .0140 .0220 .0220 .0220 .0220 .0220 .0220 .0220 .0220 .0220 .0220 .0220 .0220  
 142.1400 .2190 .0230 .0190 .0190 .0190 .0190 .0190 .0190 .0190 .0190 .0190 .0190 .0190 .0190  
 150.0000 .4020 .4020 .4020 .4020 .4020 .4020 .4020 .4020 .4020 .4020 .4020 .4020 .4020 .4020  
 157.1400 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240  
 165.0000 .3980 .3980 .3980 .3980 .3980 .3980 .3980 .3980 .3980 .3980 .3980 .3980 .3980 .3980  
 169.1400 .5720 .5720 .5720 .5720 .5720 .5720 .5720 .5720 .5720 .5720 .5720 .5720 .5720 .5720  
 172.0000 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240 .4240  
 180.1400 1.1380 .7380 .2480 .0670 .0570 .0670 .0670 .0670 .0670 .0670 .0670 .0670 .0670 .0670

X/LB .5873 .6826 .7380 .7869 .8283 .8848 .9282 .9639 1.1415 1.1392

PHI  
 .0000 -.0360  
 40.1400 -.0780  
 70.1400 -.0680  
 90.1400 -.0790  
 105.1400 .1610  
 110.1400 .0110  
 120.1400 .0140  
 135.1400 .1440  
 150.1400 .1690  
 165.1400 .1040  
 180.1400 .1160



AMES 87-757 IA9 O2A + S3 + T9 ORBITER BASE

(RBNC01) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .1000 SCALE

## PARAMETRIC DATA

BETAT = .000 ORBINC = .500  
 RUDDER = .000 ELEVON = .000  
 RUDFLR = .000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	ALPHAT( 1 ) = -8.100	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1210	-.1260	-.1260	-.1240	-.1250	-.1210	-.1370	-.1460
MACH ( 1 ) = 2.498	ALPHAT( 2 ) = -6.070	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1230	-.1300	-.1290	-.1290	-.1270	-.1380	-.1580	-.1460
MACH ( 1 ) = 2.498	ALPHAT( 3 ) = -4.030	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1330	-.1350	-.1360	-.1360	-.1330	-.1340	-.1470	-.1510
MACH ( 1 ) = 2.498	ALPHAT( 4 ) = -2.000	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1380	-.1410	-.1390	-.1390	-.1330	-.1380	-.1480	-.1530
MACH ( 1 ) = 2.498	ALPHAT( 5 ) = .000	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1370	-.1410	-.1410	-.1430	-.1390	-.1390	-.1480	-.1650
MACH ( 1 ) = 2.498	ALPHAT( 6 ) = 1.930	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1410	-.1430	-.1430	-.1470	-.1380	-.1420	-.1490	-.1570
MACH ( 1 ) = 2.498	ALPHAT( 7 ) = 3.900	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1440	-.1450	-.1450	-.1450	-.1380	-.1440	-.1510	-.1580
MACH ( 1 ) = 2.498	ALPHAT( 8 ) = 5.950	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1390	-.1430	-.1440	-.1440	-.1370	-.1410	-.1460	-.1570
MACH ( 1 ) = 2.498	ALPHAT( 9 ) = 8.010	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1470	-.1490	-.1470	-.1470	-.1390	-.1450	-.1510	-.1580
MACH ( 2 ) = 2.999	ALPHAT( 1 ) = -9.070	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1680	-.1690	-.1690	-.1690	-.1630	-.1620	-.1640	-.1710

AMES 87-707 1:9 OEA + S3 + T9 ORBITER BASE

(RBNCU1)

SECTION ( 1) ORBITER BASE

DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	ALPHAT( 2) = -6.100	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0990	-.0990	-.0980	-.0950	-.0970	-.0980	-.0990	-.1040
MACH ( 2) = 2.999	ALPHAT( 3) = -4.070	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0990	-.0990	-.0980	-.0970	-.0980	-.0970	-.0970	-.1030
MACH ( 2) = 2.999	ALPHAT( 4) = -2.000	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0980	-.0960	-.0970	-.0960	-.0980	-.0980	-.0980	-.1020
MACH ( 2) = 2.999	ALPHAT( 5) = -.000	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0980	-.1010	-.1010	-.1010	-.1010	-.1010	-.0990	-.1060
MACH ( 2) = 2.999	ALPHAT( 6) = 1.990	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0980	-.1020	-.1020	-.1020	-.0990	-.0990	-.1020	-.1050
MACH ( 2) = 2.999	ALPHAT( 7) = 3.960	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0980	-.1040	-.1040	-.1020	-.1010	-.1010	-.1010	-.1060
MACH ( 2) = 2.999	ALPHAT( 8) = 5.980	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1000	-.1030	-.1060	-.1060	-.1030	-.1040	-.1030	-.1070
MACH ( 2) = 2.999	ALPHAT( 9) = 8.000	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1000	-.1040	-.1090	-.1090	-.1020	-.1020	-.1020	-.1070
MACH ( 3) = 3.512	ALPHAT( 1) = -8.080	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0680	-.0710	-.0710	-.0730	-.0740	-.0750	-.0740	-.0720
MACH ( 3) = 3.512	ALPHAT( 2) = -6.080	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0730	-.0750	-.0760	-.0770	-.0840	-.0810	-.0780	-.0780
MACH ( 3) = 3.512	ALPHAT( 3) = -4.070	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0750	-.0760	-.0780	-.0800	-.0800	-.0820	-.0830	-.0830
MACH ( 3) = 3.512	ALPHAT( 4) = -2.020	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0680	-.0720	-.0740	-.0750	-.0750	-.0750	-.0750	-.0750

## AMES 87-707 IAS O2A + S3 + T3 ORBITER BASE

(RBNC01)

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	ALPHAT( 5 ) = -.030	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0730	-.0730	-.0770	-.0770	-.0780	-.0800	-.0780	-.0780
MACH ( 3 ) = 3.502	ALPHAT( 6 ) = 1.950	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0800	-.0810	-.0830	-.0820	-.0850	-.0840	-.0840	-.0830
MACH ( 3 ) = 3.502	ALPHAT( 7 ) = 3.960	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0790	-.0820	-.0830	-.0850	-.0830	-.0840	-.0820	-.0840
MACH ( 3 ) = 3.502	ALPHAT( 8 ) = 5.970	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0840	-.0870	-.0890	-.0890	-.0870	-.0870	-.0870	-.0850
MACH ( 3 ) = 3.502	ALPHAT( 9 ) = 8.010	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0780	-.0790	-.0790	-.0830	-.0780	-.0790	-.0780	-.0800

AXES 07-707 IAG ORA + S3 + T9 ORBITER BASE

(RBNC02) ( 10 MAY 75 )

## REFERENCE DATA

SRCP = 2.4210 SQ.FT. XRRP = 28.5350 INCHES  
 LREF = 39.8490 INCHES YRRP = .0020 INCHES  
 BRCP = 39.8490 INCHES ZRRP = .0000 INCHES  
 SCALE = .0020 SCALE

## PARAMETRIC DATA

ALPHAT = -8.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.400	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1260	-.1290	-.1300	-.1300	-.1310	-.1490	-.1680	-.1430
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.200	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1270	-.1290	-.1310	-.1280	-.1190	-.1300	-.1440	-.1700
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.100	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1240	-.1260	-.1260	-.1190	-.1260	-.1380	-.1670	-.1420
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.000	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1220	-.1270	-.1300	-.1290	-.1200	-.1350	-.1640	-.1440
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.100	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1180	-.1220	-.1190	-.1200	-.1150	-.1200	-.1300	-.1490
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.300	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1290	-.1270	-.1290	-.1250	-.1190	-.1260	-.1380	-.1520
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.400	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1270	-.1290	-.1270	-.1290	-.1170	-.1280	-.1380	-.1620
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.500	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1300	-.1330	-.1300	-.1310	-.1210	-.1310	-.1380	-.1670
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.500	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0930	-.0930	-.0960	-.0950	-.0910	-.0920	-.0950	-.0950
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.400	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0860	-.0890	-.0920	-.0910	-.0870	-.0900	-.0900	-.0960



## AMES 87-707 IA9 OCA + S3 + T9 ORBITER BASE

(RBNC12)

## SECTION ( 3) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 3) = 3.502	BETAT ( 7) = 6.660	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0670	-.0680	-.0710	-.0720	-.0720	-.0720	-.0730	-.0720
MACH ( 3) = 3.502	BETAT ( 8) = 6.910	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0740	-.0760	-.0780	-.0800	-.0780	-.0780	-.0780	-.0810

AWES 07-707 1A9 ORA + S3 + T9 ORBITER BASE

(RIBANCU3) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = -6.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1290	-.1330	-.1340	-.1210	-.1310	-.1490	-.1720	-.1460
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.290	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1270	-.1290	-.1320	-.1220	-.1320	-.1450	-.1700	-.1440
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1300	-.1300	-.1290	-.1290	-.1310	-.1420	-.1680	-.1450
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -6.070	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1240	-.1290	-.1290	-.1240	-.1190	-.1270	-.1380	-.1460
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1260	-.1280	-.1280	-.1270	-.1210	-.1260	-.1340	-.1420
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.310	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1230	-.1240	-.1290	-.1270	-.1190	-.1260	-.1350	-.1470
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.440	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1290	-.1310	-.1290	-.1290	-.1190	-.1300	-.1370	-.1610
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.570	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1300	-.1340	-.1330	-.1330	-.1180	-.1300	-.1360	-.1660
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.570	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1940	-.1960	-.1960	-.1960	-.1930	-.1940	-.1950	-.1990
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0910	-.0940	-.0960	-.0930	-.0890	-.0930	-.0930	-.0960

## AMES 87-707 IA9 O2A + S3 + T9 ORBITER BASE

(RBNCU3)

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.260	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.060	-.0990	-.1000	-.0980	-.0940	-.0940	-.0960	-.0960	-.1010
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.100	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0930	-.0960	-.0980	-.0970	-.0950	-.0960	-.0970	-.1000
MACH ( 2 ) = 2.999	BETAT ( 5 ) = -2.220	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0930	-.0930	-.0950	-.0950	-.0920	-.0930	-.0920	-.0970
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.390	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0910	-.0930	-.0930	-.0910	-.0910	-.0910	-.0910	-.0930
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.560	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0860	-.0870	-.0890	-.0890	-.0850	-.0870	-.0860	-.0870
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.730	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0950	-.0960	-.0970	-.0960	-.0930	-.0950	-.0940	-.0960
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.730	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0720	-.0770	-.0780	-.0760	-.0760	-.0770	-.0780	-.0780
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.530	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0690	-.0740	-.0760	-.0760	-.0740	-.0740	-.0740	-.0740
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.340	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0750	-.0770	-.0790	-.0780	-.0790	-.0770	-.0770	-.0790
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.140	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0720	-.0760	-.0770	-.0750	-.0770	-.0760	-.0760	-.0780
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0730	-.0750	-.0760	-.0760	-.0780	-.0760	-.0760	-.0780
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.470	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	-.000	-.0710	-.0710	-.0720	-.0730	-.0720	-.0720	-.0730	-.0730



## AMES 87-707 1A9 ORA + S3 + T9 ORBITER BASE

(RBNC03)

## SECTION ( 1 ) ORBITER BASE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.542	BETAT ( 7 ) = 6.689	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A									
			-.0720	-.0720	-.0730	-.0750	-.0750	-.0740	-.0760	-.0740	-.0750
MACH ( 3 ) = 3.542	BETAT ( 8 ) = 6.899	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A									
			-.0750	-.0750	-.0780	-.0780	-.0770	-.0780	-.0790	-.0780	-.0790

AMES 87-707 1A9 O2A - S3 + 79 ORBITER BASE

(RBNC04) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 59.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHAT = -4.000 ORBINC = .500  
 RUDDER = .000 ELEVON = .000  
 RUDFLR = .000

## SECTION ( 1 ) ORBITER BASE

DEPENDENT VARIABLE C<sub>P</sub>

MACH	BETAT	TAP NO	C <sub>P</sub>	TAP NO	C <sub>P</sub>	TAP NO	C <sub>P</sub>	TAP NO	C <sub>P</sub>	TAP NO	C <sub>P</sub>	TAP NO	C <sub>P</sub>
MACH ( 1 ) = 2.496	BETAT ( 1 ) = -6.430	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1330	-.1370	-.1370	-.1240	-.1340	-.1340	-.1340	-.1340	-.1340	-.1340
MACH ( 1 ) = 2.496	BETAT ( 2 ) = -6.310	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1320	-.1340	-.1350	-.1250	-.1350	-.1350	-.1350	-.1350	-.1350	-.1350
MACH ( 1 ) = 2.496	BETAT ( 3 ) = -4.190	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1320	-.1350	-.1370	-.1380	-.1270	-.1350	-.1440	-.1710	-.1490	-.1490
MACH ( 1 ) = 2.496	BETAT ( 4 ) = -2.070	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1120	-.1340	-.1350	-.1340	-.1250	-.1310	-.1410	-.1670	-.1510	-.1510
MACH ( 1 ) = 2.496	BETAT ( 5 ) = 2.180	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1320	-.1370	-.1330	-.1340	-.1270	-.1340	-.1410	-.1590	-.1470	-.1470
MACH ( 1 ) = 2.496	BETAT ( 6 ) = 4.300	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1330	-.1350	-.1340	-.1350	-.1240	-.1330	-.1430	-.1560	-.1430	-.1430
MACH ( 1 ) = 2.496	BETAT ( 7 ) = 6.430	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1330	-.1360	-.1370	-.1370	-.1230	-.1350	-.1410	-.1640	-.1440	-.1440
MACH ( 1 ) = 2.496	BETAT ( 8 ) = 8.550	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1330	-.1350	-.1330	-.1210	-.1330	-.1360	-.1640	-.1440	-.1440	-.1440
MACH ( 2 ) = 2.996	BETAT ( 1 ) = -6.560	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1940	-.1940	-.1960	-.1940	-.1890	-.1920	-.1940	-.1920	-.1920	-.1920
MACH ( 2 ) = 2.996	BETAT ( 2 ) = -6.420	A	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	9.160	9.160
		A	.000	-.1940	-.1950	-.1960	-.1970	-.1920	-.1920	-.1940	-.1930	-.1930	-.1930

## AVES 87-707 1A9 ORA + S3 + T9 ORBITER BASE

(RBNC04)

SECTION ( 1 ) ORBITER BASE		DEPENDENT VARIABLE CP									
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -0.260	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0980	-.0980	-.0980	-.0980	-.0980	-.0980	-.0980	-.0980
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.110	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0990	-.0970	-.0990	-.0980	-.0960	-.0940	-.0960	-.0970
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.210	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0990	-.0980	-.0960	-.0960	-.0930	-.0960	-.0970	-.0970
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.380	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0960	-.0960	-.0980	-.0960	-.0950	-.0980	-.0960	-.0960
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.590	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0990	-.0960	-.0980	-.0960	-.0920	-.0940	-.0940	-.0990
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.710	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0960	-.0980	-.0990	-.0960	-.0930	-.0940	-.0940	-.0970
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.740	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0730	-.0760	-.0790	-.0790	-.0770	-.0760	-.0740	-.0760
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.540	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0730	-.0770	-.0800	-.0790	-.0770	-.0780	-.0790	-.0770
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.340	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0770	-.0790	-.0830	-.0830	-.0810	-.0800	-.0800	-.0830
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.190	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0750	-.0740	-.0750	-.0720	-.0730	-.0730	-.0740	-.0730
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0750	-.0710	-.0730	-.0720	-.0720	-.0740	-.0730	-.0730
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.460	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0720	-.0730	-.0750	-.0770	-.0740	-.0750	-.0760	-.0740

AMES 87-707 IAS ORA + S3 + T9 ORBITER BASE (RBNC04)

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.000	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A									
			.500	-.0760	-.0750	-.0770	-.0760	-.0750	-.0760	-.0770	-.0770
MACH ( 3 ) = 3.502	BETAT ( 8 ) = 6.070	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A									
			.000	-.0770	-.0760	-.0750	-.0760	-.0760	-.0760	-.0760	-.0750

AVES 07-757 1A9 ORA + S3 + T9 ORBITER BASE

(ORBITUS) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 50.FT. XMRP = 20.5350 INCHES  
 LREF = 39.8490 INCHES YMRP = 0.0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = 0.0000 INCHES  
 SCALE = 0.0010 SCALE

PARAMETRIC DATA

ALPHAT = -2.0000 ORBITIC = 0.0000  
 RUDDER = 0.0000 ELEVON = 0.0000  
 RUDDLR = 0.0000

SECTION ( 1 ) ORBITER BASE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.430	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1399	-.1446	-.1410	-.1280	-.1400	-.1380	-.1350	-.1390
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.310	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1380	-.1410	-.1390	-.1270	-.1390	-.1310	-.1370	-.1340
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.190	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1370	-.1410	-.1410	-.1310	-.1400	-.1320	-.1370	-.1390
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1330	-.1380	-.1390	-.1300	-.1370	-.1300	-.1370	-.1300
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.190	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1340	-.1390	-.1370	-.1290	-.1370	-.1300	-.1360	-.1370
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.330	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1360	-.1390	-.1390	-.1300	-.1290	-.1360	-.1360	-.1370
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1380	-.1370	-.1380	-.1210	-.1380	-.1380	-.1360	-.1400
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.540	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1340	-.1370	-.1370	-.1200	-.1390	-.1390	-.1380	-.1430
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.590	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1090	-.1100	-.1120	-.1040	-.1120	-.1100	-.1120	-.1210
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.440	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1080	-.1070	-.1070	-.1030	-.1090	-.1110	-.1200	-.1100





AVES 87-707 1A9 OEA + S3 + T9 ORBITER BASE

(RDNCS) ( 10 MAY 73 )

## REFERENCE DATA

S-EF = 2.4210 50.FT. XMRP = 28.5300 INCHES  
 Y-EF = 39.8490 INCHES YMRP = .0000 INCHES  
 Z-EF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ORBINC = 3  
 RUDDER = .000 ELEVON = 3  
 RUDDLR = .000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.430	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1430	-.1490	-.1460	-.1310	-.1460	-.1590	-.1720	-.1590
		A	.000	-.1410	-.1490	-.1430	-.1270	-.1420	-.1520	-.1740	-.1600
		A	.000	-.1410	-.1460	-.1400	-.1260	-.1410	-.1520	-.1740	-.1570
		A	.000	-.1380	-.1410	-.1410	-.1310	-.1390	-.1470	-.1710	-.1530
		A	.000	-.1360	-.1410	-.1410	-.1340	-.1410	-.1420	-.1570	-.1390
		A	.000	-.1410	-.1420	-.1410	-.1330	-.1420	-.1450	-.1630	-.1480
		A	.000	-.1430	-.1440	-.1450	-.1280	-.1440	-.1460	-.1640	-.1510
		A	.000	-.1410	-.1410	-.1410	-.1300	-.1430	-.1460	-.1640	-.1500
		A	.000	-.1070	-.1090	-.1110	-.1110	-.1140	-.1130	-.1290	-.1180
		A	.000	-.1090	-.1100	-.1110	-.1110	-.1070	-.1130	-.1270	-.1210





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AMES 87-757 1A9 ORA + S3 + T9 ORBITER BASE

(RBNCL16)

SECTION ( 1 ) ORBITER BASE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.650	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0790	-.0810	-.1820	-.1800	-.1800	-.1800	-.1800	-.1800
MACH ( 3 ) = 3.508	BETAT ( 8 ) = 8.890	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0790	-.0810	-.0810	-.0800	-.0810	-.1800	-.1800	-.1810

AVES 87-757 1A9 O2A + S3 + T9 ORBITER BASE

(DBNC07) ( 15 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XDRP = 20.5350 INCHES  
 LREF = 39.8490 INCHES YDRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZDRP = .0000 INCHES  
 SCALE = .0350 SCALE

ALPHAT = 2.0000 TRBINC = .9000  
 RUDRER = .0000 ELEVON = .0000  
 RUDFLR = .0000

## PARAMETRIC DATA

## SECTION ( 1 ) ORBITER BASE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.430	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1900	-.1490	-.1900	-.1350	-.1490	-.1550	-.1780	-.1620
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.310	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1460	-.1500	-.1510	-.1490	-.1360	-.1480	-.1520	-.1620
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.190	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1440	-.1480	-.1460	-.1360	-.1440	-.1540	-.1760	-.1620
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1430	-.1450	-.1440	-.1460	-.1350	-.1410	-.1510	-.1580
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.170	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1450	-.1420	-.1450	-.1320	-.1320	-.1470	-.1670	-.1510
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.290	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1420	-.1470	-.1450	-.1440	-.1340	-.1440	-.1470	-.1620
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.410	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1490	-.1480	-.1480	-.1320	-.1480	-.1460	-.1680	-.1530
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.540	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1460	-.1490	-.1460	-.1330	-.1490	-.1460	-.1650	-.1520
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.590	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1130	-.1170	-.1160	-.1170	-.1090	-.1180	-.1130	-.1240
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1130	-.1130	-.1160	-.1140	-.1180	-.1150	-.1170	-.1280

AMES 87-757 IAS ORA + S3 + T9 ORBITER BASE

(RBNCL17)

## SECTION ( 1) ORBITER BASE DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	BETAT ( 3) = -4.270	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.1140	-.1160	-.1160	-.1130	-.1160	-.1220	-.1310	-.1230
MACH ( 2) = 2.999	BETAT ( 4) = -2.110	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.1150	-.1130	-.1120	-.1110	-.1140	-.1190	-.1300	-.1210
MACH ( 2) = 2.999	BETAT ( 5) = 2.210	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.1090	-.1120	-.1110	-.1140	-.1120	-.1190	-.1290	-.1190
MACH ( 2) = 2.999	BETAT ( 6) = 4.370	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.1120	-.1140	-.1160	-.1110	-.1140	-.1190	-.1250	-.1210
MACH ( 2) = 2.999	BETAT ( 7) = 6.530	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.1070	-.1110	-.1140	-.1110	-.1060	-.1110	-.1260	-.1190
MACH ( 2) = 2.999	BETAT ( 8) = 8.690	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.1080	-.1120	-.1110	-.1120	-.1160	-.1120	-.1240	-.1190
MACH ( 3) = 3.502	BETAT ( 1) = -8.730	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.0790	-.0840	-.0820	-.0780	-.0840	-.0820	-.0820	-.0830
MACH ( 3) = 3.502	BETAT ( 2) = -6.540	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.0790	-.0810	-.0820	-.0770	-.0840	-.0810	-.0810	-.0820
MACH ( 3) = 3.502	BETAT ( 3) = -4.340	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.0770	-.0790	-.0800	-.0810	-.0810	-.0810	-.0810	-.0810
MACH ( 3) = 3.502	BETAT ( 4) = -2.140	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.0760	-.0790	-.0780	-.0760	-.0780	-.0790	-.0790	-.0810
MACH ( 3) = 3.502	BETAT ( 5) = 2.290	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.0770	-.0780	-.0770	-.0770	-.0770	-.0770	-.0770	-.0790
MACH ( 3) = 3.502	BETAT ( 6) = 4.460	TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
		A	.550	-.0780	-.0780	-.0780	-.0770	-.0770	-.0780	-.0780	-.0770



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AVES 07-707 1A9 ORZ + S<sup>3</sup> + T<sup>0</sup> 7BITER BASE

(RBNCLU7)

SECTION ( 1 ) ORBITER BASE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.542	BETAT ( 7 ) = 6.66U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.100U	-.100U	-.102U	-.101U	-.103U	-.102U	-.102U	-.102U
MACH ( 3 ) = 3.542	BETAT ( 8 ) = 6.89U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.177U	-.179U	-.179U	-.182U	-.179U	-.179U	-.179U	-.181U

AMES 87-757 IAS OZA + S3 + T9 ORBITER BASE

(RBNCS8) ( 10 MAY 75 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5350 INCHES  
 LREF = 39.8490 INCHES YMRP = .1620 INCHES  
 BREF = 39.8490 INCHES ZMRP = .1620 INCHES  
 SCALE = .0320 SCALE

ALPHAT = 4.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

PARAMETRIC DATA

SECTION ( 1 ) ORBITER BASE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1550	-.1570	-.1580	-.1570	-.1420	-.1550	-.1520	-.1790	-.1680
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1490	-.1520	-.1520	-.1390	-.1510	-.1530	-.1740	-.1620	
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.190	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1460	-.1480	-.1470	-.1460	-.1370	-.1450	-.1540	-.1730	-.1600
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1420	-.1450	-.1460	-.1440	-.1360	-.1430	-.1510	-.1710	-.1570
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.170	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1420	-.1450	-.1450	-.1390	-.1440	-.1470	-.1620	-.1530	
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.300	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1460	-.1510	-.1480	-.1460	-.1380	-.1470	-.1690	-.1650	
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1500	-.1520	-.1540	-.1530	-.1410	-.1510	-.1510	-.1750	-.1590
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.550	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1520	-.1540	-.1540	-.1530	-.1380	-.1540	-.1510	-.1690	-.1580
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.580	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1130	-.1150	-.1160	-.1170	-.1080	-.1160	-.1110	-.1250	-.1230
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1110	-.1150	-.1150	-.1110	-.1110	-.1150	-.1190	-.1270	-.1230

## AMES 07-707 IA9 O2A + S3 + T9 ORBITER BASE

(RBNC08)

## DEPENDENT VARIABLE CP

## SECTION ( 1) ORBITER BASE

MACH ( 2) = 2.999	BETAT ( 3) = -4.260	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1110	-.1120	-.1130	-.1140	-.1110	-.1140	-.1190	-.1210
MACH ( 2) = 2.999	BETAT ( 4) = -2.100	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1110	-.1120	-.1130	-.1110	-.1130	-.1170	-.1260	-.1210
MACH ( 2) = 2.999	BETAT ( 5) = 2.210	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1110	-.1130	-.1150	-.1140	-.1150	-.1140	-.1210	-.1180
MACH ( 2) = 2.999	BETAT ( 6) = 4.370	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1150	-.1180	-.1160	-.1150	-.1130	-.1150	-.1220	-.1220
MACH ( 2) = 2.999	BETAT ( 7) = 6.540	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1120	-.1140	-.1140	-.1140	-.1150	-.1140	-.1160	-.1210
MACH ( 2) = 2.999	BETAT ( 8) = 8.700	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1160	-.1190	-.1180	-.1170	-.1150	-.1180	-.1270	-.1220
MACH ( 3) = 3.502	BETAT ( 1) = -8.720	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1080	-.1030	-.1040	-.1040	-.1020	-.1030	-.1080	-.1080
MACH ( 3) = 3.502	BETAT ( 2) = -6.530	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0770	-.1080	-.1080	-.1080	-.1080	-.1070	-.1070	-.1080
MACH ( 3) = 3.502	BETAT ( 3) = -4.330	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0790	-.1030	-.1030	-.1030	-.1030	-.1070	-.1020	-.1030
MACH ( 3) = 3.502	BETAT ( 4) = -2.140	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0780	-.1060	-.1070	-.1070	-.1070	-.1070	-.1070	-.1080
MACH ( 3) = 3.502	BETAT ( 5) = 2.260	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1020	-.1020	-.1030	-.1020	-.1030	-.1020	-.1020	-.1040
MACH ( 3) = 3.502	BETAT ( 6) = 4.460	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1030	-.1050	-.1040	-.1050	-.1010	-.1010	-.1010	-.1050

DATE 18 SEP 73

TABULATED PRESSURE DATA - IASFC

PAGE 48U

AMES 87-757 IAS O2A + S3 + T9 ORBITTER BASE

(RENCUS)

SECTION ( 1 ) ORBITTER BASE DEPENDENT VARIABLE (F

MACH ( 3 ) = 3.542 BETAT ( 7 ) = 6.681

TAP NO	1.151J	2.151J	3.151J	4.151J	5.151J	6.151J	7.151J	8.151J	9.151J
A	-.182J	-.184J	-.184J	-.185J	-.182J	-.183J	-.183J	-.182J	-.183J

MACH ( 3 ) = 3.542 BETAT ( 8 ) = 6.418

TAP NO	1.151J	2.151J	3.151J	4.151J	5.151J	6.151J	7.151J	8.151J	9.151J
A	-.185J	-.185J	-.185J	-.184J	-.184J	-.182J	-.185J	-.185J	-.185J



DATE 18 SEP 73

TABULATED PRESSURE DATA - IA9C

PAGE 441

AWES 87-707 IA9 ORA + S3 + T9 ORBITER BASE

(RBINC9) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 90.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .10000 SCALE

ALPHAT = 6.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

## PARAMETRIC DATA

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -6.410	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1570	-.1600	-.1620	-.1450	-.1570	-.1510	-.1760	-.1650
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.290	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1530	-.1560	-.1580	-.1550	-.1420	-.1530	-.1770	-.1650
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.170	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1480	-.1520	-.1520	-.1440	-.1440	-.1470	-.1570	-.1680
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1410	-.1430	-.1440	-.1490	-.1350	-.1410	-.1470	-.1560
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1420	-.1460	-.1470	-.1470	-.1390	-.1440	-.1470	-.1620
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.300	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1470	-.1510	-.1520	-.1490	-.1400	-.1490	-.1510	-.1660
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.440	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1500	-.1510	-.1530	-.1520	-.1420	-.1530	-.1540	-.1710
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.570	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1540	-.1590	-.1560	-.1430	-.1430	-.1520	-.1560	-.1710
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -6.560	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1160	-.1190	-.1180	-.1170	-.1110	-.1190	-.1150	-.1260
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.400	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1160	-.1180	-.1170	-.1180	-.1120	-.1180	-.1140	-.1260

## AMES 07-707 IA9 ORA + S3 + T9 ORBITER BASE

(RBNCU9)

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.25U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.114U	-.118U	-.116U	-.113U	-.114U	-.118U	-.126U	-.123U
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.11U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.117U	-.115U	-.112U	-.118U	-.115U	-.116U	-.126U	-.121U
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.21U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.117U	-.115U	-.112U	-.118U	-.115U	-.113U	-.119U	-.113U
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.38U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.116U	-.117U	-.119U	-.121U	-.115U	-.119U	-.122U	-.128U
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.55U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.118U	-.118U	-.118U	-.112U	-.118U	-.119U	-.131U	-.122U
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.72U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.117U	-.119U	-.118U	-.112U	-.119U	-.116U	-.125U	-.123U
MACH ( 3 ) = 3.512	BETAT ( 1 ) = -8.71U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.185U	-.184U	-.184U	-.181U	-.184U	-.182U	-.182U	-.184U
MACH ( 3 ) = 3.512	BETAT ( 2 ) = -6.51U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.185U	-.187U	-.186U	-.186U	-.185U	-.184U	-.185U	-.186U
MACH ( 3 ) = 3.512	BETAT ( 3 ) = -4.32U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.181U	-.184U	-.184U	-.184U	-.183U	-.183U	-.182U	-.184U
MACH ( 3 ) = 3.512	BETAT ( 4 ) = -2.13U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.179U	-.181U	-.181U	-.179U	-.179U	-.178U	-.179U	-.182U
MACH ( 3 ) = 3.512	BETAT ( 5 ) = 2.28U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.179U	-.181U	-.181U	-.183U	-.183U	-.181U	-.181U	-.183U
MACH ( 3 ) = 3.512	BETAT ( 6 ) = 4.47U	TAP NO	1.1UU	2.1UU	3.1UU	4.1UU	5.1UU	6.1UU	7.1UU	8.1UU	9.1UU
		A	.1UU	-.181U	-.183U	-.184U	-.183U	-.182U	-.181U	-.183U	-.184U

AMES 87-757 1A9 ORZ + S3 + T9 ORBITER BASE

(RENCLOS)

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.5/2	BETAT ( 7 ) = 6.675	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.0795	-.0845	-.1040	-.1095	-.1020	-.1075	-.1025	-.1045
MACH ( 3 ) = 3.5/2	BETAT ( 8 ) = 6.885	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.0895	-.1065	-.1065	-.1095	-.1045	-.1095	-.1045	-.1095



DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

AMES 87-75, IAS O2A + S3 + T9 ORBITER BASE (RBANC10) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 58.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = 8.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUFLR = .0000

SECTION ( 1 ) ORBITER BASE DEPENDENT VARIABLE CP

MACH	BETAT	TAP NO	CP	TAP NO	CP	TAP NO	CP	TAP NO	CP	TAP NO	CP	TAP NO	CP	TAP NO	CP	TAP NO	CP	TAP NO	CP	
2.498	BETAT ( 1 ) = -8.380	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1590	-.1600	-.1600	-.1590	-.1470	-.1590	-.1500	-.1680	-.1670	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000
2.498	BETAT ( 2 ) = -6.270	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1490	-.1540	-.1540	-.1420	-.1510	-.1480	-.1690	-.1680	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
2.498	BETAT ( 3 ) = -4.170	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1440	-.1490	-.1490	-.1420	-.1490	-.1510	-.1720	-.1570	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
2.498	BETAT ( 4 ) = -2.060	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1450	-.1470	-.1470	-.1480	-.1410	-.1450	-.1530	-.1740	-.1560	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000
2.498	BETAT ( 5 ) = 2.180	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1440	-.1470	-.1480	-.1370	-.1460	-.1500	-.1620	-.1570	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
2.498	BETAT ( 6 ) = 4.320	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1510	-.1510	-.1510	-.1430	-.1510	-.1510	-.1660	-.1600	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
2.498	BETAT ( 7 ) = 6.450	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1590	-.1620	-.1590	-.1470	-.1590	-.1600	-.1750	-.1640	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
2.498	BETAT ( 8 ) = 8.580	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1570	-.1620	-.1600	-.1440	-.1600	-.1600	-.1770	-.1630	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
2.999	BETAT ( 1 ) = -8.540	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1190	-.1210	-.1220	-.1150	-.1200	-.1170	-.1250	-.1290	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
2.999	BETAT ( 2 ) = -6.390	1	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1160	-.1190	-.1170	-.1120	-.1140	-.1230	-.1230	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	



(REMCID)

AXES 87-707 IAS O2A + S3 + T9 ORBITER BASE

SECTION ( 1 ) ORBITER BASE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.952	BETAT ( 7 ) = 0.695	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.5010	-.5050	-.5020	-.5000	-.50790	-.5010	-.5030	-.5030
MACH ( 3 ) = 3.952	BETAT ( 8 ) = 0.950	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.5030	-.5060	-.5040	-.5020	-.5030	-.5030	-.5030	-.5030

AMES 87-757 1A9 ORA + S3 + T9 ORBITER BASE

(RBNK11) ( 10 MAY 73 )

## REFERENCE DATA

XREF = 2.4210 50.FT. XMRP = 28.5350 INCHES  
 YREF = 39.8490 INCHES YMRP = 5.5550 INCHES  
 ZREF = 39.8490 INCHES ZMRP = 5.5550 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = -8.5000 ORBINC = .5000  
 RUDDER = -15.5000 ELEVON = .5000  
 RUDFLR = .0000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE OF

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.390	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1190	-.1220	-.1240	-.1240	-.1150	-.1250	-.1410	-.1370
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.270	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1210	-.1250	-.1280	-.1260	-.1150	-.1280	-.1390	-.1420
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.160	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1170	-.1230	-.1240	-.1220	-.1140	-.1190	-.1340	-.1380
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .560	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1180	-.1230	-.1230	-.1210	-.1210	-.1210	-.1320	-.1390
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.330	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1210	-.1230	-.1190	-.1220	-.1150	-.1210	-.1330	-.1340
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 9.460	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1210	-.1270	-.1230	-.1240	-.1130	-.1230	-.1310	-.1390
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.670	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1230	-.1280	-.1270	-.1260	-.1160	-.1260	-.1310	-.1370
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.560	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1080	-.1120	-.1030	-.1030	-.1090	-.1070	-.1190	-.1140
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.410	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1090	-.1060	-.1090	-.1090	-.1080	-.1020	-.1030	-.1220
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.260	TAP NO	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500
		A	.500	-.1070	-.1140	-.1140	-.1070	-.1070	-.1140	-.1160	-.1230

## AMES 07-707 IAS OCA + S3 + T9 ORBITER BASE

(RBNCL1)

SECTION ( 1 )	ORBITER BASE	DEPENDENT VARIABLE CP										
MACH ( 2 ) = 2.999	BETAT ( 4 ) = .595		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5940	-.5950	-.5970	-.5960	-.5980	-.5970	-.5930	-.5970
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.405		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5940	-.5960	-.5960	-.5980	-.5960	-.5950	-.5950	-.5970
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.595		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5960	-.5960	-.5970	-.5980	-.5980	-.5960	-.5960	-.5950
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 8.750		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5960	-.5960	-.5960	-.5960	-.5960	-.5960	-.5960	-.5960
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.710		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5750	-.5800	-.5820	-.5820	-.5820	-.5820	-.5840	-.5840
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.520		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5780	-.5800	-.5830	-.5810	-.5790	-.5830	-.5820	-.5830
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.330		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5750	-.5760	-.5780	-.5770	-.5770	-.5790	-.5830	-.5830
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .590		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5780	-.5790	-.5810	-.5810	-.5810	-.5780	-.5850	-.5870
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.470		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5770	-.5770	-.5800	-.5800	-.5800	-.5780	-.5840	-.5870
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.690		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5790	-.5800	-.5820	-.5820	-.5810	-.5790	-.5840	-.5860
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.950		TAP NO	1.550	2.550	3.550	4.550	5.550	6.550	7.550	8.550	9.550
			A	.550	-.5810	-.5830	-.5840	-.5850	-.5850	-.5830	5870	5870



AVES 07-707 IAS OEA + S3 + T9 ORBITER BASE

REFERENCE DATA  
 SREF = 2.4210 SQ.FT. XMRP = 20.5390 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0392 SCALE

SECTION ( 1 ) ORBITER BASE  
 MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.420  
 MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.300  
 MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180  
 MACH ( 1 ) = 2.498 BETAT ( 4 ) = .060  
 MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310  
 MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.430  
 MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.560  
 MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.580  
 MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.430  
 MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.270

DEPENDENT VARIABLE CP

TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1310	-.1390	-.1350	-.1390	-.1310	-.1460	-.1700	-.1490
TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1290	-.1330	-.1320	-.1310	-.1330	-.1440	-.1700	-.1460
TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1280	-.1290	-.1310	-.1300	-.1220	-.1300	-.1450	-.1450
TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1210	-.1260	-.1260	-.1270	-.1180	-.1210	-.1330	-.1420
TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1290	-.1310	-.1300	-.1310	-.1210	-.1280	-.1370	-.1430
TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1310	-.1340	-.1330	-.1340	-.1290	-.1330	-.1360	-.1480
TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1270	-.1300	-.1310	-.1310	-.1180	-.1290	-.1330	-.1410
TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1100	-.1030	-.1060	-.1030	-.0990	-.1100	-.1220	-.1110
TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1140	-.1140	-.1060	-.1050	-.1120	-.1110	-.1250	-.1150
TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
A	.000	-.1010	-.1090	-.1080	-.1050	-.1010	-.1060	-.1110	-.1260

PARAMETRIC DATA

ALPHAT = -4.000 ORBINC = .500  
 RUDDER = -15.000 ELEVON = .000  
 RUDFLR = .000

## AMES 87-707 IAS OEA + S3 + T9 ORBITER BASE

(RBNC12)

## SECTION ( 1) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	BETAT ( 4) = .050	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0980	-.0990	-.1020	-.0990	-.1020	-.1070	-.1110
MACH ( 2) = 2.999	BETAT ( 5) = 4.380	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1000	-.1000	-.1010	-.0990	-.1000	-.1110	-.1080
MACH ( 2) = 2.999	BETAT ( 6) = 6.930	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0990	-.1000	-.0990	-.0970	-.1010	-.1060	-.1070
MACH ( 2) = 2.999	BETAT ( 7) = 8.710	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0990	-.1030	-.1020	-.0990	-.0990	-.1040	-.1070
MACH ( 3) = 3.502	BETAT ( 1) = -8.740	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0800	-.0840	-.0860	-.0840	-.0890	-.0860	-.0890
MACH ( 3) = 3.502	BETAT ( 2) = -6.540	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0840	-.0860	-.0860	-.0840	-.0880	-.0860	-.0910
MACH ( 3) = 3.502	BETAT ( 3) = -4.390	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0840	-.0860	-.0860	-.0860	-.0860	-.0860	-.0860
MACH ( 3) = 3.502	BETAT ( 4) = .090	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0760	-.0760	-.0770	-.0800	-.0790	-.0840	-.0840
MACH ( 3) = 3.502	BETAT ( 5) = 4.460	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0790	-.0790	-.0810	-.0830	-.0830	-.0840	-.0890
MACH ( 3) = 3.502	BETAT ( 6) = 6.660	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0610	-.0620	-.0640	-.0620	-.0620	-.0640	-.0670
MACH ( 3) = 3.502	BETAT ( 7) = 8.860	TAP NO 1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0640	-.0660	-.0660	-.0690	-.0670	-.0660	-.0710

AMES 67-757 IAG ORA + S3 + T9 ORBITER BASE

(RBNC13) ( 15 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .00000 SCALE

ALPHAT = .0000 ORBINC = .0000  
 RUDDER = -15.0000 ELEVON = .0000  
 RUDDFLR = .0000

## PARAMETRIC DATA

## SECTION ( 1) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1380	-.1410	-.1380	-.1260	-.1410	-.1480	-.1700	-.1560
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1420	-.1430	-.1420	-.1310	-.1410	-.1520	-.1730	-.1560
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1340	-.1360	-.1360	-.1270	-.1350	-.1460	-.1650	-.1480
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1340	-.1360	-.1390	-.1290	-.1340	-.1450	-.1580	-.1540
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.300	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1340	-.1360	-.1340	-.1230	-.1390	-.1390	-.1550	-.1450
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1340	-.1360	-.1370	-.1220	-.1370	-.1390	-.1590	-.1430
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.540	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1350	-.1390	-.1390	-.1250	-.1390	-.1370	-.1640	-.1460
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.580	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1050	-.1090	-.1070	-.1000	-.1090	-.1170	-.1220	-.1140
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.420	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1120	-.1140	-.1170	-.1060	-.1120	-.1190	-.1170	-.1210
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.260	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.0000	-.1140	-.1140	-.1140	-.1040	-.1140	-.1160	-.1210	-.1110

## AMES 67-707 IAS O2A + S3 + T9 ORBITER BASE

(RBNC13)

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 4 ) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0980	-.1010	-.1040	-.1030	-.1030	-.1090	-.1210	-.1130
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.360	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1050	-.1040	-.1050	-.1030	-.1050	-.1120	-.1180	-.1110
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.540	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1010	-.1020	-.1040	-.1030	-.0980	-.1020	-.1070	-.1180
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 8.690	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0980	-.1010	-.1010	-.0970	-.1010	-.1030	-.1160	-.1160
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.730	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0860	-.0880	-.0920	-.0880	-.0870	-.0930	-.0930	-.0980
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.550	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0830	-.0850	-.0870	-.0880	-.0840	-.0820	-.0860	-.0970
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.750	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0840	-.0870	-.0870	-.0890	-.0870	-.0880	-.0880	-.090
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .050	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0790	-.0820	-.0830	-.0820	-.0830	-.0830	-.0850	-.0850
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.450	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0850	-.0850	-.0850	-.0860	-.0850	-.0850	-.0840	-.0910
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.650	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0860	-.0880	-.0910	-.0870	-.0870	-.0910	-.0970	-.0930
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.840	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0860	-.0910	-.0870	-.0870	-.0850	-.0890	-.0890	-.0910





DATE 10 SEP 73

TABULATED PRESSURE DATA - IASC

PAGE 455

AMES 87 707 IAG ORA + S3 + T9 ORBITER BASE

(RBNC15) ( 11 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 YREF = 39.8490 INCHES YMRP = .0000 INCHES  
 ZREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

ALPHAT = 6.0000 ORBINC = .5000  
 RUDDER = -15.0000 ELEVON = .0000  
 RUDFLR = .0000

## PARAMETRIC DATA

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.395	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1530	-.1580	-.1570	-.1580	-.1450	-.1550	-.1720	-.1650
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.280	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1470	-.1480	-.1480	-.1390	-.1480	-.1480	-.1680	-.1580
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.160	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1450	-.1470	-.1490	-.1480	-.1380	-.1460	-.1540	-.1720
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1370	-.1380	-.1380	-.1320	-.1370	-.1420	-.1590	-.1510
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.310	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1390	-.1420	-.1420	-.1410	-.1310	-.1420	-.1410	-.1580
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.440	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1460	-.1480	-.1480	-.1460	-.1350	-.1480	-.1480	-.1660
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.570	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1540	-.1560	-.1560	-.1550	-.1410	-.1570	-.1530	-.1720
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.550	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1130	-.1150	-.1130	-.1130	-.1080	-.1150	-.1120	-.1230
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.400	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1180	-.1150	-.1110	-.1110	-.1090	-.1090	-.1070	-.1180
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.240	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1070	-.1120	-.1110	-.1100	-.1060	-.1100	-.1120	-.1240





AVES 07-707 IAG OEA + 93 + T9 ORBITER BASE

(RBNC16) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4225 50. FT. XORP = 28.5300 INCHES  
 LREF = 33.8430 INCHES YORP = 1.0000 INCHES  
 BREF = 39.8430 INCHES ZORP = 1.0000 INCHES  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHAT = 0.1000 ORBINC = .5000  
 RUDDER = -15.1000 ELEVON = .5000  
 RUDDLR = .5000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH	( 1 )	2.498	BETAT ( 1 )	= -0.375	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1520	-.1550	-.1580	-.1550	-.1430	-.1460	-.1620	
MACH	( 1 )	2.498	BETAT ( 2 )	= -5.275	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1480	-.1480	-.1480	-.1390	-.1470	-.1450	-.1660	-.1560
MACH	( 1 )	2.498	BETAT ( 3 )	= -4.160	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1410	-.1420	-.1440	-.1410	-.1340	-.1470	-.1660	-.1510
MACH	( 1 )	2.498	BETAT ( 4 )	= .160	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1410	-.1430	-.1430	-.1420	-.1350	-.1420	-.1450	-.1570
MACH	( 1 )	2.498	BETAT ( 5 )	= 4.330	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1430	-.1440	-.1440	-.1440	-.1350	-.1450	-.1620	-.1540
MACH	( 1 )	2.498	BETAT ( 6 )	= 6.460	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1520	-.1520	-.1520	-.1410	-.1510	-.1520	-.1710	-.1570
MACH	( 1 )	2.498	BETAT ( 7 )	= 0.600	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1530	-.1550	-.1550	-.1430	-.1570	-.1550	-.1750	-.1600
MACH	( 2 )	2.999	BETAT ( 1 )	= -0.930	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1140	-.1130	-.1140	-.1060	-.1140	-.1120	-.1190	-.1190
MACH	( 2 )	2.999	BETAT ( 2 )	= -5.360	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1140	-.1150	-.1160	-.1160	-.1150	-.1130	-.1230	-.1220
MACH	( 2 )	2.999	BETAT ( 3 )	= -4.220	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
					A	.000	-.1110	-.1110	-.1110	-.1060	-.1110	-.1120	-.1240	-.1110



TABLATED PRESSURE DATA - IA9C

(BRNC17) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4215 50.FT. XRP = 20.5355 INCHES  
 YREF = 39.8495 INCHES YRP = .5555 INCHES  
 ZREF = 39.8495 INCHES ZRP = .5555 INCHES  
 SCALE = .5555 SCALE

ALPHAT = -8.5555 OFFBINC = .5555  
 FUDDER = -15.5555 ELEVON = .5555  
 RUDPLR = .5555

PARAMETRIC DATA

DEPENDENT VARIABLE CP

SECTION ( 1 ) ORBITER BASE	MACH ( 1 )	BETAT ( 1 )	TAP NO	1.5555	2.5555	3.5555	4.5555	5.5555	6.5555	7.5555	8.5555	9.5555
MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.395	A	.5555	-.1245	-.1275	-.1265	-.1185	-.1165	-.1455	-.1455	-.1675	-.1485
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.285	A	.5555	-.1195	-.1255	-.1235	-.1145	-.1125	-.1375	-.1375	-.1625	-.1355
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.185	A	.5555	-.1175	-.1255	-.1235	-.1135	-.1115	-.1325	-.1325	-.1595	-.1345
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .565	A	.5555	-.1165	-.1255	-.1235	-.1175	-.1155	-.1365	-.1365	-.1635	-.1385
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.335	A	.5555	-.1175	-.1255	-.1235	-.1175	-.1155	-.1365	-.1365	-.1635	-.1385
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.475	A	.5555	-.1215	-.1295	-.1275	-.1195	-.1175	-.1385	-.1385	-.1655	-.1405
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.625	A	.5555	-.1235	-.1315	-.1295	-.1215	-.1195	-.1405	-.1405	-.1675	-.1425
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.545	A	.5555	-.1225	-.1305	-.1285	-.1205	-.1185	-.1395	-.1395	-.1665	-.1435
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.285	A	.5555	-.1225	-.1305	-.1285	-.1205	-.1185	-.1395	-.1395	-.1665	-.1435
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .565	A	.5555	-.1245	-.1325	-.1305	-.1225	-.1205	-.1415	-.1415	-.1685	-.1455

## AMES 87-757 1A9 ORA + S3 + T9 ORBITER BASE

(RBNK17)

SECTION ( 1 )	ORBITER BASE	DEPENDENT VARIABLE CP
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.415	TAP NO 1.550 2.150 3.150 4.150 5.150 6.150 7.150 8.150 9.150 A .550 -.5920 -.5940 -.5960 -.5980 -.5995 -.5995 -.5995 -.5995
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 6.780	TAP NO 1.550 2.150 3.150 4.150 5.150 6.150 7.150 8.150 9.150 A .550 -.5935 -.5940 -.5955 -.5970 -.5985 -.5985 -.5985 -.5985
MACH ( 3 ) = 3.562	BETAT ( 1 ) = -8.750	TAP NO 1.550 2.150 3.150 4.150 5.150 6.150 7.150 8.150 9.150 A .550 -.5765 -.5835 -.5855 -.5875 -.5885 -.5885 -.5885 -.5885
MACH ( 3 ) = 3.562	BETAT ( 2 ) = -6.515	TAP NO 2.150 3.150 4.150 5.150 6.150 7.150 8.150 9.150 A .550 -.5725 -.5750 -.5755 -.5765 -.5770 -.5770 -.5770 -.5770
MACH ( 3 ) = 3.562	BETAT ( 3 ) = -4.325	TAP NO 1.550 2.150 3.150 4.150 5.150 6.150 7.150 8.150 9.150 A .550 -.5745 -.5770 -.5775 -.5785 -.5790 -.5790 -.5790 -.5790
MACH ( 3 ) = 3.562	BETAT ( 4 ) = .120	TAP NO 2.150 3.150 4.150 5.150 6.150 7.150 8.150 9.150 A .550 -.5745 -.5770 -.5775 -.5785 -.5790 -.5790 -.5790 -.5790
MACH ( 3 ) = 3.562	BETAT ( 5 ) = 4.490	TAP NO 1.550 2.150 3.150 4.150 5.150 6.150 7.150 8.150 9.150 A .550 -.5715 -.5720 -.5740 -.5760 -.5775 -.5775 -.5775 -.5775
MACH ( 3 ) = 3.562	BETAT ( 6 ) = 6.750	TAP NO 1.550 2.150 3.150 4.150 5.150 6.150 7.150 8.150 9.150 A .550 -.5715 -.5725 -.5735 -.5755 -.5770 -.5770 -.5770 -.5770
MACH ( 3 ) = 3.562	BETAT ( 7 ) = 6.915	TAP NO 1.550 2.150 3.150 4.150 5.150 6.150 7.150 8.150 9.150 A .550 -.5745 -.5755 -.5755 -.5765 -.5775 -.5775 -.5775 -.5775

AMES 87-707 IAS OZA + S3 + T9 ORBITER BASE

(RBKNC10) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4215 90.FT. XMRP = 28.5350 INCHES  
 LREF = 39.8495 INCHES YMRP = .5000 INCHES  
 SREF = 39.8495 INCHES ZMRP = .5000 INCHES  
 SCALE = .0350 SCALE

## PARAMETRIC DATA

ALPHAT = -4.5000 ORBINC = .3000  
 RUDDER = -10.0000 ELEVON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -6.480	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1280	-.1350	-.1310	-.1290	-.1160	-.1270	-.1430	-.1440
MACH ( 1 ) = 2.498 <td>BETAT ( 2 ) = -6.300</td> <td>TAP NO</td> <td>1.000</td> <td>2.000</td> <td>3.000</td> <td>4.000</td> <td>5.000</td> <td>6.000</td> <td>7.000</td> <td>8.000</td> <td>9.000</td>	BETAT ( 2 ) = -6.300	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1280	-.1300	-.1310	-.1210	-.1310	-.1430	-.1660	-.1460
MACH ( 1 ) = 2.499 <td>BETAT ( 3 ) = -4.180</td> <td>TAP NO</td> <td>1.000</td> <td>2.000</td> <td>3.000</td> <td>4.000</td> <td>5.000</td> <td>6.000</td> <td>7.000</td> <td>8.000</td> <td>9.000</td>	BETAT ( 3 ) = -4.180	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1300	-.1300	-.1330	-.1240	-.1320	-.1430	-.1670	-.1460
MACH ( 1 ) = 2.499 <td>BETAT ( 4 ) = .060</td> <td>TAP NO</td> <td>1.000</td> <td>2.000</td> <td>3.000</td> <td>4.000</td> <td>5.000</td> <td>6.000</td> <td>7.000</td> <td>8.000</td> <td>9.000</td>	BETAT ( 4 ) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1220	-.1290	-.1270	-.1290	-.1210	-.1290	-.1340	-.1510
MACH ( 1 ) = 2.498 <td>BETAT ( 5 ) = 4.310</td> <td>TAP NO</td> <td>1.000</td> <td>2.000</td> <td>3.000</td> <td>4.000</td> <td>5.000</td> <td>6.000</td> <td>7.000</td> <td>8.000</td> <td>9.000</td>	BETAT ( 5 ) = 4.310	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1290	-.1280	-.1280	-.1190	-.1260	-.1340	-.1490	-.1360
MACH ( 1 ) = 2.498 <td>BETAT ( 6 ) = 6.430</td> <td>TAP NO</td> <td>1.000</td> <td>2.000</td> <td>3.000</td> <td>4.000</td> <td>5.000</td> <td>6.000</td> <td>7.000</td> <td>8.000</td> <td>9.000</td>	BETAT ( 6 ) = 6.430	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1290	-.1300	-.1280	-.1200	-.1200	-.1310	-.1330	-.1560
MACH ( 1 ) = 2.498 <td>BETAT ( 7 ) = 8.560</td> <td>TAP NO</td> <td>1.000</td> <td>2.000</td> <td>3.000</td> <td>4.000</td> <td>5.000</td> <td>6.000</td> <td>7.000</td> <td>8.000</td> <td>9.000</td>	BETAT ( 7 ) = 8.560	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1270	-.1320	-.1300	-.1290	-.1190	-.1290	-.1330	-.1610
MACH ( 2 ) = 2.999 <td>BETAT ( 1 ) = -6.580</td> <td>TAP NO</td> <td>1.000</td> <td>2.000</td> <td>3.000</td> <td>4.000</td> <td>5.000</td> <td>6.000</td> <td>7.000</td> <td>8.000</td> <td>9.000</td>	BETAT ( 1 ) = -6.580	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1090	-.1000	-.1030	-.1010	-.1040	-.1090	-.1160	-.1110
MACH ( 2 ) = 2.999 <td>BETAT ( 2 ) = -4.260</td> <td>TAP NO</td> <td>1.000</td> <td>2.000</td> <td>3.000</td> <td>4.000</td> <td>5.000</td> <td>6.000</td> <td>7.000</td> <td>8.000</td> <td>9.000</td>	BETAT ( 2 ) = -4.260	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1080	-.1140	-.1120	-.1090	-.1090	-.1090	-.1170	-.1230
MACH ( 2 ) = 2.999 <td>BETAT ( 3 ) = .060</td> <td>TAP NO</td> <td>1.000</td> <td>2.000</td> <td>3.000</td> <td>4.000</td> <td>5.000</td> <td>6.000</td> <td>7.000</td> <td>8.000</td> <td>9.000</td>	BETAT ( 3 ) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1060	-.1090	-.1100	-.1080	-.1080	-.1110	-.1160	-.1210

(RBNK18)

AMES 07-707 IAS ORA + S3 + T9 ORBITER BASE

SECTION ( 1 )	ORBITER BASE	DEPENDENT VARIABLE CP
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.399	TAP NO 1.550 2.550 3.550 4.550 5.550 6.550 7.550 8.550 9.550
		A .550 -.590 -.550 -.550 -.550 -.590 -.550 -.550 -.550
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 0.720	TAP NO 1.550 2.550 3.550 4.550 5.550 6.550 7.550 8.550 9.550
		A .550 -.590 -.550 -.550 -.550 -.590 -.550 -.550 -.550
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -0.730	TAP NO 1.550 2.550 3.550 4.550 5.550 6.550 7.550 8.550 9.550
		A .550 -.590 -.550 -.550 -.550 -.590 -.550 -.550 -.550
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -0.530	TAP NO 1.550 2.550 3.550 4.550 5.550 6.550 7.550 8.550 9.550
		A .550 -.590 -.550 -.550 -.550 -.590 -.550 -.550 -.550
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.330	TAP NO 1.550 2.550 3.550 4.550 5.550 6.550 7.550 8.550 9.550
		A .550 -.590 -.550 -.550 -.550 -.590 -.550 -.550 -.550
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .580	TAP NO 1.550 2.550 3.550 4.550 5.550 6.550 7.550 8.550 9.550
		A .550 -.590 -.550 -.550 -.550 -.590 -.550 -.550 -.550
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.470	TAP NO 1.550 2.550 3.550 4.550 5.550 6.550 7.550 8.550 9.550
		A .550 -.590 -.550 -.550 -.550 -.590 -.550 -.550 -.550
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 0.570	TAP NO 1.550 2.550 3.550 4.550 5.550 6.550 7.550 8.550 9.550
		A .550 -.590 -.550 -.550 -.550 -.590 -.550 -.550 -.550
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 0.070	TAP NO 1.550 2.550 3.550 4.550 5.550 6.550 7.550 8.550 9.550
		A .550 -.590 -.550 -.550 -.550 -.590 -.550 -.550 -.550

## AMES 87-707 IAG O2A + S3 + T9 ORBITER BASE

(RBNC19) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = .0000 ORBINC = .5000  
 RUDDER = -10.0000 ELEVON = .0000  
 RUOFLR = .0000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.430	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1370	-.1390	-.1360	-.1370	-.1220	-.1390	-.1470	-.1520
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.310	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1380	-.1370	-.1400	-.1390	-.1240	-.1360	-.1470	-.1520
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.180	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1320	-.1360	-.1370	-.1370	-.1260	-.1370	-.1430	-.1500
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1320	-.1370	-.1360	-.1370	-.1290	-.1340	-.1430	-.1500
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.300	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1350	-.1360	-.1400	-.1380	-.1280	-.1370	-.1410	-.1480
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.430	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1330	-.1360	-.1370	-.1350	-.1230	-.1350	-.1360	-.1430
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.550	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1350	-.1360	-.1370	-.1350	-.1220	-.1360	-.1360	-.1430
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.580	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1010	-.1030	-.1060	-.1040	-.0980	-.1080	-.1040	-.1120
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.260	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1120	-.1030	-.1060	-.1060	-.1060	-.1060	-.1080	-.1120
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0990	-.1010	-.1020	-.1020	-.1010	-.1020	-.1020	-.1130

## AVES 07-707 IAS ORA + S3 + T9 ORBITER BASE

(RDNCR19)

SECTION ( 1 )	ORBITER BASE	DEPENDENT VARIABLE	CP
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.380	TAP NO 1.000 2.000 3.000 4.000 5.000 6.000 7.000 8.000 9.000	9.000
		A .000 -.1000 -.1000 -.1000 -.1000 -.1000 -.1000 -.1000 -.1000	-.1120
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 6.710	TAP NO 1.000 2.000 3.000 4.000 5.000 6.000 7.000 8.000 9.000	9.000
		A .000 -.1000 -.1000 -.1000 -.1000 -.1000 -.1000 -.1000 -.1000	-.1180
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -6.740	TAP NO 1.000 2.000 3.000 4.000 5.000 6.000 7.000 8.000 9.000	9.000
		A .000 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800	-.0910
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.540	TAP NO 1.000 2.000 3.000 4.000 5.000 6.000 7.000 8.000 9.000	9.000
		A .000 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800	-.0850
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.340	TAP NO 1.000 2.000 3.000 4.000 5.000 6.000 7.000 8.000 9.000	9.000
		A .000 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800	-.0850
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .060	TAP NO 1.000 2.000 3.000 4.000 5.000 6.000 7.000 8.000 9.000	9.000
		A .000 -.0770 -.0770 -.0770 -.0770 -.0770 -.0770 -.0770 -.0770	-.0820
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.460	TAP NO 1.000 2.000 3.000 4.000 5.000 6.000 7.000 8.000 9.000	9.000
		A .000 -.0820 -.0820 -.0820 -.0820 -.0820 -.0820 -.0820 -.0820	-.0890
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.660	TAP NO 1.000 2.000 3.000 4.000 5.000 6.000 7.000 8.000 9.000	9.000
		A .000 -.0810 -.0810 -.0810 -.0810 -.0810 -.0810 -.0810 -.0810	-.0840
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.860	TAP NO 1.000 2.000 3.000 4.000 5.000 6.000 7.000 8.000 9.000	9.000
		A .000 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800 -.0800	-.0850



AMES 87-707 IAG ORA + S3 + T9 ORBITER BASE

(RBNC2U) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 50. FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = 0.0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = 0.0000 INCHES  
 SCALE = 0.0000 SCALE

## PARAMETRIC DATA

ALPHAT = 4.0000 ORBINC = 0.5000  
 RUDDER = -10.0000 ELECON = 0.0000  
 RUDDFLR = 0.0000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -0.410	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1450	-.1670	-.1950	-.1480	-.1340	-.1470	-.1450	-.1700	-.1600
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.290	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1410	-.1420	-.1440	-.1290	-.1410	-.1440	-.1660	-.1540	
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.170	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1390	-.1390	-.1410	-.1310	-.1370	-.1470	-.1640	-.1520	
MACH ( 1 ) = 2.499	BETAT ( 4 ) = 0.060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1340	-.1370	-.1380	-.1360	-.1250	-.1350	-.1420	-.1560	-.1510
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.310	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1360	-.1400	-.1410	-.1400	-.1390	-.1410	-.1450	-.1540	-.1480
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.430	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1430	-.1460	-.1470	-.1440	-.1310	-.1440	-.1420	-.1630	-.1550
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.560	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1460	-.1510	-.1480	-.1490	-.1330	-.1480	-.1490	-.1630	-.1540
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.570	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1110	-.1110	-.1120	-.1130	-.1060	-.1140	-.1180	-.1210	-.1190
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.290	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1070	-.1100	-.1100	-.1080	-.1060	-.1140	-.1140	-.1240	-.1180
MACH ( 2 ) = 2.999	BETAT ( 3 ) = 0.060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	
		A	.000	-.1030	-.1070	-.1060	-.1040	-.1040	-.1170	-.1170	-.1210	-.1130

## AMES 87-707 IAS OEA + S3 + T9 ORBITER BASE (RBNC20)

## SECTION ( 1) ORBITER BASE DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	BETAT ( 4) = 4.390	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0070	-.0070	-.0090	-.0100	-.0100	-.0110	-.0110	-.0150
MACH ( 2) = 2.999	BETAT ( 5) = 8.720	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0110	-.0130	-.0130	-.0110	-.0080	-.0120	-.0120	-.0160
MACH ( 3) = 3.502	BETAT ( 1) = -6.720	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0040	-.0050	-.0050	-.0050	-.0010	-.0040	-.0050	-.0090
MACH ( 3) = 3.502	BETAT ( 2) = -6.530	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0020	-.0020	-.0060	-.0050	-.0020	-.0070	-.0050	-.0090
MACH ( 3) = 3.502	BETAT ( 3) = -4.330	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0020	-.0030	-.0050	-.0050	-.0050	-.0050	-.0020	-.0090
MACH ( 3) = 3.502	BETAT ( 4) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0070	-.0070	-.0080	-.0080	-.0070	-.0070	-.0030	-.0090
MACH ( 3) = 3.502	BETAT ( 5) = 4.460	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0040	-.0050	-.0060	-.0060	-.0050	-.0050	-.0010	-.0020
MACH ( 3) = 3.502	BETAT ( 6) = 6.670	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0040	-.0050	-.0070	-.0050	-.0040	-.0060	-.0060	-.0090
MACH ( 3) = 3.502	BETAT ( 7) = 8.870	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0040	-.0060	-.0050	-.0050	-.0020	-.0070	-.0060	-.0080

AMES 87-707 IAS OEA + S3 + T9 ORBITER BASE

(RBNC21) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = 6.000 ORBINC = .500  
 RUDDER = -10.000 ELEVON = .000  
 RUDFLR = .000

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.390	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1530	-.1530	-.1520	-.1420	-.1520	-.1490	-.1710	-.1620
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.280	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1490	-.1480	-.1500	-.1400	-.1470	-.1510	-.1690	-.1590
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.170	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1420	-.1450	-.1460	-.1440	-.1360	-.1440	-.1670	-.1550
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1390	-.1410	-.1410	-.1410	-.1310	-.1410	-.1440	-.1530
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.310	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1420	-.1450	-.1450	-.1460	-.1380	-.1460	-.1610	-.1540
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.440	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1440	-.1460	-.1460	-.1350	-.1470	-.1460	-.1640	-.1530
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.570	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1520	-.1550	-.1540	-.1520	-.1390	-.1520	-.1680	-.1600
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.550	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1130	-.1160	-.1170	-.1150	-.1080	-.1150	-.1230	-.1220
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.240	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1100	-.1130	-.1110	-.1110	-.1060	-.1100	-.1250	-.1180
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1030	-.1070	-.1070	-.1040	-.1070	-.1100	-.1200	-.1150

## AMES 07-707 IA9 OR2 + S3 + T9 ORBITER BASE

(RBMC21)

## SECTION ( 1 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.400	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1080	-.1100	-.1090	-.1090	-.1110	-.1120	-.1120	-.1130
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 6.750	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1100	-.1120	-.1120	-.1090	-.1130	-.1110	-.1110	-.1120
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -6.710	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0840	-.0860	-.0850	-.0850	-.0820	-.0840	-.0840	-.0890
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.510	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0830	-.0840	-.0820	-.0830	-.0820	-.0830	-.0830	-.0850
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.320	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0780	-.0820	-.0830	-.0820	-.0810	-.0810	-.0810	-.0850
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .160	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0830	-.0850	-.0830	-.0840	-.0830	-.0830	-.0860	-.0870
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.470	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0850	-.0880	-.0890	-.0860	-.0850	-.0880	-.0890	-.0920
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.670	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0820	-.0840	-.0840	-.0840	-.0820	-.0840	-.0850	-.0870
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.890	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0860	-.0880	-.0860	-.0860	-.0850	-.0840	-.0840	-.0890

AMES 97-707 IAS ORA + 93 + T9 ORBITER BASE

(RBNC22) ( 15 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.9300 INCHES  
 .LREF = 39.8490 INCHES XMRP = .0000 INCHES  
 SREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

ALPHAT = 0.0000 OFBINC = .9000  
 PUDDER = -10.0000 ELEVON = .0000  
 PUDDLP = .0000

PARAMETRIC DATA

SECTION ( 1 ) ORBITER BASE

DEPENDENT VARIABLE CP

MACH ( 1 )	BETA* ( 1 )	TAP NO	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
MACH ( 1 )	2.499	BETA* ( 1 )	-9.370								
		A	.000	-.1510	-.1920	-.1510	-.1420	-.1510	-.1460	-.1600	-.1580
MACH ( 1 )	2.499	BETA* ( 2 )	-6.260								
		A	.000	-.1900	-.1530	-.1510	-.1490	-.1610	-.1490	-.1700	-.1570
MACH ( 1 )	2.499	BETA* ( 3 )	-4.150								
		A	.000	-.1420	-.1450	-.1470	-.1470	-.1390	-.1440	-.1490	-.1540
MACH ( 1 )	2.499	BETA* ( 4 )	.060								
		A	.000	-.1430	-.1490	-.1450	-.1450	-.1390	-.1440	-.1490	-.1560
MACH ( 1 )	2.499	BETA* ( 5 )	4.330								
		A	.000	-.1400	-.1430	-.1440	-.1450	-.1390	-.1450	-.1460	-.1540
MACH ( 1 )	2.499	BETA* ( 6 )	6.460								
		A	.000	-.1450	-.1500	-.1470	-.1450	-.1340	-.1460	-.1490	-.1540
MACH ( 1 )	2.499	BETA* ( 7 )	9.600								
		A	.000	-.1510	-.1540	-.1520	-.1530	-.1380	-.1530	-.1530	-.1560
MACH ( 2 )	2.999	BETA* ( 1 )	-8.530								
		A	.000	-.1190	-.1130	-.1190	-.1090	-.1150	-.1190	-.1190	-.1190
MACH ( 2 )	2.999	BETA* ( 2 )	-4.230								
		A	.000	-.1090	-.1120	-.1110	-.1110	-.1090	-.1130	-.1230	-.1170
MACH ( 2 )	2.999	BETA* ( 3 )	.050								
		A	.000	-.1120	-.1110	-.1090	-.1090	-.1160	-.1120	-.1120	-.1160

## AMES 87-757 IAS OBA + S3 + T9 ORBITER BASE

(RBN22)

## SECTION ( 3 ) ORBITER BASE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.400	TAP NO	1.500	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1080	-.1110	-.1110	-.1040	-.1090	-.1120	-.1250	-.1140
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 6.750	TAP NO	1.500	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.1140	-.1160	-.1160	-.1070	-.1140	-.1130	-.1240	-.1240
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -6.680	TAP NO	1.500	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0810	-.0840	-.0840	-.0820	-.0830	-.0890	-.0890	-.0890
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.490	TAP NO	1.500	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0850	-.0850	-.0860	-.0870	-.0840	-.0890	-.0860	-.0910
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.310	TAP NO	1.500	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0850	-.0870	-.0860	-.0860	-.0830	-.0890	-.0880	-.0840
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .160	TAP NO	1.500	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0840	-.0860	-.0850	-.0870	-.0830	-.0850	-.0870	-.0840
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.480	TAP NO	1.500	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0860	-.0840	-.0860	-.0850	-.0870	-.0870	-.0890	-.0890
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.750	TAP NO	1.500	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0820	-.0830	-.0840	-.0830	-.0830	-.0860	-.0870	-.0870
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.910	TAP NO	1.500	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000
		A	.000	-.0870	-.0890	-.0890	-.0860	-.0850	-.0890	-.0840	-.0810

AVES 97-707 1A9 02A + S3 + T9 UPPER MFS NOZZLE

(F8NDJ1) ( 15 MAY 73 )

REFERENCE DATA

SRCP = 2.4215 50.FT. DRPF = 28.5350 INCHES  
 LRDF = 39.8490 INCHES MFP = .5100 INCHES  
 PRDF = 39.8490 INCHES ZMFP = .5100 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

BETAT = .500 OFBINC = .500  
 RUDDER = .500 ELEVON = .500  
 RUDDFLP = .500

SECTION ( 1 ) MFS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 ALPHAT( 1 ) = -8.150

MACH	Y/LNP	Z/LNP	CP
.500	.250	.500	.750
.500	-.1310	-.1310	
90.500	-.1390	-.1390	-.1310
135.500	-.1475	-.1380	-.1450
180.500	.1760	.1370	-.1370
225.500	-.1970	-.1390	-.1420
270.500	-.1360	-.1350	-.1350

MACH ( 2 ) = 2.498 ALPHAT( 2 ) = -6.170

MACH	Y/LNP	Z/LNP	CP
.500	.250	.500	.750
.500	-.1460	-.1460	
90.500	-.1450	-.1400	-.1400
135.500	-.1520	-.1410	-.1490
180.500	.1290	.1320	-.1390
225.500	-.1590	-.1400	-.1490
270.500	-.1440	-.1420	-.1420

MACH ( 3 ) = 2.498 ALPHAT( 3 ) = -4.190

MACH	Y/LNP	Z/LNP	CP
.500	.250	.500	.750
.500	-.1490	-.1470	
90.500	-.1500	-.1460	-.1470
135.500	-.1510	-.1510	-.1540
180.500	.1090	.1720	-.1400
225.500	-.1620	-.1970	-.1540
270.500	-.1510	-.1470	-.1490

MACH ( 4 ) = 2.498 ALPHAT( 4 ) = -2.160

MACH	Y/LNP	Z/LNP	CP
.500	.250	.500	.750
.500	-.1500	-.1500	
90.500	-.1510	-.1480	-.1490
135.500	-.1510	-.1960	-.1960
180.500	.1030	.1370	-.1910
225.500	-.1640	-.1990	-.1970
270.500	-.1530	-.1900	-.1950

MACH ( 5 ) = 2.498 ALPHAT( 5 ) = .500

MACH	Y/LNP	Z/LNP	CP
.500	.250	.500	.750
.500	-.1510	-.1530	
90.500	-.1550	-.1530	-.1520
135.500	-.1690	-.1510	-.1590
180.500	.1010	.1160	-.1590
225.500	-.1700	-.1800	-.1590

AMES 87-707 IAS ORA + S3 + T9 UPPER MPS NOZZLE (RNDUS1)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 ALPHAT( 5 ) = .000 X/LNP .250 .500 .750  
 PHI  
 270.000 -.1550 -.1520 -.1530

MACH ( 1 ) = 2.498 ALPHAT( 6 ) = 1.930 X/LNP .250 .500 .750  
 PHI  
 .000 -.1550 -.1560  
 90.000 -.1560 -.1570 -.1590  
 135.000 -.1700 -.1620 -.1620  
 180.000 .0170 .0130 -.1560  
 225.000 -.1790 -.1610 -.1590  
 270.000 -.1590 -.1570 -.1540

MACH ( 1 ) = 2.498 ALPHAT( 7 ) = 3.900 X/LNF .250 .500 .750  
 PHI  
 .000 -.1560 -.1590  
 90.000 -.1610 -.1590 -.1570  
 135.000 -.1770 -.1620 -.1690  
 180.000 .0180 .0350 -.1590  
 225.000 -.1790 -.1630 -.1640  
 270.000 -.1620 -.1590 -.1550

MACH ( 1 ) = 2.498 ALPHAT( 8 ) = 5.950 X/LNF .250 .500 .750  
 PHI  
 .000 -.1560 -.1570  
 90.000 -.1590 -.1590 -.1560  
 135.000 -.1740 -.1640 -.1620  
 180.000 .0220 .0610 -.1590  
 225.000 -.1760 -.1640 -.1610  
 270.000 -.1610 -.1590 -.1570

MACH ( 1 ) = 2.498 ALPHAT( 9 ) = 8.010 X/LNF .250 .500 .750  
 PHI  
 .000 -.1590 -.1630  
 90.000 -.1640 -.1610 -.1620  
 135.000 -.1710 -.1640 -.1630  
 180.000 .0100 .0850 -.1640  
 225.000 -.1760 -.1650 -.1650  
 270.000 -.1620 -.1630 -.1620

MACH ( 2 ) = 2.999 ALPHAT( 1 ) = -0.070 X/LNF .250 .500 .750  
 PHI  
 .000 -.1070 -.1100  
 90.000 -.1140 -.1140 -.1100  
 135.000 -.1630 -.1080 -.1140  
 180.000 .1720 .2190 -.1140  
 225.000 -.1640 -.1070 -.1160



DATE 10 SEP 73 TABULATED PRESSURE DATA - IAS

AVES 07-707 1A9 02A + S3 + T9 UPPER MPS NOZZLE

(RBN051)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	ALPHAT( 1 ) = -0.070	X/LNF	.250	.500	.750
		PHI			
		270.000	-.1160	-.1140	-.1130
MACH ( 2 ) = 2.999	ALPHAT( 2 ) = -0.100	X/LNF	.250	.500	.750
		PHI			
		.000	-.1120	-.1160	
		90.000	-.1200	-.1190	-.1170
		135.000	-.0970	-.0960	-.1250
		180.000	.1250	.1580	-.1080
		225.000	-.0730	-.0890	-.1200
		270.000	-.1220	-.1110	-.1160

MACH ( 2 ) = 2.999 ALPHAT( 3 ) = -4.070

X/LNF	.250	.500	.750
PHI			
.000	-.1100	-.1140	
90.000	-.1170	-.1160	-.1160
135.000	-.0480	-.0570	-.1150
180.000	.0800	.1030	-.1080
225.000	-.0630	-.0900	-.1210
270.000	-.1210	-.1170	-.1170

MACH ( 2 ) = 2.999 ALPHAT( 4 ) = -2.000

X/LNF	.250	.500	.750
PHI			
.000	-.1130	-.1200	
90.000	-.1230	-.1190	-.1180
135.000	-.0600	-.1150	-.1190
180.000	.0510	.0590	-.1140
225.000	-.0730	-.1020	-.1230
270.000	-.1210	-.1180	-.1180

MACH ( 2 ) = 2.999 ALPHAT( 5 ) = -0.000

X/LNF	.250	.500	.750
PHI			
.000	-.1170	-.1190	
90.000	-.1190	-.1170	-.1200
135.000	-.0750	-.1180	-.1220
180.000	.0430	.0460	-.1160
225.000	-.0870	-.1120	-.1230
270.000	-.1210	-.1110	-.1190

MACH ( 2 ) = 2.999 ALPHAT( 6 ) = 1.920

X/LNF	.250	.500	.750
PHI			
.000	-.1170	-.1190	
90.000	-.1220	-.1190	-.1190
135.000	-.0940	-.1240	-.1190
180.000	.0320	.0280	-.1190
225.000	-.1060	-.1190	-.1250

AMES 07-757 IAS OEA + S3 + T9 UPPER WPS NOZZLE

(P2NDUS)

SECTION ( 1 ) WPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 ALPHAT( 6 ) = 1.932

WPS	WPS	WPS	WPS	WPS	WPS
90.000	135.000	180.000	225.000	270.000	
-.1190	-.1220	-.1240	-.1260	-.1280	-.1220

MACH ( 2 ) = 2.999 ALPHAT( 7 ) = 3.980

WPS	WPS	WPS	WPS	WPS	WPS
90.000	135.000	180.000	225.000	270.000	
-.1190	-.1220	-.1240	-.1260	-.1280	-.1220

MACH ( 2 ) = 2.999 ALPHAT( 8 ) = 9.990

WPS	WPS	WPS	WPS	WPS	WPS
90.000	135.000	180.000	225.000	270.000	
-.1170	-.1200	-.1220	-.1240	-.1260	-.1210

MACH ( 2 ) = 2.999 ALPHAT( 9 ) = 0.000

WPS	WPS	WPS	WPS	WPS	WPS
90.000	135.000	180.000	225.000	270.000	
-.1170	-.1200	-.1220	-.1240	-.1260	-.1210

MACH ( 3 ) = 3.912 ALPHAT( 1 ) = -0.000

WPS	WPS	WPS	WPS	WPS	WPS
90.000	135.000	180.000	225.000	270.000	
-.1070	-.1090	-.1110	-.1130	-.1150	-.1080

MACH ( 3 ) = 3.912 ALPHAT( 2 ) = -0.000

WPS	WPS	WPS	WPS	WPS	WPS
90.000	135.000	180.000	225.000	270.000	
-.1070	-.1090	-.1110	-.1130	-.1150	-.1080

WPS	WPS	WPS	WPS	WPS	WPS
90.000	135.000	180.000	225.000	270.000	
-.1070	-.1090	-.1110	-.1130	-.1150	-.1080

DATE 18 SEP 73 TABULATED PRESSURE DATA - 1A9C

AMES 87-707 1A9 ORA + S3 + T9 UPPER MPS NOZZLE

(RBNDJ1)

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.552 ALPHAT( 2 ) = -6.187  
 X/LNP .25J .5J .75J  
 PHI 27J .55J -.147J -.144J

MACH ( 3 ) = 3.552 ALPHAT( 3 ) = -4.575  
 X/LNP .15J -.197J  
 PHI 9J .55J -.197J  
 9J .55J -.197J  
 13J .55J -.197J  
 18J .55J .175J  
 22J .55J -.197J  
 27J .55J -.197J

MACH ( 3 ) = 3.552 ALPHAT( 4 ) = -2.563  
 X/LNP .25J .5J .75J  
 PHI 11J -.197J  
 9J .55J -.197J  
 13J .55J -.197J  
 18J .55J .175J  
 22J .55J -.197J  
 27J .55J -.197J

MACH ( 3 ) = 3.552 ALPHAT( 5 ) = -.530  
 X/LNP .25J .5J .75J  
 PHI 11J -.197J  
 9J .55J -.197J  
 13J .55J -.197J  
 18J .55J .175J  
 22J .55J -.197J  
 27J .55J -.197J

MACH ( 3 ) = 3.552 ALPHAT( 6 ) = 1.995  
 X/LNP .25J .5J .75J  
 PHI 11J -.197J  
 9J .55J -.197J  
 13J .55J -.197J  
 18J .55J .175J  
 22J .55J -.197J  
 27J .55J -.197J

MACH ( 3 ) = 3.552 ALPHAT( 7 ) = 3.980  
 X/LNP .25J .5J .75J  
 PHI 11J -.197J  
 9J .55J -.197J  
 13J .55J -.197J  
 18J .55J .175J  
 22J .55J -.197J  
 27J .55J -.197J

AMES 87-707 IAS ORA - S3 + T9 UPPER MPS NOZZLE

(RBNDS:1)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.562 ALPHAT( 7 ) = 3.986

X/LNP	.250	.500	.750
PHI			
270.150	-.11515	-.11000	-.10990

MACH ( 3 ) = 3.562 ALPHAT( 8 ) = 5.975

X/LNP	.250	.500	.750
PHI			
.100	-.10820	-.11020	
90.100	-.11020	-.11020	-.11020
135.100	-.10990	-.10970	-.11030
180.100	.10700	-.10700	-.11020
225.100	-.11030	-.10970	-.11020
270.100	-.11040	-.11020	-.11040

MACH ( 3 ) = 3.562 ALPHAT( 9 ) = 8.515

X/LNP	.250	.500	.750
PHI			
.100	-.10910	-.10990	
90.100	-.10990	-.10980	-.11010
135.100	-.11000	-.10990	-.11000
180.100	-.10990	-.10330	-.11040
225.100	-.11000	-.10990	-.11040
270.100	-.11010	-.11010	-.10970

DATE 10 SEP 73 TABULATED PRESSURE DATA - 1A9C

AVES 87-757 1A9 CGA + 53 + 19 UPPER WFS NOZZLE

(PBDN/2) ( 15 MAY 73 )

REFERENCE DATA

SREF = 2.4215 50. FT. ANP = 20.5300 INCHES  
 LREF = 39.8479 INCHES YREF = .0000 INCHES  
 ZREF = 39.8479 INCHES ZREF = .0000 INCHES  
 SCALE = .0300 SCALE

FAPARAMETRIC DATA

ALPHAT = -8.000 OPBINC = .500  
 RUDDER = .000 ELEVON = .000  
 RUDDLP = .000

DEPENDENT VARIABLE CP

SECTION ( 1 ) WFS NOZZLE	MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.400	X/LNP	Y/LNP	PHI
			.250	.500	.750
			-.1440	-.1480	
			-.1520	-.1510	-.1440
			-.0330	-.0800	-.1540
			.1160	.0030	-.1520
			-.1620	-.0600	-.1520
			-.1420	-.1470	-.1450
			.250	.500	.750
			-.1350	-.1430	
			-.1420	-.1450	-.1420
			-.0470	-.1130	-.1530
			.1110	.0120	-.1430
			-.1440	-.1520	-.1530
			-.1450	-.1420	-.1430
			.250	.500	.750
			-.1380	-.1430	
			-.1480	-.1450	-.1410
			-.0770	-.1430	-.1490
			.1970	.0500	-.1400
			-.1450	-.1320	-.1490
			-.1450	-.1420	-.1410
			.250	.500	.750
			-.1360	-.1360	
			-.1440	-.1430	-.1390
			-.0680	-.1390	-.1460
			.2190	.0830	-.1380
			-.1510	-.1250	-.1490
			-.1390	-.1320	-.1410
			.250	.500	.750
			-.1350	-.1350	-.1410
			.250	.500	.750
			-.1360	-.1380	
			-.1370	-.1340	-.1350
			-.1550	-.1170	-.1460
			-.0590	.0420	-.1330
			-.1520	-.1320	-.1440
			-.1520	-.1320	-.1440



## AMES 87-707 IA9 OZA + S3 + T9 UPPER MPS NOZZLE

(RBNDX2)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	X/LNP	.250	.500	.750
		PHI			
		270.000	-.1410	-.1395	-.1340
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.320	X/LNP	.250	.500	.750
		PHI			
		.000	-.1400	-.1430	
		90.000	-.1480	-.1450	-.1430
		135.000	-.1570	-.1290	-.1510
		180.000	.1680	.0530	-.1400
		225.000	-.1480	-.1290	-.1500
		270.000	-.1480	-.1430	-.1390
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.460	X/LNP	.250	.500	.750
		PHI			
		.000	-.1420	-.1430	
		90.000	-.1480	-.1470	-.1440
		135.000	-.1620	-.1440	-.1550
		180.000	.1470	.0630	-.1510
		225.000	-.1630	-.1920	-.1540
		270.000	-.1480	-.1450	-.1430
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.590	X/LNP	.250	.500	.750
		PHI			
		.000	-.1450	-.1470	
		90.000	-.1510	-.1480	-.1470
		135.000	-.1740	-.1640	-.1560
		180.000	.1730	.1710	-.1640
		225.000	-.1540	-.0990	-.1530
		270.000	-.1560	-.1500	-.1470
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.560	X/LNP	.250	.500	.750
		PHI			
		.000	-.1070	-.1110	
		90.000	-.1170	-.1160	-.1110
		135.000	-.1490	-.1470	-.1310
		180.000	.0900	.1040	-.1110
		225.000	-.1190	-.1190	-.1210
		270.000	-.1130	-.1150	-.1110
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.400	X/LNP	.250	.500	.750
		PHI			
		.000	-.1090	-.1070	
		90.000	-.1110	-.1080	-.1080
		135.000	-.1440	-.1260	-.1120
		180.000	.1190	.0490	-.1120
		225.000	-.1040	-.1060	-.1120

## AMES 87-717 IA9 OCA + S3 + T9 UPPER MPS NOZZLE

(RBND012)

## SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.400	X/LNP	.250	.500	.750
PHI					
		270.000	-.1110	-.1070	-.1070
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.250	X/LNP	.250	.500	.750
PHI					
		.000	-.1060	-.1110	
		90.000	-.1120	-.1110	-.1100
		135.000	.0030	-.0550	-.1140
		180.000	.1440	.0810	-.1160
		225.000	-.0920	-.0910	-.1180
		270.000	-.1140	-.1120	-.1110
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.100	X/LNP	.250	.500	.750
PHI					
		.000	-.1080	-.1110	
		90.000	-.1140	-.1140	-.1120
		135.000	.0010	-.0750	-.1170
		180.000	.2020	.1240	-.1180
		225.000	-.0990	-.0670	-.1170
		270.000	-.1120	-.1110	-.1130
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.250	X/LNP	.250	.500	.750
PHI					
		.000	-.1040	-.1090	
		90.000	-.1110	-.1070	-.1080
		135.000	-.0920	-.1480	-.1140
		180.000	.1890	.1350	-.1020
		225.000	-.0290	-.0360	-.1130
		270.000	-.1080	-.1110	-.1090
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.400	X/LNP	.250	.500	.750
PHI					
		.000	-.1040	-.1060	
		90.000	-.1110	-.1090	-.1070
		135.000	-.0930	-.0790	-.1150
		180.000	.1410	.1320	-.1020
		225.000	-.0330	-.0360	-.1020
		270.000	-.1090	-.1070	-.1050
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.580	X/LNP	.250	.500	.750
PHI					
		.000	-.1060	-.1080	
		90.000	-.1150	-.1120	-.1100
		135.000	-.1090	-.0980	-.1170
		180.000	.1200	.1660	-.1160
		225.000	-.0330	-.0150	-.1150

AMES 87-757 1A9 ORA + S3 + 79 UPPER MPS NOZZLE

(RBND52)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.98J

X/LNP	.25J	.5J	.75J
PHI			
27J.1J	-.158J	-.159J	-.159J

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 8.75J

X/LNF	.25J	.5J	.75J
PHI			
.1J	-.114J	-.111J	
9J.1J	-.112J	-.111J	-.109J
135.1J	-.114J	-.117J	-.117J
18J.1J	.181J	.177J	-.123J
225.1J	-.122J	-.119J	-.112J
27J.1J	-.112J	-.111J	-.107J

MACH ( 3 ) = 3.9J/2 BETAT ( 1 ) = -8.71J

X/LNF	.25J	.5J	.75J
PHI			
.1J	-.187J	-.195J	
9J.1J	-.198J	-.192J	-.195J
135.1J	.111J	.114J	-.191J
18J.1J	.156J	.125J	-.198J
225.1J	-.189J	-.189J	-.151J
27J.1J	-.197J	-.198J	-.198J

MACH ( 3 ) = 3.9J/2 BETAT ( 2 ) = -6.52J

X/LNF	.25J	.5J	.75J
PHI			
.1J	-.182J	-.191J	
9J.1J	-.199J	-.198J	-.191J
135.1J	.112J	-.119J	-.189J
18J.1J	.176J	.112J	-.191J
225.1J	-.177J	-.181J	-.111J
27J.1J	-.191J	-.191J	-.191J

MACH ( 3 ) = 3.9J/2 BETAT ( 3 ) = -4.33J

X/LNF	.25J	.5J	.75J
PHI			
.1J	-.185J	-.193J	
9J.1J	-.198J	-.197J	-.197J
135.1J	.118J	-.136J	-.192J
18J.1J	.131J	.126J	-.191J
225.1J	-.171J	-.175J	-.198J
27J.1J	-.197J	-.197J	-.197J

MACH ( 3 ) = 3.9J/2 BETAT ( 4 ) = -2.14J

X/LNF	.25J	.5J	.75J
PHI			
.1J	-.181J	-.191J	
9J.1J	-.194J	-.195J	-.192J
135.1J	.119J	-.116J	-.192J
18J.1J	.155J	.111J	-.187J
225.1J	-.155J	-.111J	-.195J





DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

AMES 87-707 IAS O2A + S3 + T9 UPPER MPS NOZZLE

(RBNDJ2)

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140

X/LNP	.250	.500	.750
PHI			
270.000	-.0910	-.0880	-.0900

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260

X/LNP	.250	.500	.750
PHI			
.000	-.0810	-.0900	
90.000	-.0920	-.0910	-.0940
135.000	-.0480	-.0020	-.0960
180.000	.1580	.1510	-.0890
225.000	-.0090	.0120	-.0890
270.000	-.0930	-.0920	-.0870

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.480

X/LNP	.250	.500	.750
PHI			
.000	-.0830	-.0930	
90.000	-.0970	-.0960	-.0940
135.000	-.0590	-.0730	-.1010
180.000	.0940	.1370	-.0890
225.000	-.0190	-.0130	-.0920
270.000	-.0970	-.0940	-.0940

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.690

X/LNP	.250	.500	.750
PHI			
.000	-.0810	-.0920	
90.000	-.0930	-.0950	-.0950
135.000	-.0800	-.0810	-.0990
180.000	.0740	.1500	-.0930
225.000	-.0210	.0040	-.0900
270.000	-.0980	-.0960	-.0940

MACH ( 3 ) = 3.502 BETAT ( 8 ) = 8.910

X/LNP	.250	.500	.750
PHI			
.000	-.0870	-.0980	
90.000	-.0960	-.0970	-.1020
135.000	-.0930	-.1020	-.1030
180.000	.0730	.0990	-.1020
225.000	-.0230	.0330	-.0960
270.000	-.1040	-.0980	-.1010

AMES 87-707 1A9 OCA + S3 + T9 UPPER MPS NOZZLE

(RBN003) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

PARAMETRIC DATA

ALPHAT = -6.0000 ORBITANC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDEFLR = .0000

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.420

X/LNP	.250	.500	.750
PHI			
.0000	-.1420	-.1470	
90.0000	-.1520	-.1460	-.1420
135.0000	-.0540	-.0920	-.1490
180.0000	.0770	.0640	-.1520
225.0000	-.1610	-.1620	-.1470
270.0000	-.1490	-.1470	-.1460

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.290

X/LNP	.250	.500	.750
PHI			
.0000	-.1430	-.1470	
90.0000	-.1480	-.1480	-.1430
135.0000	-.0640	-.1270	-.1530
180.0000	.0750	.0690	-.1470
225.0000	-.1480	-.1500	-.1530
270.0000	-.1480	-.1450	-.1430

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180

X/LNP	.250	.500	.750
PHI			
.0000	-.1460	-.1460	
90.0000	-.1500	-.1460	-.1410
135.0000	-.0900	-.1450	-.1510
180.0000	.1640	.0280	-.1440
225.0000	-.1480	-.1360	-.1510
270.0000	-.1500	-.1450	-.1460

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.070

X/LNP	.250	.500	.750
PHI			
.0000	-.1410	-.1410	
90.0000	-.1460	-.1440	-.1390
135.0000	-.1040	-.1480	-.1490
180.0000	.1660	.0680	-.1400
225.0000	-.1520	-.1280	-.1540
270.0000	-.1430	-.1390	-.1430

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180

X/LNP	.250	.500	.750
PHI			
.0000	-.1430	-.1440	
90.0000	-.1450	-.1460	-.1460
135.0000	-.1690	-.1280	-.1530
180.0000	.1150	.0690	-.1410
225.0000	-.1190	-.1490	-.1430

(RBNDJ3)

AMES 87-717 IAS CEA + S3 + T9 UPPER WP3 NOZZLE

DEPENDENT VARIABLE CP

SECTION ( 1 ) MP3 NOZZLE

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180

X/LNP	.250	.500	.750
PHI			
270.000	-.1480	-.1460	-.1420

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.310

X/LNP	.250	.500	.750
PHI			
.000	-.1450	-.1430	
90.000	-.1460	-.1430	-.1440
135.000	-.1590	-.1260	-.1490
180.000	.1260	.1480	-.1390
225.000	-.1020	-.1370	-.1510
270.000	-.1450	-.1440	-.1420

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.440

X/LNP	.250	.500	.750
PHI			
.000	-.1430	-.1440	
90.000	-.1490	-.1470	-.1450
135.000	-.1610	-.1450	-.1510
180.000	.1560	.1250	-.1530
225.000	-.1840	-.1150	-.1530
270.000	-.1490	-.1470	-.1420

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.570

X/LNP	.250	.500	.750
PHI			
.000	-.1450	-.1480	
90.000	-.1520	-.1480	-.1480
135.000	-.1680	-.1620	-.1540
180.000	.1530	.1220	-.1640
225.000	-.1720	-.1850	-.1560
270.000	-.1540	-.1570	-.1490

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.570

X/LNP	.250	.500	.750
PHI			
.000	-.1110	-.1150	
90.000	-.1170	-.1170	-.1120
135.000	-.1290	-.1250	-.1110
180.000	.0700	.0990	-.1200
225.000	-.1210	-.1190	-.1170
270.000	-.1190	-.1190	-.1130

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.420

X/LNP	.250	.500	.750
PHI			
.000	-.1180	-.1110	
90.000	-.1120	-.1120	-.1090
135.000	-.1210	-.1080	-.1140
180.000	.0920	.0300	-.1120
225.000	-.1130	-.1160	-.1200

AVES 67-707 1A9 OSA + S3 + T9 UPPER MPS NOZZLE

(RND003)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.420

X/LNP	.250	.500	.750
PHI			
270.000	-.1140	-.1120	-.1130

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.260

X/LNP	.250	.500	.750
PHI			
.000	-.1100	-.1190	
90.000	-.1170	-.1180	-.1140
135.000	-.1170	-.1690	-.1180
180.000	.1310	.0600	-.1130
225.000	-.0910	-.0870	-.1250
270.000	-.1190	-.1160	-.1150

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.100

X/LNP	.250	.500	.750
PHI			
.000	-.1070	-.1110	
90.000	-.1160	-.1190	-.1140
135.000	-.0420	-.0750	-.1160
180.000	.1730	.1090	-.1140
225.000	-.1040	-.0710	-.1260
270.000	-.1130	-.1120	-.1130

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.220

X/LNP	.250	.500	.750
PHI			
.000	-.1080	-.1100	
90.000	-.1190	-.1100	-.1130
135.000	-.0960	-.0560	-.1180
180.000	.1920	.0910	-.1020
225.000	-.0410	-.0540	-.1180
270.000	-.1130	-.1130	-.1130

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.390

X/LNP	.250	.500	.750
PHI			
.000	-.1080	-.1100	
90.000	-.1160	-.1160	-.1120
135.000	-.0910	-.0730	-.1190
180.000	.1230	.1260	-.1080
225.000	-.0490	-.0540	-.1120
270.000	-.1120	-.1120	-.1090

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.560

X/LNP	.250	.500	.750
PHI			
.000	-.1090	-.1110	
90.000	-.1110	-.1110	-.1110
135.000	-.1090	-.1000	-.1160
180.000	.0990	.1300	-.1130
225.000	-.0440	-.0230	-.1090

TABULATED PRESSURE DATA - 1A9C

AMES 87-707 1A9 ORA + S3 + T9 UPPER MPS NOZZLE

(REMOVED)

SECTION ( 1 ) 11MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 5.98  
 X/LNF .250 .500 .750  
 PHI 275.500 -.1150 -.1150 -.1580

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 9.750  
 X/LNF .250 .500 .750  
 PHI .500 -.1160 -.1120  
 95.500 -.1130 -.1120 -.1150  
 135.500 -.1120 -.1190 -.1160  
 185.500 .0600 .1670 .1220  
 225.500 -.0380 -.0450 -.1160  
 275.500 -.1160 -.1150 -.1580

MACH ( 3 ) = 3.942 BETAT ( 1 ) = -0.750  
 X/LNF .250 .500 .750  
 PHI .500 -.1080 -.1080  
 95.500 -.1040 -.1160 -.1560  
 135.500 -.1040 .0110 -.1090  
 185.500 .0390 .0750 .1010  
 225.500 -.1090 -.1080 -.1560  
 275.500 -.1080 -.1150 -.1090

MACH ( 3 ) = 3.942 BETAT ( 2 ) = -0.930  
 X/LNF .250 .500 .750  
 PHI .500 -.1040 -.1090  
 95.500 -.1080 -.1160 -.1040  
 135.500 -.1060 .0120 -.1040  
 185.500 .0540 .0870 .1090  
 225.500 -.1070 -.1090 -.1090  
 275.500 -.1080 -.1080 -.1060

MACH ( 3 ) = 3.942 BETAT ( 3 ) = -4.340  
 X/LNF .250 .500 .750  
 PHI .500 -.1090 -.1050  
 95.500 -.1010 -.1010 -.1050  
 135.500 .0010 .0440 -.1050  
 185.500 .0620 .1130 .1040  
 225.500 -.1070 .0170 .1050  
 275.500 -.1090 -.1090 -.1090

MACH ( 3 ) = 3.942 BETAT ( 4 ) = -2.140  
 X/LNF .250 .500 .750  
 PHI .500 -.1070 -.1060  
 95.500 -.1070 -.1080 -.1070  
 135.500 .0110 .0590 .1040  
 185.500 .1340 .1430 .1090  
 225.500 -.1060 .0580 .1050



AMES 87-757 IAS OCA + S3 + T9 UPPER MPS NOZZLE

(RPM0.3)

SECTION : 1) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH (3) = 3.5/2	BETA* (4) = -2.140	X/LNP	.250	.500	.750
		PM1			
		270.000	-.5935	-.5935	-.5975
MACH (3) = 3.5/2	BETA* (5) = 2.280	X/LNP	.250	.500	.750
		PM1			
		00.000	-.5075	-.5925	
		90.000	-.5935	-.5940	-.5950
		135.000	-.5595	-.5535	-.5580
		180.000	.1260	.1515	-.1020
		225.000	-.5195	-.5115	-.5240
		270.000	-.5940	-.5915	-.5940

MACH (3) = 3.5/2 BETA\* (6) = 4.470

X/LNP	.250	.500	.750
PM1			
00.000	-.5075	-.5940	
90.000	-.5975	-.5975	-.5980
135.000	-.5550	-.5500	-.5500
180.000	.0790	.1210	-.1020
225.000	-.5330	-.5320	-.5240
270.000	-.5920	-.5975	-.5950

MACH (3) = 3.5/2 BETA\* (7) = 5.660

X/LNP	.250	.500	.750
PM1			
00.000	-.5075	-.5940	
90.000	-.5975	-.5980	-.5990
135.000	-.5080	-.5090	-.5115
180.000	.0510	.1240	-.1470
225.000	-.5320	-.5000	-.5010
270.000	-.5150	-.5090	-.5090

MACH (3) = 3.5/2 BETA\* (8) = 8.890

X/LNP	.250	.500	.750
PM1			
00.000	-.5080	-.5970	
90.000	-.5950	-.5990	-.5970
135.000	-.5090	-.5130	-.5115
180.000	.0590	.0350	-.5130
225.000	-.5020	-.5000	-.5090
270.000	-.5110	-.5070	-.5080

AVES 87-757 1A9 08A + 53 + 79 UPPER MPS NOZZLE

(08NDX44) ( 15 MAY 73 )

## REFERENCE DATA

BODY = 2.4215 50.87. XORRP = 28.5356 INCHES  
 LEAF = 39.8450 INCHES YMRP = .1550 INCHES  
 SPYF = 35.8450 INCHES ZMRP = .1550 INCHES  
 SCALE = .5356 SCALE

## PARAMETRIC DATA

ALPHAT = -4.550 OFFBINC = .950  
 RUDDER = .550 ELEVON = .550  
 RUDFLP = .550

## DEPENDENT VARIABLE CP

## SECTION ( 1 ) 3 MPS NOZZLE

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.430  

Y/LSP P41	.250	.500	.750
.500	-.1970	-.1950	
90.500	-.1540	-.1510	-.1480
135.500	-.1490	-.1490	-.1540
180.500	.0200	-.1000	-.1630
225.500	-.1680	-.1640	-.1540
270.500	-.1540	-.1510	-.1510

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.310

Y/LSP P41	.250	.500	.750
.500	-.1490	-.1950	
90.500	-.1540	-.1950	-.1450
135.500	-.1680	-.1340	-.1550
180.500	.0480	-.1030	-.1540
225.500	-.1550	-.1540	-.1550
270.500	-.1540	-.1520	-.1510

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.190

Y/LSP P41	.250	.500	.750
.500	-.1440	-.1470	
90.500	-.1950	-.1420	-.1410
135.500	-.1650	-.1490	-.1520
180.500	.1270	.0510	-.1480
225.500	-.1510	-.1410	-.1510
270.500	-.1510	-.1480	-.1470

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.070

Y/LSP P41	.250	.500	.750
.500	-.1430	-.1480	
90.500	-.1470	-.1480	-.1410
135.500	-.1130	-.1520	-.1420
180.500	.1250	.1390	-.1450
225.500	-.1950	-.1380	-.1550
270.500	-.1480	-.1450	-.1460

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180

Y/LSP P41	.250	.500	.750
.500	-.1470	-.1510	
90.500	-.1550	-.1500	-.1510
135.500	-.1760	-.1380	-.1580
180.500	.0720	-.1010	-.1480
225.500	-.1330	-.1510	-.1580

## AXES 67-707 IAS OCA + S3 + T9 UPPER MPS NOZZLE

(RBNDU4)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.185

X/LNP	.250	.500	.750
PHI			
275.000	-.1520	-.1535	-.1460

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.305

X/LNP	.250	.500	.750
PHI			
.000	-.1440	-.1480	
95.000	-.1530	-.1510	-.1480
135.000	-.1660	-.1330	-.1510
185.000	.0860	-.0230	-.1500
225.000	-.1120	-.1410	-.1580
275.000	-.1490	-.1500	-.1470

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.430

X/LNP	.250	.500	.750
PHI			
.000	-.1390	-.1420	
95.000	-.1460	-.1430	-.1420
135.000	-.1540	-.1390	-.1460
185.000	.0750	.0050	-.1490
225.000	-.0970	-.1220	-.1510
275.000	-.1440	-.1430	-.1410

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.550

X/LNP	.250	.500	.750
PHI			
.000	-.1390	-.1410	
95.000	-.1450	-.1410	-.1420
135.000	-.1610	-.1550	-.1450
185.000	.1190	.0860	-.1530
225.000	-.1420	-.1150	-.1500
275.000	-.1430	-.1420	-.1380

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.580

X/LNP	.250	.500	.750
PHI			
.000	-.1090	-.1130	
95.000	-.1160	-.1150	-.1120
135.000	-.0440	-.0340	-.1130
185.000	.0530	.0840	-.1180
225.000	-.1150	-.1150	-.1150
275.000	-.1140	-.1130	-.1130

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.420

X/LNP	.250	.500	.750
PHI			
.000	-.1100	-.1130	
95.000	-.1140	-.1140	-.1160
135.000	-.0410	-.0500	-.1160
185.000	.0680	.0210	-.1150
225.000	-.1070	-.1140	-.1190



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TABULATED PRESSURE DATA - IASC  
 APES 87-707 1A9 02A + S3 + T9 UPPER MPS NOZZLE

(RBM07A)

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 3 ) = -0.420	X/LNF	PM	CP
		270.000	-0.1130	-0.1160
		270.000	-0.1130	-0.1140
		270.000	-0.1130	-0.1130
		90.000	-0.1190	-0.1150
		135.000	-0.1360	-0.1200
		180.000	-0.1220	-0.1170
		225.000	-0.0960	-0.1230
		270.000	-0.1210	-0.1190
		270.000	-0.1120	-0.1140
		90.000	-0.1190	-0.1190
		135.000	-0.0320	-0.1190
		180.000	-0.1350	-0.1190
		225.000	-0.1140	-0.1220
		270.000	-0.1180	-0.1170
		270.000	-0.1120	-0.1130
		90.000	-0.1170	-0.1170
		135.000	-0.0790	-0.1220
		180.000	-0.1600	-0.1160
		225.000	-0.0560	-0.1210
		270.000	-0.1170	-0.1190
		270.000	-0.1140	-0.1170
		90.000	-0.1210	-0.1180
		135.000	-0.0920	-0.1210
		180.000	-0.1160	-0.1170
		225.000	-0.0630	-0.1240
		270.000	-0.1160	-0.1190
		270.000	-0.1140	-0.1170
		90.000	-0.1160	-0.1190
		135.000	-0.1160	-0.1190
		180.000	-0.0870	-0.1210
		225.000	-0.0530	-0.1230
		270.000	-0.1160	-0.1170

(F5N02J4)

AMES 97-757 IAG ORA + S3 + T9 UPPER WFS NOZZLE

## SECTION ( 1 ) MFS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.550	X/LNF	PHI	Y/LNF	Z/LNF	PHI
		275.1110	-0.1195	-0.1140	-0.1140	-0.1140
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 6.715	X/LNF	PHI	Y/LNF	Z/LNF	PHI
		.5110	-0.1115	-0.1140		
		90.1110	-0.1140	-0.1130	-0.1140	-0.1140
		135.1110	-0.1270	-0.1130	-0.1130	-0.1130
		180.1110	0.0470	0.1480	-0.1230	-0.1230
		225.1110	-0.0550	-0.0350	-0.1180	-0.1180
		275.1110	-0.1170	-0.1140	-0.1120	-0.1120
MACH ( 3 ) = 3.512	BETAT ( 1 ) = -8.740	X/LNF	PHI	Y/LNF	Z/LNF	PHI
		.5110	-0.0880	-0.0880		
		90.1110	-0.0970	-0.1110	-0.1030	-0.1030
		135.1110	-0.0210	-0.0180	-0.0980	-0.0980
		180.1110	0.0280	0.0720	-0.1110	-0.1110
		225.1110	-0.0990	-0.0990	-0.1110	-0.1110
		275.1110	-0.0990	-0.0990	-0.0990	-0.0990
MACH ( 3 ) = 3.512	BETAT ( 2 ) = -6.540	X/LNF	PHI	Y/LNF	Z/LNF	PHI
		.5110	-0.0990	-0.0990		
		90.1110	-0.0990	-0.1030	-0.0990	-0.0990
		135.1110	-0.0310	-0.0310	-0.0970	-0.0970
		180.1110	0.0410	0.0650	-0.0950	-0.0950
		225.1110	-0.0910	-0.0820	-0.1110	-0.1110
		275.1110	-0.0990	-0.0970	-0.0990	-0.0990
MACH ( 3 ) = 3.512	BETAT ( 3 ) = -4.340	X/LNF	PHI	Y/LNF	Z/LNF	PHI
		.5110	-0.0910	-0.0910		
		90.1110	-0.1030	-0.1020	-0.1110	-0.1110
		135.1110	-0.0180	-0.0280	-0.1020	-0.1020
		180.1110	0.0670	0.0820	-0.0990	-0.0990
		225.1110	-0.0720	-0.0750	-0.1070	-0.1070
		275.1110	-0.1030	-0.1020	-0.1020	-0.1020
MACH ( 3 ) = 3.512	BETAT ( 4 ) = -2.130	X/LNF	PHI	Y/LNF	Z/LNF	PHI
		.5110	-0.0840	-0.0840		
		90.1110	-0.0950	-0.0950	-0.0910	-0.0910
		135.1110	0.0120	-0.0120	-0.0940	-0.0940
		180.1110	0.0230	0.0330	-0.0890	-0.0890
		225.1110	-0.0650	-0.0410	-0.0970	-0.0970

SECTION 1 1) WPS NOZZLE  
AMES 87-757 IAG ORA + S3 + T9 UPPER WPS NOZZLE

(PNDJJA)

## DEPENDENT VARIABLE CP

MACH (3) = 3.912	BETAT (4) = -2.135	1/LNF	.25J	.51J	.75J
PHI					
		275.11J	-.1595J	-.1086J	-.1933J
PHI					
		1/LNF	.25J	.51J	.75J
PHI					
		.11J	-.1475J	-.1924J	
		91.11J	-.1486J	-.1985J	-.1985J
		135.11J	-.1599J	-.1827J	-.1115J
		181.11J	.1699J	.1199J	-.1859J
		225.11J	-.1821J	-.1971J	-.1969J
		271.11J	-.1999J	-.1948J	-.1948J
PHI					
		1/LNF	.25J	.51J	.75J
PHI					
		.11J	-.1999J	-.1999J	
		91.11J	-.1999J	-.1999J	-.1975J
		135.11J	-.1999J	-.1999J	-.1999J
		181.11J	.1859J	.1128J	-.1999J
		225.11J	-.1999J	-.1999J	-.1999J
		271.11J	-.1999J	-.1999J	-.1999J
PHI					
		1/LNF	.25J	.51J	.75J
PHI					
		.11J	-.1999J	-.1999J	
		91.11J	-.1999J	-.1999J	-.1999J
		135.11J	-.1999J	-.1999J	-.1999J
		181.11J	.1399J	.1175J	-.1999J
		225.11J	-.1999J	-.1999J	-.1999J
		271.11J	-.1999J	-.1999J	-.1999J
PHI					
		1/LNF	.25J	.51J	.75J
PHI					
		.11J	-.1999J	-.1999J	
		91.11J	-.1999J	-.1999J	-.1999J
		135.11J	-.1999J	-.1999J	-.1999J
		181.11J	.1399J	.1527J	-.1999J
		225.11J	-.1999J	-.1999J	-.1999J
		271.11J	-.1999J	-.1999J	-.1999J

MACH (3) = 3.912 BETAT (5) = 4.489J

MACH (3) = 3.912 BETAT (7) = 6.950J

MACH (3) = 3.912 BETAT (8) = 8.875J

AMES 87-707 1A9 ORA + S3 + T9 UPPER MPS NOZZLE

(RBNDJUS) ( 15 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XGRIP = 28.5350 INCHES  
 LREF = 39.8490 INCHES YMRP = .1460 INCHES  
 BRP = 39.8490 INCHES ZMRP = .5000 INCHES  
 SCALE = .1300 SCALE

## PARAMETRIC DATA

ALPHAT = -2.1600 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.430 X/LNP .250 .500 .750  
 PHI  
 .100 -1.160 -1.480  
 90.000 -1.510 -1.900 -1.480  
 135.000 -1.890 -1.140 -1.530  
 180.000 -1.620 -1.600 -1.610  
 225.000 -1.550 -1.580 -1.510  
 270.000 -1.510 -1.500 -1.500

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.310

X/LNP .250 .500 .750  
 PHI  
 .100 -1.470 -1.190  
 90.000 -1.510 -1.490 -1.490  
 135.000 -1.030 -1.260 -1.540  
 180.000 -1.440 -1.000 -1.530  
 225.000 -1.440 -1.510 -1.500  
 270.000 -1.510 -1.180 -1.490

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.190

X/LNP .250 .500 .750  
 PHI  
 .100 -1.470 -1.180  
 90.000 -1.480 -1.480 -1.420  
 135.000 -1.050 -1.420 -1.510  
 180.000 -1.820 -1.010 -1.480  
 225.000 -1.550 -1.440 -1.490  
 270.000 -1.500 -1.180 -1.170

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.070

X/LNP .250 .500 .750  
 PHI  
 .100 -1.160 -1.160  
 90.000 -1.180 -1.160 -1.140  
 135.000 -1.280 -1.500 -1.180  
 180.000 -1.010 -1.110 -1.140  
 225.000 -1.160 -1.100 -1.120  
 270.000 -1.180 -1.160 -1.160

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180

X/LNP .250 .500 .750  
 PHI  
 .100 -1.140 -1.170  
 90.000 -1.490 -1.170 -1.170  
 135.000 -1.740 -1.380 -1.520  
 180.000 -1.420 -1.160 -1.500  
 225.000 -1.370 -1.170 -1.170

## AMES 87-707 1A9 ORA + S3 + T9 UPPER MPS NOZZLE

(RBNDJ5)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CF

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180  
 X/LNP .250 .500 .750  
 PHI  
 270.000 -0.1490 -0.1470 -0.1420

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.300  
 X/LNP .250 .500 .750  
 PHI  
 .000 -0.1420 -0.1460  
 90.000 -0.1510 -0.1490 -0.1460  
 135.000 -0.1620 -0.1380 -0.1490  
 180.000 .0620 -0.0210 -0.1490  
 225.000 -0.1210 -0.1450 -0.1530  
 270.000 -0.1500 -0.1490 -0.1440

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.420  
 X/LNP .250 .500 .750  
 PHI  
 .000 -0.1430 -0.1450  
 90.000 -0.1500 -0.1480 -0.1450  
 135.000 -0.1500 -0.1440 -0.1480  
 180.000 .0420 -0.0160 -0.1520  
 225.000 -0.1120 -0.1360 -0.1550  
 270.000 -0.1470 -0.1450 -0.1450

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.540  
 X/LNP .250 .500 .750  
 PHI  
 .000 -0.1400 -0.1430  
 90.000 -0.1460 -0.1440 -0.1440  
 135.000 -0.1190 -0.1550 -0.1460  
 180.000 .0700 .0520 -0.1560  
 225.000 -0.1010 -0.1300 -0.1530  
 270.000 -0.1440 -0.1430 -0.1430

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.590  
 X/LNP .250 .500 .750  
 PHI  
 .000 -0.1100 -0.1120  
 90.000 -0.1150 -0.1140 -0.1130  
 135.000 -0.0510 -0.0510 -0.1150  
 180.000 .0320 .0550 -0.1180  
 225.000 -0.1170 -0.1160 -0.1150  
 270.000 -0.1140 -0.1120 -0.1150

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.440  
 X/LNP .250 .500 .750  
 PHI  
 .000 -0.1110 -0.1140  
 90.000 -0.1150 -0.1150 -0.1120  
 135.000 -0.0570 -0.0680 -0.1140  
 180.000 .0360 .0280 -0.1150  
 225.000 -0.1090 -0.1170 -0.1140

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TABULATED PRESSURE DATA - IA9C  
AMES 07-707 IA9 O2A + S3 + T9 UPPER MPS NOZZLE

(RBNDJ5)

SECTION ( 1 ) MPS NOZZLE		DEPENDENT VARIABLE CP				
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -0.440	X/LNP PHI	.250	.500	.750	.750
		270.000	-.1150	-.1150	-.1110	-.1110
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.270	X/LNP PHI	.250	.500	.750	.750
		.000	-.1090	-.1140		
		90.000	-.1150	-.1130	-.1120	
		135.000	-.0830	-.0850	-.1160	
		180.000	-.1120	-.0210	-.1120	
		225.000	-.1060	-.0980	-.1150	
		270.000	-.1160	-.1150	-.1150	
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.110	X/LNP PHI	.250	.500	.750	.750
		.000	-.1140	-.1170		
		90.000	-.1180	-.1180	-.1150	
		135.000	-.0570	-.1070	-.1170	
		180.000	-.1050	-.0440	-.1120	
		225.000	-.1190	-.0950	-.1230	
		270.000	-.1150	-.1150	-.1180	
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.220	X/LNP PHI	.250	.500	.750	.750
		.000	-.1090	-.1130		
		90.000	-.1140	-.1130	-.1150	
		135.000	-.1120	-.0840	-.1180	
		180.000	-.0810	-.0310	-.1020	
		225.000	-.0760	-.0970	-.1190	
		270.000	-.1150	-.1130	-.1130	
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.370	X/LNP PHI	.250	.500	.750	.750
		.000	-.1050	-.1140		
		90.000	-.1130	-.1140	-.1090	
		135.000	-.1000	-.0830	-.1130	
		180.000	-.0980	-.0230	-.1130	
		225.000	-.0680	-.0760	-.1150	
		270.000	-.1020	-.1020	-.1090	
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 5.530	X/LNP PHI	.250	.500	.750	.750
		.000	-.1050	-.1070		
		90.000	-.1110	-.1080	-.1080	
		135.000	-.1070	-.1090	-.1110	
		180.000	-.0730	-.0440	-.1130	
		225.000	-.0660	-.0730	-.1110	



AMES 87-707 IA9 OZA + S3 + T9 UPPER MPS NOZZLE

(RBND:15)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.530	X/LNP	.250	.500	.750
PHI					
		270.000	-.1090	-.1080	-.1080
PHI					
		X/LNP	.250	.500	.750
PHI					
		.000	-.1060	-.1080	
		90.000	-.1100	-.1100	-.1100
		135.000	-.1190	-.1150	-.1110
		180.000	.0440	.1370	-.1170
		225.000	-.0620	-.0440	-.1170
		270.000	-.1110	-.1100	-.1100

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.750

X/LNP	.250	.500	.750
PHI			
.000	-.0860	-.0970	
90.000	-.0960	-.0980	-.0960
135.000	-.0290	-.0270	-.0980
180.000	.0410	.0520	-.0970
225.000	-.1000	-.0940	-.0980
270.000	-.0960	-.0960	-.0940

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.540

X/LNP	.250	.500	.750
PHI			
.000	-.0880	-.0990	
90.000	-.0970	-.1010	-.0960
135.000	-.0410	-.0210	-.0970
180.000	.0280	.0250	-.0970
225.000	-.0920	-.0950	-.0990
270.000	-.0970	-.0970	-.0970

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.350

X/LNP	.250	.500	.750
PHI			
.000	-.0870	-.0980	
90.000	-.0990	-.1020	-.0980
135.000	-.0380	-.0250	-.1010
180.000	.0750	.0410	-.0980
225.000	-.0750	-.0780	-.1030
270.000	-.0970	-.0990	-.0990

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140

X/LNP	.250	.500	.750
PHI			
.000	-.0880	-.0970	
90.000	-.0970	-.1020	-.0980
135.000	-.0110	-.0680	-.0990
180.000	.1010	.0720	-.0950
225.000	-.0750	-.0540	-.1020

## AMES 87-707 IAS OCA + S3 + T9 UPPER MPS NOZZLE

(RBNDJLS)

SECTION ( 1 ) MPS NOZZLE	DEPENDENT VARIABLE CP	X/LNP	PHI	X/LNP	PHI	X/LNP	PHI
MACH ( 3 ) = 3.512	BETAT ( 4 ) = -2.140	.250	.510	.750	.250	.510	.750
		270.160	-.1950	-.1930	-.1970		
MACH ( 3 ) = 3.512	BETAT ( 5 ) = 2.260	.250	.510	.750	.250	.510	.750
		90.160	-.1840	-.1960			
		90.160	-.1980	-.1960	-.1980		
		135.160	-.1920	-.1400	-.1110		
		180.160	.1700	.1920	-.1840		
		225.160	-.1390	-.1640	-.1120		
		270.160	-.1970	-.1970	-.1990		
MACH ( 3 ) = 3.512	BETAT ( 6 ) = 4.460	.250	.510	.750	.250	.510	.750
		90.160	-.1860	-.1960			
		90.160	-.1990	-.1980	-.1980		
		135.160	-.1710	-.1720	-.1100		
		180.160	.1600	.1210	-.1970		
		225.160	-.1490	-.1460	-.1120		
		270.160	-.1990	-.1990	-.1100		
MACH ( 3 ) = 3.512	BETAT ( 7 ) = 6.660	.250	.510	.750	.250	.510	.750
		90.160	-.1890	-.1980			
		90.160	-.1990	-.1100	-.1960		
		135.160	-.1930	-.1970	-.1110		
		180.160	.1220	.1880	-.1980		
		225.160	-.1510	-.1170	-.1960		
		270.160	-.1980	-.1960	-.1960		
MACH ( 3 ) = 3.512	BETAT ( 8 ) = 8.860	.250	.510	.750	.250	.510	.750
		90.160	-.1880	-.1100			
		90.160	-.1970	-.1100	-.1100		
		135.160	-.1140	-.1150	-.1190		
		180.160	.1320	.1440	-.1190		
		225.160	-.1500	-.1620	-.1120		
		270.160	-.1100	-.1130	-.1100		



AVES 87-707 1A9 08A + S3 + T9 UPPER MPS NOZZLE

(RBNDUG) ( 10 MAY 75 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 20.3300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .1300 SCALE

PARAMETRIC DATA

ALPMAT = .000 ORBINC = .500  
 RUDDER = .000 ELEVON = .000  
 RUDFLR = .000

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.430

PHI	X/LNP	.250	.500	.750
.000		-.1520	-.1530	
90.000		-.1530	-.1550	-.1540
135.000		-.1530	-.1420	-.1590
180.000		-.1300	-.0200	-.1640
225.000		-.1650	-.1580	-.1550
270.000		-.1550	-.1540	-.1540

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.310

PHI	X/LNP	.250	.500	.750
.000		-.1500	-.1520	
90.000		-.1540	-.1520	-.1510
135.000		-.1170	-.1390	-.1570
180.000		.0110	-.0500	-.1560
225.000		-.1560	-.1590	-.1540
270.000		-.1540	-.1520	-.1520

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.190

PHI	X/LNP	.250	.500	.750
.000		-.1470	-.1510	
90.000		-.1530	-.1510	-.1500
135.000		-.1230	-.1410	-.1530
180.000		.0350	-.0300	-.1560
225.000		-.1600	-.1590	-.1540
270.000		-.1540	-.1530	-.1550

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.070

PHI	X/LNP	.250	.500	.750
.000		-.1460	-.1480	
90.000		-.1500	-.1490	-.1450
135.000		-.1390	-.1520	-.1510
180.000		.0540	-.0170	-.1490
225.000		-.1620	-.1460	-.1540
270.000		-.1500	-.1470	-.1480

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.170

PHI	X/LNP	.250	.500	.750
.000		-.1460	-.1480	
90.000		-.1480	-.1500	-.1510
135.000		-.1700	-.1360	-.1510
180.000		.0150	-.0610	-.1490
225.000		-.1430	-.1330	-.1550

TABULATED PRESSURE DATA - 189K

(REVERSE)

AMES 87-717 IAG ORA + 53 + 7% UPPER MPS NOZZLE

SECTION : 1) MPS NOZZLE SEQUENCE VARIABLE CP

WMO: ( 1 ) = 2.436 BETA\* ( 5 ) = 2.175  
 Sum 17.2F .025 .916 .750  
 275.100 -0.1920 -0.0480 -0.1470

WMO: ( 1 ) = 2.436 BETA\* ( 5 ) = 4.274  
 Sum 17.2F .025 .916 .750  
 9.100 -0.1470 -0.0490 -0.1510  
 235.100 -0.0520 -0.0490 -0.1540  
 285.100 -0.1220 -0.0220 -0.1550  
 225.100 -0.1210 -0.0470 -0.1570  
 27.100 -0.1520 -0.0530 -0.1490

WMO: ( 1 ) = 2.436 BETA\* ( 7 ) = 5.411  
 Sum 17.2F .025 .916 .750  
 9.100 -0.1520 -0.0520 -0.1520  
 235.100 -0.0570 -0.0560 -0.1530  
 285.100 -0.0770 -0.0450 -0.1570  
 225.100 -0.1230 -0.0520 -0.1590  
 27.100 -0.1530 -0.0540 -0.1520

WMO: ( 1 ) = 2.436 BETA\* ( 9 ) = 3.541  
 Sum 17.2F .025 .916 .750  
 9.100 -0.1490 -0.0490 -0.1520  
 235.100 -0.0520 -0.0520 -0.1520  
 285.100 -0.0590 -0.0590 -0.1530  
 225.100 -0.1240 -0.0370 -0.1520  
 27.100 -0.1530 -0.0540 -0.1490

WMO: ( 2 ) = 2.999 BETA\* ( 1 ) = -0.999  
 Sum 17.2F .025 .916 .750  
 9.100 -0.0220 -0.0220 -0.1520  
 235.100 -0.0690 -0.0710 -0.1570  
 285.100 -0.0220 -0.0220 -0.1570  
 225.100 -0.1240 -0.0590 -0.1540  
 27.100 -0.1530 -0.0530 -0.1530

WMO: ( 2 ) = 2.999 BETA\* ( 2 ) = -0.439  
 Sum 17.2F .025 .916 .750  
 9.100 -0.0220 -0.0220 -0.1520  
 235.100 -0.0730 -0.0920 -0.1560  
 285.100 -0.0440 -0.0470 -0.1560  
 225.100 -0.1240 -0.0540 -0.1560  
 27.100 -0.1530 -0.0530 -0.1570

DATE 18 SEP 73 TABULATED PRESSURE DATA - 1A9C

AVES 87-737 1A5 ORA + 33 + 79 UPPER WPS NOZZLE (FBI02045)

SECTION 1 : WPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETA\* ( 2 ) = -6.430  
 WPS  
 270.000 -0.0000 -0.1160 -0.1160

MACH ( 2 ) = 2.999 BETA\* ( 3 ) = -4.270  
 WPS  
 90.000 -0.0000 -0.1130 -0.1130  
 135.000 -0.0040 -0.1130 -0.1120  
 180.000 -0.0070 -0.1070 -0.1170  
 225.000 -0.0080 -0.1010 -0.1090  
 270.000 -0.0080 -0.1020 -0.1190

MACH ( 2 ) = 2.999 BETA\* ( 4 ) = -2.110  
 WPS  
 90.000 -0.0000 -0.1150 -0.1150  
 135.000 -0.0070 -0.1170 -0.1150  
 180.000 -0.0080 -0.1110 -0.1190  
 225.000 -0.0080 -0.1090 -0.1210  
 270.000 -0.0080 -0.1130 -0.1150

MACH ( 2 ) = 2.999 BETA\* ( 5 ) = 2.210  
 WPS  
 90.000 -0.0000 -0.1190 -0.1190  
 135.000 -0.0040 -0.1190 -0.1190  
 180.000 -0.0070 -0.1060 -0.1160  
 225.000 -0.0080 -0.1020 -0.1190  
 270.000 -0.0080 -0.1050 -0.1150

MACH ( 2 ) = 2.999 BETA\* ( 6 ) = 4.370  
 WPS  
 90.000 -0.0000 -0.1120 -0.1120  
 135.000 -0.0070 -0.1190 -0.1190  
 180.000 -0.0080 -0.1020 -0.1190  
 225.000 -0.0080 -0.1090 -0.1210  
 270.000 -0.0080 -0.1150 -0.1190

MACH ( 2 ) = 2.999 BETA\* ( 7 ) = 6.530  
 WPS  
 90.000 -0.0000 -0.1110 -0.1110  
 135.000 -0.0070 -0.1190 -0.1190  
 180.000 -0.0080 -0.1090 -0.1190  
 225.000 -0.0080 -0.1030 -0.1190  
 270.000 -0.0080 -0.1050 -0.1190

## AMES 07-707 IAS OSA + S3 + T9 UPPER NPS NOZZLE

(RBN0346)

## SECTION ( 1 ) NPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 7 ) = 0.530	X/LNP	.250	.500	.750
		PHI			
		275.500	-.1110	-.1110	-.1110
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 0.699	X/LNP	.250	.500	.750
		PHI			
		.000	-.1090	-.1130	
		95.000	-.1120	-.1120	-.1120
		135.000	-.1210	-.1160	-.1140
		185.000	.0390	.0980	-.1190
		225.000	-.0720	-.0680	-.1170
		275.000	-.1130	-.1120	-.1130
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -0.750	X/LNP	.250	.500	.750
		PHI			
		.000	-.1050	-.1070	
		95.000	-.1090	-.1080	-.1070
		135.000	-.1460	-.1290	-.1090
		185.000	-.0230	.0240	-.1010
		225.000	-.1010	-.1020	-.1080
		275.000	-.1090	-.1090	-.1090
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -0.550	X/LNP	.250	.500	.750
		PHI			
		.000	-.1070	-.1070	
		95.000	-.1080	-.1070	-.1090
		135.000	-.0510	-.0460	-.1080
		185.000	.0110	.0130	-.1080
		225.000	-.1070	-.1070	-.1010
		275.000	-.1010	-.1010	-.1010
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.340	X/LNP	.250	.500	.750
		PHI			
		.000	-.1080	-.1030	
		95.000	-.1000	-.1020	-.1010
		135.000	-.0560	-.0380	-.1030
		185.000	.0670	.0190	-.1010
		225.000	-.1010	-.1040	-.1050
		275.000	-.1030	-.1010	-.1020
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.130	X/LNP	.250	.500	.750
		PHI			
		.000	-.1070	-.1070	
		95.000	-.1090	-.1070	-.1080
		135.000	-.1010	-.1040	-.1090
		185.000	.0720	.0520	-.1060
		225.000	-.1050	-.1060	-.1090



DATE 19 SEP 73

EXTRAPOLATED PRESSURE DATA - 1890

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AMCS 77-7 183 79A 0 25 0 75 1000000

(2800006)

SECTION 1 11MPS NOZZLE

DEPENDENT VARIABLE IS

WACM : 1 = 3.912 BETAS ( 9 ) = 2.899

WACM : 2 = 3.912 BETAS ( 9 ) = 2.899

WACM : 3 = 3.912 BETAS ( 9 ) = 2.899

11.28 1.25 0.94 0.75

Sum

3.100 -0.210 -0.199 -0.200

2.900 0.000 -0.190 -0.200

2.700 0.210 0.180 -0.190

2.500 0.420 0.360 -0.190

2.300 0.630 0.570 -0.190

2.100 0.840 0.780 -0.190

WACM : 2 = 3.912 BETAS ( 9 ) = 4.899

11.28 1.25 0.94 0.75

Sum

3.100 -0.210 -0.199 -0.200

2.900 0.000 -0.190 -0.200

2.700 0.210 0.180 -0.190

2.500 0.420 0.360 -0.190

2.300 0.630 0.570 -0.190

2.100 0.840 0.780 -0.190

WACM : 3 = 3.912 BETAS ( 9 ) = 6.899

11.28 1.25 0.94 0.75

Sum

3.100 -0.210 -0.199 -0.200

2.900 0.000 -0.190 -0.200

2.700 0.210 0.180 -0.190

2.500 0.420 0.360 -0.190

2.300 0.630 0.570 -0.190

2.100 0.840 0.780 -0.190

WACM : 3 = 3.912 BETAS ( 9 ) = 8.899

11.28 1.25 0.94 0.75

Sum

3.100 -0.210 -0.199 -0.200

2.900 0.000 -0.190 -0.200

2.700 0.210 0.180 -0.190

2.500 0.420 0.360 -0.190

2.300 0.630 0.570 -0.190

2.100 0.840 0.780 -0.190

AVES 97-717 IAS OGA + 93 + 19 UPPER WFS NOZZLE

(FBMS57) ( 10 MAY 73 )

## REFERENCE DATA

WREF = 2.4211 SQ.FT. AREF = 24.9314 INCHES  
 WREF = 39.8499 INCHES WREF = 1.1111 INCHES  
 WREF = 39.8499 INCHES ZREF = 1.1111 INCHES  
 SCALE = 1.0000 SCALE

## PARAMETRIC DATA

ALPHA\* = 2.1111 OBBINC = .9111  
 B\*COEF = 1.1111 ELEVON = 1.1111  
 C\*COEF = 1.1111

## SECTION ( 1 ) WFS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETA\* ( 1 ) = -0.420

WFS	1/10P	.250	.500	.750
1.000	-0.1540	-0.1590	-0.1590	-0.1590
2.000	-0.1590	-0.1590	-0.1590	-0.1590
3.000	-0.1590	-0.1590	-0.1590	-0.1590
4.000	-0.1590	-0.1590	-0.1590	-0.1590
5.000	-0.1590	-0.1590	-0.1590	-0.1590
6.000	-0.1590	-0.1590	-0.1590	-0.1590
7.000	-0.1590	-0.1590	-0.1590	-0.1590

MACH ( 1 ) = 2.498 BETA\* ( 2 ) = -0.315

WFS	1/10P	.250	.500	.750
1.000	-0.1510	-0.1540	-0.1540	-0.1590
2.000	-0.1590	-0.1590	-0.1590	-0.1590
3.000	-0.1590	-0.1590	-0.1590	-0.1590
4.000	-0.1590	-0.1590	-0.1590	-0.1590
5.000	-0.1590	-0.1590	-0.1590	-0.1590
6.000	-0.1590	-0.1590	-0.1590	-0.1590
7.000	-0.1590	-0.1590	-0.1590	-0.1590

MACH ( 1 ) = 2.498 BETA\* ( 3 ) = -0.159

WFS	1/10P	.250	.500	.750
1.000	-0.1510	-0.1590	-0.1590	-0.1590
2.000	-0.1590	-0.1590	-0.1590	-0.1590
3.000	-0.1590	-0.1590	-0.1590	-0.1590
4.000	-0.1590	-0.1590	-0.1590	-0.1590
5.000	-0.1590	-0.1590	-0.1590	-0.1590
6.000	-0.1590	-0.1590	-0.1590	-0.1590
7.000	-0.1590	-0.1590	-0.1590	-0.1590

MACH ( 1 ) = 2.498 BETA\* ( 4 ) = -0.146

WFS	1/10P	.250	.500	.750
1.000	-0.1510	-0.1510	-0.1510	-0.1510
2.000	-0.1590	-0.1590	-0.1590	-0.1590
3.000	-0.1590	-0.1590	-0.1590	-0.1590
4.000	-0.1590	-0.1590	-0.1590	-0.1590
5.000	-0.1590	-0.1590	-0.1590	-0.1590
6.000	-0.1590	-0.1590	-0.1590	-0.1590
7.000	-0.1590	-0.1590	-0.1590	-0.1590

MACH ( 1 ) = 2.498 BETA\* ( 5 ) = 2.117

WFS	1/10P	.250	.500	.750
1.000	-0.1440	-0.1470	-0.1470	-0.1470
2.000	-0.1470	-0.1470	-0.1470	-0.1470
3.000	-0.1470	-0.1470	-0.1470	-0.1470
4.000	-0.1470	-0.1470	-0.1470	-0.1470
5.000	-0.1470	-0.1470	-0.1470	-0.1470
6.000	-0.1470	-0.1470	-0.1470	-0.1470
7.000	-0.1470	-0.1470	-0.1470	-0.1470

AMES 87-717 IA9 O&amp;A + S3 + T9 UPPER MPS NOZZLE

(RBN0-7)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CF

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.171  
 X/LNF .250 .510 .750  
 PHI  
 270.166 -0.1510 -0.1470 -0.1480

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.290  
 X/LNF .250 .510 .750  
 PHI  
 .166 -0.1960 -0.1510  
 90.166 -0.1530 -0.1530 -0.1510  
 135.166 -0.1620 -0.1540 -0.1520  
 180.166 .1660 -0.1670 -0.1560  
 225.166 -0.1280 -0.1510 -0.1570  
 270.166 -0.1510 -0.1510 -0.1560

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.410  
 X/LNF .250 .510 .750  
 PHI  
 .166 -0.1510 -0.1560  
 90.166 -0.1560 -0.1560 -0.1540  
 135.166 -0.1670 -0.1580 -0.1540  
 180.166 .1630 -0.1580 -0.1590  
 225.166 -0.1290 -0.1530 -0.1620  
 270.166 -0.1540 -0.1570 -0.1540

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.540  
 X/LNF .250 .510 .750  
 PHI  
 .166 -0.1540 -0.1560  
 90.166 -0.1580 -0.1570 -0.1570  
 135.166 -0.1710 -0.1640 -0.1590  
 180.166 -0.1650 -0.1680 -0.1680  
 225.166 -0.1310 -0.1470 -0.1650  
 270.166 -0.1570 -0.1590 -0.1560

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.590  
 X/LNF .250 .510 .750  
 PHI  
 .166 -0.1140 -0.1170  
 90.166 -0.1160 -0.1180 -0.1180  
 135.166 -0.1080 -0.1070 -0.1190  
 180.166 -0.1130 -0.1140 -0.1220  
 225.166 -0.1220 -0.1170 -0.1190  
 270.166 -0.1190 -0.1180 -0.1180

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.420  
 X/LNF .250 .510 .750  
 PHI  
 .166 -0.10750 -0.1170  
 90.166 -0.1080 -0.1200 -0.1170  
 135.166 -0.1070 -0.1140 -0.1160  
 180.166 -0.1150 -0.1140 -0.1160  
 225.166 -0.1170 -0.1190 -0.1180

## TABULATED PRESSURE DATA - IABC

AMES 87-757 IAS OCA + S3 + T9 UPPER MPS NOZZLE

(RBNC07)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.420

X/LNF	.250	.500	.750
PHI			
270.000	-.1190	-.1180	-.1190

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.270

X/LNF	.250	.500	.750
PHI			
.000	-.1150	-.1200	
90.000	-.1200	-.1200	-.1190
135.000	-.1080	-.1020	-.1210
180.000	-.0460	-.0180	-.1190
225.000	-.1280	-.1010	-.1200
270.000	-.1210	-.1190	-.1190

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.110

X/LNF	.250	.500	.750
PHI			
.000	-.1120	-.1170	
90.000	-.1180	-.1170	-.1160
135.000	-.1090	-.1020	-.1200
180.000	-.0360	-.0680	-.1130
225.000	-.1200	-.1090	-.1210
270.000	-.1180	-.1170	-.1170

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.210

X/LNF	.250	.500	.750
PHI			
.000	-.1140	-.1160	
90.000	-.1160	-.1140	-.1170
135.000	-.1290	-.0990	-.1210
180.000	-.0070	-.0370	-.1120
225.000	-.1090	-.0900	-.1180
270.000	-.1160	-.1170	-.1160

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.370

X/LNF	.250	.500	.750
PHI			
.000	-.1160	-.1180	
90.000	-.1200	-.1190	-.1170
135.000	-.1180	-.0900	-.1200
180.000	-.0280	-.0280	-.1160
225.000	-.0840	-.1030	-.1190
270.000	-.1190	-.1170	-.1180

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.530

X/LNF	.250	.500	.750
PHI			
.000	-.1110	-.1140	
90.000	-.1150	-.1140	-.1150
135.000	-.1050	-.1160	-.1140
180.000	-.0110	-.0340	-.1170
225.000	-.0940	-.1010	-.1190



## AMES 87-707 IAS 700 + S3 + T9 UPPER MPS NOZZLE

(RBNDJ77)

## SECTION / 1) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.530  
 X/LNF .250 .500 .750  
 PHI  
 270.000 -0.1160 -0.1160 -0.1160

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 6.690  
 X/LNF .250 .500 .750  
 PHI  
 90.000 -0.1120 -0.1150  
 90.000 -0.1160 -0.1160 -0.1160  
 135.000 -0.1260 -0.1270 -0.1160  
 180.000 .0260 .0220 -0.1220  
 225.000 -0.0970 -0.0970 -0.1230  
 270.000 -0.1170 -0.1180 -0.1150

MACH ( 2 ) = 3.502 BETAT ( 1 ) = -6.130  
 X/LNF .250 .500 .750  
 PHI  
 0.000 -0.0910 -0.1040  
 90.000 -0.1030 -0.1050 -0.1020  
 135.000 -0.0660 -0.0670 -0.1040  
 180.000 -0.0550 -0.0550 -0.1040  
 225.000 -0.1000 -0.1000 -0.1050  
 270.000 -0.1020 -0.1050 -0.1030

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.540  
 X/LNF .250 .500 .750  
 PHI  
 0.000 -0.0910 -0.1020  
 90.000 -0.1000 -0.1030 -0.1020  
 135.000 -0.0620 -0.0720 -0.1020  
 180.000 -0.0370 -0.0370 -0.1020  
 225.000 -0.0920 -0.0920 -0.1020  
 270.000 -0.1030 -0.1020 -0.1020

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.340  
 X/LNF .250 .500 .750  
 PHI  
 0.000 -0.0910 -0.1040  
 90.000 -0.1040 -0.1050 -0.1040  
 135.000 -0.0630 -0.0690 -0.1050  
 180.000 .0440 .0420 -0.1020  
 225.000 -0.0980 -0.0770 -0.1060  
 270.000 -0.1050 -0.1030 -0.1040

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.040  
 X/LNF .250 .500 .750  
 PHI  
 0.000 -0.0890 -0.0990  
 90.000 -0.1000 -0.1020 -0.0990  
 135.000 -0.0610 -0.0670 -0.1030  
 180.000 .0260 .0260 -0.0990  
 225.000 -0.0940 -0.0870 -0.1030

AMES 87-757 1A9 OZA + S3 + T9 UPPER MPS NOZZLE

(RBND517)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.512 BETAT ( 4 ) = -2.114

	X/LNF	.250	.500	.750
PHI	275.144	-.1110	-.1980	-.1980

MACH ( 3 ) = 3.512 BETAT ( 5 ) = 2.250

	X/LNF	.250	.500	.750
PHI	.144	-.1610	-.1120	
	95.144	-.1110	-.1130	-.1144
	135.144	-.1870	-.1710	-.1050
	185.144	.1380	-.1230	-.1090
	225.144	-.1460	-.1680	-.1150
	275.144	-.1130	-.1110	-.1144

MACH ( 3 ) = 3.512 BETAT ( 6 ) = 4.460

	X/LNF	.250	.500	.750
PHI	.144	-.1094	-.1110	
	95.144	-.1110	-.1110	-.1120
	135.144	-.1810	-.1570	-.1130
	185.144	.1420	.1150	-.1090
	225.144	-.1640	-.1490	-.1070
	275.144	-.1090	-.1080	-.1110

MACH ( 3 ) = 3.512 BETAT ( 7 ) = 6.660

	X/LNF	.250	.500	.750
PHI	.144	-.1090	-.1140	
	95.144	-.1130	-.1130	-.1130
	135.144	-.1110	-.1170	-.1150
	185.144	-.1110	-.1160	-.1160
	225.144	-.1070	-.1060	-.1150
	275.144	-.1110	-.1110	-.1130

MACH ( 3 ) = 3.512 BETAT ( 8 ) = 8.890

	X/LNF	.250	.500	.750
PHI	.144	-.1610	-.1150	
	95.144	-.1110	-.1130	-.1140
	135.144	-.1180	-.1160	-.1130
	185.144	-.1160	.1130	-.1150
	225.144	-.1070	-.1120	-.1150
	275.144	-.1110	-.1130	-.1130

DATE 10 SEP 73

TABULATED PRESSURE DATA - IABC

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AMES 07-717 IAS O2A + S3 + T9 UPPER MPS NOZZLE

(RBND:R) ( 11 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.    WMPF = 20.5300 INCHES  
 LREF = 39.8490 INCHES    WMRP = 0.0000 INCHES  
 BREF = 39.8490 INCHES    ZMRP = 0.0000 INCHES  
 SCALE = 0.0300 SCALE

## PARAMETRIC DATA

ALPHAT = 4.0000    ORBINC = 0.5000  
 RUDDER = 0.0000    ELEVON = 0.0000  
 RUDDLR = 0.0000

## DEPENDENT VARIABLE CP

SECTION ( 1 ) MPS NOZZLE

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	X/LRF	.250	.500	.750
		PHI			
		0.000	-.1590	-.1620	
		90.000	-.1610	-.1650	-.1650
		135.000	-.1420	-.1510	-.1670
		180.000	-.0720	-.0920	-.1700
		225.000	-.1780	-.1650	-.1640
		270.000	-.1670	-.1640	-.1640

MACH ( 1 ) = 2.498    BETAT ( 2 ) = -6.300

X/LRF	.250	.500	.750
PHI			
0.000	-.1540	-.1590	
90.000	-.1570	-.1580	-.1590
135.000	-.1390	-.1490	-.1640
180.000	-.0370	-.0420	-.1600
225.000	-.1700	-.1640	-.1590
270.000	-.1630	-.1600	-.1590

MACH ( 1 ) = 2.498    BETAT ( 3 ) = -4.190

X/LRF	.250	.500	.750
PHI			
0.000	-.1540	-.1540	
90.000	-.1570	-.1560	-.1550
135.000	-.1290	-.1520	-.1590
180.000	-.0180	-.0680	-.1580
225.000	-.1620	-.1600	-.1570
270.000	-.1570	-.1550	-.1530

MACH ( 1 ) = 2.498    BETAT ( 4 ) = -2.070

X/LRF	.250	.500	.750
PHI			
0.000	-.1490	-.1420	
90.000	-.1510	-.1500	-.1500
135.000	-.1430	-.1270	-.1540
180.000	-.0150	-.0730	-.1510
225.000	-.1600	-.1490	-.1560
270.000	-.1530	-.1470	-.1510

MACH ( 1 ) = 2.498    BETAT ( 5 ) = 2.170

X/LRF	.250	.500	.750
PHI			
0.000	-.1470	-.1510	
90.000	-.1520	-.1500	-.1510
135.000	-.1700	-.1400	-.1520
180.000	-.0230	-.0620	-.1530
225.000	-.1440	-.1470	-.1550

AMES 87-717 IA9 O2A + S3 + T9 UPPER MPS NOZZLE

(RND218)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.175	X/LNF	.250	.500	.750
		PHI			
		270.000	-.1550	-.1510	-.1520
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.310	X/LNF	.250	.500	.750
		PHI			
		.000	-.1530	-.1550	
		90.000	-.1580	-.1560	-.1560
		135.000	-.1660	-.1580	-.1560
		180.000	-.1460	-.1820	-.1560
		225.000	-.1320	-.1560	-.1640
		270.000	-.1580	-.1550	-.1530
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.420	X/LNF	.250	.500	.750
		PHI			
		.000	-.1550	-.1570	
		90.000	-.1610	-.1590	-.1590
		135.000	-.1720	-.1620	-.1610
		180.000	-.1440	-.1560	-.1640
		225.000	-.1510	-.1590	-.1690
		270.000	-.1620	-.1600	-.1590
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.550	X/LNF	.250	.500	.750
		PHI			
		.000	-.1580	-.1620	
		90.000	-.1650	-.1640	-.1630
		135.000	-.1750	-.1680	-.1640
		180.000	-.1340	-.1600	-.1700
		225.000	-.1440	-.1570	-.1710
		270.000	-.1630	-.1650	-.1650
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.580	X/LNF	.250	.500	.750
		PHI			
		.000	-.1180	-.1200	
		90.000	-.1220	-.1220	-.1220
		135.000	-.1100	-.1160	-.1250
		180.000	-.1090	-.1000	-.1240
		225.000	-.1220	-.1240	-.1230
		270.000	-.1220	-.1210	-.1230
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.420	X/LNF	.250	.500	.750
		PHI			
		.000	-.0770	-.1210	
		90.000	-.0910	-.1200	-.0900
		135.000	-.0920	-.1070	-.0880
		180.000	-.0190	-.0340	-.0880
		225.000	-.1320	-.0880	-.0880

AMES 87-707 IA9 O2A + S3 + T9 UPPER MPS NOZZLE

(RBND:8)

SECTION ( )	MPS NOZZLE	DEPENDENT VARIABLE CP	
MACH ( 2 ) =	2.999 BETAT ( 2 ) = -6.420	X/LNP	.250 .500 .750
		PHI	
		270.000	-.1220 -.0900 -.0880
MACH ( 2 ) =	2.099 BETAT ( 3 ) = -4.260	X/LNP	.250 .500 .750
		PHI	
		.000	-.0810 -.1180
		90.000	-.0790 -.1200 -.1000
		135.000	-.0780 -.1130 -.0990
		180.000	.0220 -.0170 -.0980
		225.000	-.1280 -.0990 -.0980
		270.000	-.1200 -.1000 -.0980
MACH ( 2 ) =	2.999 BETAT ( 4 ) = -2.100	X/LNP	.250 .500 .750
		PHI	
		.000	-.1120 -.1160
		90.000	-.1150 -.1150 -.1180
		135.000	-.0920 -.0730 -.1160
		180.000	.0160 -.0260 -.1140
		225.000	-.1200 -.1100 -.1170
		270.000	-.1170 -.1160 -.1160
MACH ( 2 ) =	2.999 BETAT ( 5 ) = 2.210	X/LNP	.250 .500 .750
		PHI	
		.000	-.1140 -.1160
		90.000	-.1160 -.1160 -.1160
		135.000	-.1290 -.0140 -.1190
		180.000	.0030 -.0480 -.1160
		225.000	-.0980 -.0880 -.1160
		270.000	-.1160 -.1150 -.1160
MACH ( 2 ) =	2.999 BETAT ( 6 ) = 4.370	X/LNP	.250 .500 .750
		PHI	
		.000	-.1150 -.1190
		90.000	-.1210 -.1210 -.1200
		135.000	-.1250 -.1010 -.1220
		180.000	.0000 -.0480 -.1160
		225.000	-.0930 -.1100 -.1230
		270.000	-.1190 -.1200 -.1180
MACH ( 2 ) =	2.999 BETAT ( 7 ) = 6.340	X/LNP	.250 .500 .750
		PHI	
		.000	-.1170 -.1180
		90.000	-.1190 -.1190 -.1190
		135.000	-.1210 -.1150 -.1210
		180.000	-.0100 -.0460 -.1150
		225.000	-.0990 -.1180 -.1220

AMES 87-707 IAD OCA + S3 + T9 UPPER MPS NOZZLE

(RBN016)

## SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.540

X/LNP	.250	.500	.750
PHI			
270.000	-.1210	-.1200	-.1180

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 8.750

X/LNP	.250	.500	.750
PHI			
.000	-.1160	-.1200	
90.000	-.1210	-.1200	-.1200
135.000	-.1280	-.1230	-.1210
180.000	-.1090	-.1090	-.1250
225.000	-.1040	-.1140	-.1250
270.000	-.1190	-.1220	-.1220

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.720

X/LNP	.250	.500	.750
PHI			
.000	-.1880	-.1040	
90.000	-.1990	-.1000	-.1040
135.000	-.1710	-.1620	-.1130
180.000	-.1240	-.1410	-.1040
225.000	-.1040	-.1120	-.1030
270.000	-.1140	-.1120	-.1040

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.530

X/LNP	.250	.500	.750
PHI			
.000	-.1870	-.1690	
90.000	-.1980	-.1510	-.1010
135.000	-.1710	-.1710	-.1690
180.000	-.1230	-.1430	-.1690
225.000	-.1970	-.1970	-.1100
270.000	-.1010	-.1690	-.1690

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330

X/LNP	.250	.500	.750
PHI			
.000	-.1690	-.1100	
90.000	-.1000	-.1000	-.1690
135.000	-.1690	-.1860	-.1690
180.000	-.1200	-.1130	-.1040
225.000	-.1010	-.1810	-.1040
270.000	-.1000	-.1010	-.1030

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140

X/LNP	.250	.500	.750
PHI			
.000	-.1860	-.1980	
90.000	-.1970	-.1040	-.1980
135.000	-.1660	-.1970	-.1040
180.000	-.1170	-.1060	-.1690
225.000	-.1980	-.1920	-.1980

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TABULATED PRESSURE DATA - IA9C  
AMES 87-707 IA9 OZA + S3 + T9 UPPER MPS NOZZLE

(RBND:8)

## SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140

X/LNP	.250	.500	.750
FHI			
270.1400	-.10600	-.09800	-.09500

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260

X/LNP	.250	.500	.750
FHI			
.0000	-.09400	-.10400	
90.0000	-.10200	-.10500	-.10400
135.1400	-.10500	-.08700	-.10500
180.1400	-.09100	-.10200	-.10400
225.1400	-.07700	-.05000	-.10400
270.1400	-.10900	-.11400	-.10900

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.460

X/LNP	.250	.500	.750
FHI			
.0000	-.09200	-.10300	
90.1400	-.10400	-.10900	-.10400
135.1400	-.09200	-.07700	-.10600
180.1400	-.01300	-.02200	-.09900
225.1400	-.07400	-.08100	-.10300
270.1400	-.10200	-.10200	-.10400

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.660

X/LNP	.250	.500	.750
FHI			
.0000	-.09200	-.10300	
90.1400	-.10200	-.10000	-.10300
135.1400	-.08700	-.10400	-.10300
180.1400	-.09100	-.10400	-.10600
225.1400	-.08300	-.07700	-.10300
270.1400	-.10300	-.10000	-.10400

MACH ( 3 ) = 3.502 BETAT ( 8 ) = 8.860

X/LNP	.250	.500	.750
FHI			
.0000	-.09300	-.10400	
90.1400	-.10400	-.10600	-.10400
135.1400	-.10900	-.10600	-.10600
180.1400	-.09200	-.09200	-.10800
225.1400	-.08300	-.08400	-.10800
270.1400	-.10300	-.10300	-.10400

AVES 87-707 1A9 02A + S3 + T9 UPPER MPS NOZZLE

(RND009) ( 10 MAY 73 )

## REFERENCE DATA

XREF = 2.4210 90.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.410

X/LNP	.250	.500	.750
PHI			
.000	-.1590	-.1620	
90.000	-.1630	-.1660	-.1640
135.000	-.1550	-.1570	-.1700
180.000	-.0840	-.0650	-.1690
225.000	-.1800	-.1690	-.1660
270.000	-.1670	-.1690	-.1640

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.290

X/LNP	.250	.500	.750
PHI			
.000	-.1600	-.1620	
90.000	-.1630	-.1630	-.1620
135.000	-.1540	-.1560	-.1690
180.000	-.0540	-.0710	-.1620
225.000	-.1740	-.1700	-.1650
270.000	-.1640	-.1620	-.1640

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.170

X/LNP	.250	.500	.750
PHI			
.000	-.1520	-.1540	
90.000	-.1580	-.1560	-.1530
135.000	-.1390	-.1510	-.1590
180.000	-.0070	-.0460	-.1560
225.000	-.1640	-.1610	-.1570
270.000	-.1590	-.1570	-.1560

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.060

X/LNP	.250	.500	.750
PHI			
.000	-.1490	-.1510	
90.000	-.1500	-.1520	-.1510
135.000	-.1440	-.1480	-.1530
180.000	.0240	-.0700	-.1540
225.000	-.1610	-.1530	-.1590
270.000	-.1900	-.1480	-.1900

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180

X/LNP	.250	.500	.750
PHI			
.000	-.1490	-.1510	
90.000	-.1530	-.1530	-.1510
135.000	-.1730	-.1470	-.1550
180.000	-.0290	-.0710	-.1570
225.000	-.1450	-.1590	-.1

## PARAMETRIC DATA

ALPHAT = 6.000 ORBINC = .500  
 RUDDER = .000 ELEWON = .000  
 RUOFLR = .000



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TABULATED PRESSURE DATA - IASC  
AMES 87-707 IAS OCA + S3 + T9 UPPER MPS NOZZLE

(RBN01:9)

SECTION ( 1 ) MPS NOZZLE	DEPENDENT VARIABLE CP			
MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180	X/LNP	.250	.500	.750
	PHI			
	270.000	-.1560	-.1540	-.1550
MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.300	X/LNP	.250	.500	.750
	PHI			
	.000	-.1530	-.1560	
	90.000	-.1610	-.1580	-.1580
	135.000	-.1690	-.1630	-.1670
	180.000	-.1770	-.1580	-.1550
	225.000	-.1460	-.1580	-.1640
	270.000	-.1580	-.1570	-.1550
MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.440	X/LNP	.250	.500	.750
	PHI			
	.000	-.1570	-.1590	
	90.000	-.1610	-.1610	-.1610
	135.000	-.1690	-.1620	-.1620
	180.000	-.1750	-.1680	-.1640
	225.000	-.1560	-.1610	-.1650
	270.000	-.1610	-.1610	-.1580
MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.570	X/LNP	.250	.500	.750
	PHI			
	.000	-.1630	-.1650	
	90.000	-.1650	-.1650	-.1650
	135.000	-.1800	-.1710	-.1660
	180.000	-.1960	-.1940	-.1710
	225.000	-.1540	-.1630	-.1710
	270.000	-.1650	-.1660	-.1630
MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.560	X/LNP	.250	.500	.750
	PHI			
	.000	-.1220	-.1260	
	90.000	-.1250	-.1270	-.1260
	135.000	-.1100	-.1100	-.1290
	180.000	-.0920	-.0610	-.1250
	225.000	-.1320	-.1290	-.1280
	270.000	-.1270	-.1270	-.1250
MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.400	X/LNP	.250	.500	.750
	PHI			
	.000	-.1180	-.1230	
	90.000	-.1220	-.1220	-.1240
	135.000	-.1120	-.1130	-.1250
	180.000	-.0920	-.0920	-.1260
	225.000	-.1310	-.1200	-.1250

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TABULATED PRESSURE DATA - IASC  
AMES 87-707 IAS OSA + S3 + T9 UPPER MPS NOZZLE

(RENDUS)

SECTION ( 1 ) MPS NOZZLE	DEPENDENT VARIABLE CP	X/LNP	.250	.500	.750
MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.400	PHI	270.000	-.1240	-.1220	-.1210
	X/LNP	.250	.500	.750	
	PHI	.000	-.1170	-.1200	
	90.000	-.1210	-.1200	-.1190	
	135.000	-.1160	-.1110	-.1200	
MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.230	PHI	180.000	-.1370	-.1370	-.1200
	X/LNP	.250	.500	.750	
	PHI	225.000	-.1270	-.1140	-.1210
	270.000	-.1220	-.1210	-.1210	
	X/LNP	.250	.500	.750	
MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.100	PHI	.000	-.1140	-.1160	
	90.000	-.1170	-.1160	-.1210	
	135.000	-.1130	-.1160	-.1200	
	180.000	-.0940	-.0410	-.1160	
	225.000	-.1230	-.1160	-.1190	
MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.210	PHI	270.000	-.1210	-.1180	-.1170
	X/LNP	.250	.500	.750	
	PHI	.000	-.1140	-.1190	
	90.000	-.1160	-.1170	-.1200	
	135.000	-.1230	-.1150	-.1210	
MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.300	PHI	180.000	-.1470	-.1170	
	X/LNP	.250	.500	.750	
	PHI	225.000	-.1110	-.1190	-.1210
	270.000	-.1180	-.1210	-.1190	
	X/LNP	.250	.500	.750	
MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.350	PHI	.000	-.1210	-.1250	
	90.000	-.1230	-.1240	-.1250	
	135.000	-.1270	-.1160	-.1260	
	180.000	-.0180	-.0560	-.1210	
	225.000	-.1070	-.1110	-.1270	
MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.350	PHI	270.000	-.1240	-.1250	-.1240
	X/LNP	.250	.500	.750	
	PHI	.000	-.1160	-.1220	
	90.000	-.1250	-.1230	-.1220	
	135.000	-.1320	-.1180	-.1260	
180.000	-.0300	-.0550	-.1210		
225.000	-.1180	-.1220	-.1270		

DATE 18 SEP 73

TABULATED PRESSURE DATA - IA9C  
AMES 87-707 IA9 OR2 + S3 + T9 UPPER MPS NOZZLE

(RBNDU9)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.950 X/LNP .250 .500 .750  
PHI  
270.000 -.1230 -.1230 -.1230 -.1220

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 8.720 X/LNP .250 .500 .750  
PHI  
.000  
90.000 -.1240 -.1240 -.1250  
135.000 -.1300 -.1280 -.1240  
180.000 -.0260 -.0820 -.1230  
225.000 -.1160 -.1200 -.1270  
270.000 -.1240 -.1250 -.1240

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.710 X/LNP .250 .500 .750  
PHI  
.000  
90.000 -.1070 -.1070  
135.000 -.0860 -.0850 -.1100  
180.000 -.0480 -.0580 -.1080  
225.000 -.1080 -.1080 -.1080  
270.000 -.1080 -.1080 -.1080

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.510 X/LNP .250 .500 .750  
PHI  
.000  
90.000 -.1020 -.1020  
135.000 -.0840 -.0840 -.1090  
180.000 -.0970 -.0410 -.1020  
225.000 -.1070 -.1030 -.1050  
270.000 -.1070 -.1040 -.1040

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.320 X/LNP .250 .500 .750  
PHI  
.000  
90.000 -.0920 -.1040  
135.000 -.0810 -.0940 -.1060  
180.000 -.0210 -.0260 -.1040  
225.000 -.1090 -.0950 -.1080  
270.000 -.1090 -.1070 -.1070

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.130 X/LNP .250 .500 .750  
PHI  
.000  
90.000 -.0920 -.1030  
135.000 -.1040 -.1040 -.1040  
180.000 -.0810 -.0840 -.1060  
225.000 -.0140 -.0360 -.1040  
270.000 -.1040 -.1020 -.1080

AWES 07-707 IAG OZA + S3 + T9 UPPER MPS NOZZLE

(REND009)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.130	X/LNP	.250	.500	.750
PHI					
		270.000	-.1040	-.1040	-.1040
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	X/LNP	.250	.500	.750
PHI					
		.000	-.0870	-.0980	
		90.000	-.0980	-.0980	-.0990
		135.000	-.1010	-.0940	-.1020
		180.000	-.0900	-.0950	-.0960
		225.000	-.0770	-.0860	-.1010
		270.000	-.0990	-.0990	-.0990
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.470	X/LNP	.250	.500	.750
PHI					
		.000	-.0930	-.1040	
		90.000	-.1030	-.1040	-.1060
		135.000	-.0900	-.0750	-.1060
		180.000	-.1020	-.0370	-.1010
		225.000	-.0840	-.0890	-.1040
		270.000	-.1040	-.1020	-.1040
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.670	X/LNP	.250	.500	.750
PHI					
		.000	-.0930	-.1030	
		90.000	-.1030	-.1020	-.1030
		135.000	-.1010	-.0960	-.1040
		180.000	-.0290	-.0370	-.1010
		225.000	-.0920	-.0960	-.1050
		270.000	-.1030	-.1030	-.1030
MACH ( 3 ) = 3.502	BETAT ( 8 ) = 8.880	X/LNP	.250	.500	.750
PHI					
		.000	-.0950	-.1090	
		90.000	-.1080	-.1080	-.1080
		135.000	-.1090	-.1080	-.1100
		180.000	-.0270	-.0720	-.1080
		225.000	-.0930	-.0940	-.1110
		270.000	-.1080	-.1070	-.1080

AMES 87-707 1A9 OEA + S3 + T9 UPPER WFS NOZZLE

(RBND10) ( 10 MAY 73 )

## REFERENCE DATA

SWEP = 2.4210 SQ.FT. XWRP = 26.5300 INCHES  
 LREF = 39.8490 INCHES YWRP = 0.0000 INCHES  
 BREF = 39.8490 INCHES ZWRP = 0.0000 INCHES  
 SCALE = 0.0370 SCALE

## SECTION ( 1 ) WFS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -0.380

	X/LNP	.250	.500	.750
PHI	.000	-.1630	-.1670	
	90.000	-.1670	-.1680	-.1680
	135.000	-.1540	-.1580	-.1710
	180.000	-.0820	-.0910	-.1680
	225.000	-.1740	-.1720	-.1690
	270.000	-.1670	-.1690	-.1690

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -0.270

	X/LNP	.250	.500	.750
PHI	.000	-.1580	-.1610	
	90.000	-.1620	-.1640	-.1630
	135.000	-.1510	-.1520	-.1660
	180.000	-.0580	-.0760	-.1610
	225.000	-.1710	-.1680	-.1620
	270.000	-.1690	-.1620	-.1620

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.170

	X/LNP	.250	.500	.750
PHI	.000	-.1520	-.1540	
	90.000	-.1580	-.1540	-.1590
	135.000	-.1440	-.1540	-.1590
	180.000	-.0210	-.0440	-.1540
	225.000	-.1650	-.1590	-.1570
	270.000	-.1580	-.1550	-.1570

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.060

	X/LNP	.250	.500	.750
PHI	.000	-.1520	-.1550	
	90.000	-.1560	-.1560	-.1590
	135.000	-.1470	-.1570	-.1570
	180.000	-.0070	-.0710	-.1560
	225.000	-.1680	-.1570	-.1570
	270.000	-.1570	-.1540	-.1590

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180

	X/LNP	.250	.500	.750
PHI	.000	-.1530	-.1540	
	90.000	-.1540	-.1540	-.1510
	135.000	-.1710	-.1490	-.1570
	180.000	-.0310	-.0740	-.1590
	225.000	-.1430	-.1590	-.1570

## PARAMETRIC DATA

ALPHAT = 0.000 CRBTNC = 0.000  
 RUDDER = 0.000 ELEVON = 0.000  
 RUDFLR = 0.000

## AMES 97-707 IAS O2A + S3 + T9 UPPER MPS NOZZLE

(R0ND10)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	X/LNP	.250	.500	.750
		PHI			
		270.000	-.1540	-.1550	-.1550
		X/LNP	.250	.500	.750
		PHI			
		.000	-.1550	-.1540	
		90.000	-.1580	-.1580	-.1560
		135.000	-.1650	-.1590	-.1600
		180.000	-.1280	-.1470	-.1570
		225.000	-.1590	-.1580	-.1590
		270.000	-.1590	-.1555	-.1540
		X/LNP	.250	.500	.750
		PHI			
		.000	-.1610	-.1630	
		90.000	-.1660	-.1650	-.1640
		135.000	-.1720	-.1630	-.1680
		180.000	-.0580	-.1630	-.1680
		225.000	-.1650	-.1610	-.1680
		270.000	-.1650	-.1650	-.1610
		X/LNP	.250	.500	.750
		PHI			
		.000	-.1630	-.1670	
		90.000	-.1700	-.1680	-.1680
		135.000	-.1770	-.1740	-.1690
		180.000	-.0780	-.1120	-.1720
		225.000	-.1660	-.1650	-.1680
		270.000	-.1670	-.1670	-.1650
		X/LNP	.250	.500	.750
		PHI			
		.000	-.1210	-.1260	
		90.000	-.1250	-.1250	-.1280
		135.000	-.1160	-.1120	-.1260
		180.000	-.0720	-.0720	-.1270
		225.000	-.1260	-.1280	-.1260
		270.000	-.1280	-.1260	-.1270
		X/LNP	.250	.500	.750
		PHI			
		.000	-.1200	-.1220	
		90.000	-.1230	-.1230	-.1230
		135.000	-.1200	-.1180	-.1260
		180.000	-.1410	-.0520	-.1230
		225.000	-.1270	-.1240	-.1260

MACH ( 1 ) = 2.4 BETAT ( 7 ) = 6.450

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.580

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.540

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -8.390

AXES 87-757 IAS ORA + S3 + T9 UPPER MPS NOZZLE

(RBND10)

## SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.390	X/LNF	.250	.500	.750
		PHI			
		270.000	-.1250	-.1260	-.1250
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.240	X/LNF	.250	.500	.750
		PHI			
		.000	-.1200	-.1240	
		90.000	-.1230	-.1220	-.1250
		135.000	-.1020	-.1180	-.1260
		180.000	-.0180	-.0390	-.1220
		225.000	-.1280	-.1170	-.1260
		270.000	-.1230	-.1230	-.1240
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.080	X/LNF	.250	.500	.750
		PHI			
		.000	-.1150	-.1190	
		90.000	-.1200	-.1200	-.1210
		135.000	-.1070	-.1170	-.1210
		180.000	-.0210	-.0470	-.1190
		225.000	-.1260	-.1200	-.1230
		270.000	-.1220	-.1210	-.1200
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.230	X/LNF	.250	.500	.750
		PHI			
		.000	-.1150	-.1200	
		90.000	-.1210	-.1180	-.1210
		135.000	-.1310	-.1160	-.1210
		180.000	-.0310	-.0560	-.1190
		225.000	-.1130	-.1210	-.1230
		270.000	-.1210	-.1210	-.1210
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.400	X/LNF	.250	.500	.750
		PHI			
		.000	-.1160	-.1210	
		90.000	-.1190	-.1200	-.1190
		135.000	-.1250	-.1080	-.1230
		180.000	-.0220	-.0270	-.1210
		225.000	-.1100	-.1180	-.1240
		270.000	-.1210	-.1210	-.1210
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.570	X/LNF	.250	.500	.750
		PHI			
		.000	-.1180	-.1240	
		90.000	-.1250	-.1250	-.1250
		135.000	-.1210	-.1250	-.1250
		180.000	-.0450	-.0610	-.1250
		225.000	-.1260	-.1240	-.1270

AMES 87-707 IA9 OCA + S3 + T9 UPPER MPS NOZZLE

(RBN010)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CF

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.570 X/LNP .250 .500 .750  
 PHI  
 270.000 -.1260 -.1260 -.1260 -.1250

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 6.740 X/LNP .250 .500 .750  
 PHI  
 .000 -.1200 -.1240  
 90.000 -.1260 -.1260 -.1260  
 135.000 -.1280 -.1280 -.1280  
 180.000 -.0520 -.1060 -.1260  
 225.000 -.1210 -.1190 -.1270  
 270.000 -.1240 -.1240 -.1220

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -6.680 X/LNP .250 .500 .750  
 PHI  
 .000 -.0910 -.1030  
 90.000 -.1010 -.1040 -.1020  
 135.000 -.1090 -.1090 -.1050  
 180.000 -.0550 -.1600 -.1050  
 225.000 -.1050 -.1020 -.1050  
 270.000 -.1050 -.1050 -.1050

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.500 X/LNP .250 .500 .750  
 PHI  
 .000 -.1040 -.1050  
 90.000 -.1040 -.1040 -.1040  
 135.000 -.1040 -.1060 -.1060  
 180.000 -.1020 -.0910 -.1040  
 225.000 -.1040 -.1010 -.1050  
 270.000 -.1030 -.1040 -.1030

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.310 X/LNP .250 .500 .750  
 PHI  
 .000 -.1030 -.1060  
 90.000 -.1040 -.1050 -.1050  
 135.000 -.1050 -.1050 -.1070  
 180.000 -.1020 -.1020 -.1050  
 225.000 -.1030 -.1030 -.1050  
 270.000 -.1050 -.1030 -.1050

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.130 X/LNP .250 .500 .750  
 PHI  
 .000 .0920 -.1020  
 90.000 -.1030 -.1020 -.1030  
 135.000 -.1070 -.1070 -.1050  
 180.000 -.0270 -.0410 -.1040  
 225.000 -.1040 -.1030 -.1050



## AMES 87-717 IAS OEA + S3 + T9 UPPER MPS NOZZLE

(RBNC10)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.312 BETAT ( 4 ) = -2.135

X/LNP	.250	.500	.750
PHI			
275.1220	-.1030	-.1030	-.1010

MACH ( 3 ) = 3.312 BETAT ( 5 ) = 2.260

X/LNP	.250	.500	.750
PHI			
.1220	-.1020	-.1010	
95.1550	-.1080	-.1020	-.1020
135.1220	-.1160	-.1090	-.1020
185.1220	-.1310	-.1040	-.1090
225.1220	-.1480	-.1090	-.1010
275.1220	-.1690	-.1010	-.1020

MACH ( 3 ) = 3.312 BETAT ( 6 ) = 4.480

X/LNP	.250	.500	.750
PHI			
.1220	-.1030	-.1040	
95.1220	-.1140	-.1160	-.1090
135.1220	-.1270	-.1040	-.1070
185.1220	-.1260	-.1020	-.1040
225.1220	-.1480	-.1090	-.1160
275.1220	-.1740	-.1050	-.1040

MACH ( 3 ) = 3.312 BETAT ( 7 ) = 6.680

X/LNP	.250	.500	.750
PHI			
.1220	-.1090	-.1120	
95.1220	-.1130	-.1130	-.1030
135.1220	-.1170	-.1120	-.1130
185.1220	-.1430	-.1090	-.1120
225.1220	-.1560	-.1060	-.1090
275.1220	-.1820	-.1120	-.1030

MACH ( 3 ) = 3.312 BETAT ( 8 ) = 8.900

X/LNP	.250	.500	.750
PHI			
.1220	-.1090	-.1070	
95.1220	-.1150	-.1160	-.1060
135.1220	-.1190	-.1070	-.1080
185.1220	-.1420	-.1060	-.1090
225.1220	-.1580	-.1090	-.1090
275.1220	-.1860	-.1070	-.1090

AMES 87-707 I49 O2A + S3 + T9 UPPER MPS NOZZLE

(RBND11) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4211 50. FT. XMRP = 28.5350 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0030 SCALE

## PARAMETRIC DATA

ALPHAT = -8.1440 ORBINC = .5000  
 RUDDER = -15.1440 ELEVON = .5000  
 RUDFLR = .5000

## SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.393  

X/LNP	.250	.500	.750
PHI			
.000	-.1260	-.1300	
90.000	-.1370	-.1320	-.1280
135.000	-.1450	-.1400	-.1350
180.000	.1280	.1160	-.1320
225.000	-.1380	-.1460	-.1320
270.000	-.1320	-.1290	-.1280

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.270

X/LNP	.250	.500	.750
PHI			
.000	-.1270	-.1310	
90.000	-.1360	-.1330	-.1270
135.000	-.1500	-.1470	-.1380
180.000	.1190	.1050	-.1310
225.000	-.1340	-.1370	-.1420
270.000	-.1320	-.1320	-.1340

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.160

X/LNP	.250	.500	.750
PHI			
.000	-.1250	-.1270	
90.000	-.1310	-.1290	-.1240
135.000	-.1540	-.1270	-.1350
180.000	.2090	.1670	-.1250
225.000	-.1320	-.1180	-.1350
270.000	-.1320	-.1340	-.1290

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .060

X/LNP	.250	.500	.750
PHI			
.000	-.1240	-.1250	
90.000	-.1270	-.1250	-.1250
135.000	-.1390	-.1310	-.1330
180.000	.1810	.1520	-.1230
225.000	-.1410	-.1260	-.1360
270.000	-.1350	-.1270	-.1270

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.330

X/LNP	.250	.500	.750
PHI			
.000	-.1230	-.1260	
90.000	-.1320	-.1290	-.1250
135.000	-.1450	-.1140	-.1350
180.000	.1820	.1710	-.1240
225.000	-.1560	-.1140	-.11

DATE 10 SEP 73

TABLATED PRESSURE DATA - IA9C  
 AMES 87-717 IA9 OCA + S3 + T9 UPPER MPS NOZZLE

(RBND11)

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.330  
 X/LNP .250 .500 .750  
 PHI 270.1600 -.1300 -.1270 -.1230

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.460  
 X/LNP .250 .500 .750  
 PHI .000 -.1250 -.1320  
 90.000 -.1330 -.1280 -.1280  
 135.000 -.1450 -.1330 -.1370  
 180.000 .1620 .0730 -.1330  
 225.000 -.0490 -.0740 -.1390  
 270.000 -.1350 -.1320 -.1290

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.600  
 X/LNP .250 .500 .750  
 PHI .000 -.1270 -.1290  
 90.000 -.1340 -.1320 -.1300  
 135.000 -.1550 -.1470 -.1460  
 180.000 .1890 .1740 -.1490  
 225.000 -.0330 -.0350 -.1390  
 270.000 -.1340 -.1330 -.1360

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.560  
 X/LNP .250 .500 .750  
 PHI .000 -.1070 -.1090  
 90.000 -.1160 -.1140 -.1070  
 135.000 -.0990 -.0900 -.1080  
 180.000 .0990 .0930 -.1140  
 225.000 -.1170 -.1180 -.1160  
 270.000 -.1110 -.1110 -.1090

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.410  
 X/LNP .250 .500 .750  
 PHI .000 -.1010 -.1090  
 90.000 -.1070 -.1060 -.1090  
 135.000 .0920 -.0840 -.1070  
 180.000 .1220 .0690 -.1010  
 225.000 -.0990 -.1070 -.1150  
 270.000 -.1090 -.1070 -.1090

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.260  
 X/LNP .250 .500 .750  
 PHI .000 -.1060 -.1080  
 90.000 -.1130 -.1120 -.1100  
 135.000 .0950 -.0990 -.1130  
 180.000 .1460 .0830 -.1090  
 225.000 -.0920 -.0970 -.1260

AMES 07-707 IAS OSA + S3 + T9 UPPER IFS NOZZLE

(RBN011)

## SECTION ( 1 ) IFS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.280

X/LNP	.250	.500	.750
PHI			
270.000	-.1120	-.1110	-.1110

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .090

X/LNP	.250	.500	.750
PHI			
.000	-.1080	-.1090	
90.000	-.1110	-.1120	-.1110
135.000	-.0650	-.0910	-.1130
180.000	.1710	.1730	-.0980
225.000	-.0850	-.0980	-.1150
270.000	-.1120	-.1110	-.1120

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.400

X/LNP	.250	.500	.750
PHI			
.000	-.1060	-.1080	
90.000	-.1140	-.1110	-.1110
135.000	-.0920	-.1040	-.1180
180.000	.1390	.1660	-.1020
225.000	-.0310	-.1420	-.1100
270.000	-.1120	-.1100	-.1070

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.500

X/LNP	.250	.500	.750
PHI			
.000	-.1060	-.1060	
90.000	-.1160	-.1140	-.1100
135.000	-.1100	-.1020	-.1170
180.000	.1190	.1740	-.1190
225.000	-.0330	-.1290	-.1070
270.000	-.1100	-.1110	-.1080

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.750

X/LNP	.250	.500	.750
PHI			
.000	-.1080	-.1100	
90.000	-.1140	-.1130	-.1120
135.000	-.1190	-.1200	-.1190
180.000	.0820	.1930	-.1220
225.000	-.0310	-.1260	-.1120
270.000	-.1160	-.1160	-.1120

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.710

X/LNP	.250	.500	.750
PHI			
.000	-.1010	-.1090	
90.000	-.0940	-.0930	-.0920
135.000	.0140	.0160	-.0930
180.000	.0660	.1220	-.1090
225.000	-.1010	-.1080	-.0930

DATE 18 SEP 75 TABULATED PRESSURE DATA - IASC (R0ND11)

AVES 87-717 IAG CRA + S3 + T9 UPPER MPS NOZZLE

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.710  
 X/LNP .250 .500 .750  
 PHI 270.000 -.0600 -.0610

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.920  
 X/LNP .250 .500 .750  
 PHI .000 -.0780 -.1070  
 90.000 -.0910 -.1090  
 135.000 .0100 -.1000  
 180.000 .0800 .1190  
 225.000 -.0740 -.1020  
 270.000 -.1070 -.1090

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330  
 X/LNP .250 .500 .750  
 PHI .000 -.0750 -.1040  
 90.000 -.1080 -.1090  
 135.000 .0320 -.1020  
 180.000 .1150 .1500  
 225.000 -.1030 -.1070  
 270.000 -.1030 -.1030

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .090  
 X/LNP .250 .500 .750  
 PHI .000 -.0740 -.1020  
 90.000 -.0900 -.1050  
 135.000 .0400 .1090  
 180.000 .1320 .1530  
 225.000 -.1010 -.1060  
 270.000 -.1000 -.1040

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.470  
 X/LNP .250 .500 .750  
 PHI .000 -.0730 -.1020  
 90.000 -.0600 -.1030  
 135.000 -.0670 -.1010  
 180.000 .1000 .1590  
 225.000 -.1040 -.1040  
 270.000 -.1030 -.1020

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.090  
 X/LNP .250 .500 .750  
 PHI .000 -.0720 -.1020  
 90.000 -.0620 -.1030  
 135.000 -.0710 -.1020  
 180.000 .1030 .1570  
 225.000 -.1030 -.1030

DATE 18 SEP 73

TABULATED PRESSURE DATA - IASC  
AMES 87-707 IAS OSA + 83 + 79 UPPER NPS NOZZLE

(088011)

SECTION ( 3 ) NPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETA ( 6 ) = 0.000	X/LNP	.250	.500	.750
		PHI			
		270.000	-.0640	-.0870	-.0880
MACH ( 3 ) = 3.502	BETA ( 7 ) = 0.500	X/LNP	.250	.500	.750
		PHI			
		.000	-.0750	-.0880	
		90.000	-.0810	-.0810	-.0880
		135.000	-.0780	-.0830	-.0870
		180.000	-.0920	-.0840	-.0840
		225.000	-.0810	-.0810	-.0810
		270.000	-.0850	-.0790	-.0830

AVES 87-707 1A9 O2A + S3 + T9 UPPER MPJ NOZZLE

(R080212) ( 15 MAY 73 )

REFERENCE DATA

SREF = 2.4215 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8495 INCHES YMRP = .0000 INCHES  
 BREF = 39.8495 INCHES ZMRP = .0000 INCHES  
 SCALE = .00125 SCALE

PARAMETRIC DATA

ALPHAT = -6.0000 OMBINC = .9000  
 RUDDER = -19.0000 ELEVON = .5000  
 RUFTLR = .0000

SECTION ( 1 ) MPJ NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -6.420 X/LNP .250 .500 .750

PHI	.000	-.1350	-.1390
90.000	-.1410	-.1380	-.1390
135.000	-.0600	-.0790	-.1430
180.000	.1480	-.1230	-.1440
225.000	-.1490	-.1490	-.1460
270.000	-.1390	-.1380	-.1390

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.300

PHI	.000	-.1360	-.1390
90.000	-.1420	-.1360	-.1340
135.000	-.0790	-.1230	-.1420
180.000	.0670	.0110	-.1360
225.000	-.1350	-.1330	-.1410
270.000	-.1410	-.1370	-.1360

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180

PHI	.000	-.1310	-.1320
90.000	-.1350	-.1350	-.1280
135.000	-.0830	-.1340	-.1370
180.000	.1420	.0410	-.1330
225.000	-.1330	-.1240	-.1350
270.000	-.1350	-.1330	-.1330

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .060

PHI	.000	-.1280	-.1340
90.000	-.1330	-.1300	-.1290
135.000	-.1430	-.1370	-.1380
180.000	.0980	.0880	-.1280
225.000	-.1410	-.1330	-.1370
270.000	-.1320	-.1310	-.1320

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310

PHI	.000	-.1310	-.1360
90.000	-.1410	-.1370	-.1350
135.000	-.1520	-.1220	-.1390
180.000	.1030	-.0150	-.1350
225.000	-.1020	-.1340	-.1450

(RM-012)

AMES 87-707 IAG OZA + S3 + T9 UPPER MPS NOZZLE

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310 X/LNP .250 .500 .750  
 PHI  
 270.140 -.1460 -.1390 -.1350

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.430 X/LNP .250 .500 .750  
 PHI  
 .500 -.1350 -.1375  
 90.000 -.1415 -.1380 -.1390  
 135.000 -.1470 -.1360 -.1420  
 180.000 .0830 .0000 -.1440  
 225.000 -.0910 -.1190 -.1460  
 270.000 -.1420 -.1410 -.1370

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.580 X/LNP .250 .500 .750  
 PHI  
 .500 -.1320 -.1330  
 90.000 -.1350 -.1340 -.1390  
 135.000 -.1520 -.1480 -.1370  
 180.000 .0310 .0030 -.1470  
 225.000 -.0740 -.1060 -.1430  
 270.000 -.1390 -.1340 -.1390

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.580 X/LNP .250 .500 .750  
 PHI  
 .000 -.1140 -.1170  
 90.000 -.1210 -.1190 -.1170  
 135.000 -.1450 -.1020 -.1180  
 180.000 .0610 .0680 -.1210  
 225.000 -.1230 -.1210 -.1180  
 270.000 -.1170 -.1170 -.1170

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.430 X/LNP .250 .500 .750  
 PHI  
 .500 -.1180 -.1170  
 90.000 -.1190 -.1210 -.1170  
 135.000 -.1430 -.1080 -.1210  
 180.000 .0660 .0170 -.1170  
 225.000 -.1130 -.1190 -.1220  
 270.000 -.1210 -.1190 -.1180

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.270 X/LNP .250 .500 .750  
 PHI  
 .500 -.1150 -.1180  
 90.000 -.1190 -.1190 -.1180  
 135.000 -.1380 -.1040 -.1210  
 180.000 .0280 .0330 -.1170  
 225.000 -.1010 -.0920 -.1230



(R6M012)

AMES 07-707 IAS OEA + S3 + T9 UPPER NPS NOZZLE

SECTION ( 1 ) NPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.270

X/LNP	.250	.500	.750
PHI			
270.000	-.1210	-.1200	-.1190

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .090

X/LNP	.250	.500	.750
PHI			
.000	-.1120	.0000	
90.000	-.1150	-.1160	-.1140
135.000	-.0490	-.1040	-.1170
180.000	.0840	.0960	-.1040
225.000	-.0550	-.1090	-.1160
270.000	-.1150	-.1150	-.1140

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.360

X/LNP	.250	.500	.750
PHI			
.000	-.1120	-.1140	
90.000	-.1200	-.1210	-.1170
135.000	-.0560	-.0750	-.1190
180.000	.1220	.0820	-.1140
225.000	-.0590	-.0660	-.1160
270.000	-.1140	-.1160	-.1120

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.550

X/LNP	.250	.500	.750
PHI			
.000	-.1110	-.1130	
90.000	-.1160	-.1160	-.1140
135.000	-.1160	-.1120	-.1190
180.000	.0840	.0840	-.1190
225.000	-.0600	-.0650	-.1150
270.000	-.1130	-.1130	-.1110

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.710

X/LNP	.250	.500	.750
PHI			
.000	-.1110	-.1130	
90.000	-.1140	-.1120	-.1120
135.000	-.1260	-.1250	-.1160
180.000	.0450	.1650	-.1230
225.000	-.0560	-.0400	-.1190
270.000	-.1190	-.1140	-.1140

MACH ( 3 ) = 3.508 BETAT ( 1 ) = -6.740

X/LNP	.250	.500	.750
PHI			
.000	-.0700	-.0800	
90.000	-.0800	-.0820	-.0800
135.000	-.0630	.0110	-.0760
180.000	.0410	.0870	-.0760
225.000	-.0600	-.0760	-.0790

(RBM012)

AMES 07-707 1A9 02A + S3 + T9 UPPER MPS NOZZLE

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.740

X/LNP	.250	.500	.750
PHI			
270.140	-.0780	-.0770	-.0770

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -0.540

X/LNP	.250	.500	.750
PHI			
.140	-.0710	-.0770	
90.140	-.0810	-.0820	-.0770
135.140	-.0100	-.0070	-.0780
180.140	-.0620	-.0890	-.0770
225.140	-.0720	-.0740	-.0830
270.140	-.0790	-.0790	-.0770

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.350

X/LNP	.250	.500	.750
PHI			
.140	-.0730	-.0810	
90.140	-.0830	-.0830	-.0820
135.140	-.0200	-.0200	-.0820
180.140	-.0870	-.0820	-.0770
225.140	-.0820	-.0870	-.0830
270.140	-.0810	-.0810	-.0810

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .050

X/LNP	.250	.500	.750
PHI			
.140	-.0690	-.0730	
90.140	-.0790	-.0750	-.0730
135.140	-.0440	-.0540	-.0760
180.140	-.0850	-.0810	-.0680
225.140	-.0490	-.0540	-.0770
270.140	-.0750	-.0740	-.0730

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.480

X/LNP	.250	.500	.750
PHI			
.140	-.0710	-.0810	
90.140	-.0810	-.0820	-.0820
135.140	-.0470	-.0490	-.0820
180.140	-.0810	-.0350	-.0780
225.140	-.0490	-.0430	-.0820
270.140	-.0830	-.0820	-.0820

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.660

X/LNP	.250	.500	.750
PHI			
.000	-.0710	-.0810	
90.140	-.0810	-.0820	-.0810
135.140	-.0760	-.0790	-.0870
180.140	-.0540	-.0250	-.0820
225.140	-.0290	-.0250	-.0820

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

AXES 07-707 IAS OZA + S3 + T9 UPPER MPS NOZZLE (R0ND012)

SECTION ( 3 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 0 ) = 0.000	X/LMP	.250	.500	.750
		PHI			
		270.000	-.0840	-.0810	-.0690
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 0.000	X/LMP	.250	.500	.750
		PHI			
		.030	-.0790	-.0620	
		90.000	-.0820	-.0820	-.0620
		135.000	-.0840	-.0890	-.0660
		180.000	.0920	.0470	-.0660
		225.000	-.0210	.0160	-.0640
		270.000	-.0890	-.0660	-.0690

(RND013) ( 31 MAY 73 )

AMES 87-707 IAG O2A + S3 + T9 UPPER MPS NOZZLE

REFERENCE DATA

XREF = 2.4210 SR.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

PARAMETRIC DATA

ALPHAT = .000 ORBINC = .500  
 RUDSER = -15.000 ELEVON = .000  
 RUDFLR = .000

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -0.420	X/LNP	.250	.500	.750
PHI					
		.000	-.1470	-.1490	
		90.000	-.1470	-.1510	-.1510
		135.000	-.1010	-.1380	-.1540
		180.000	-.0170	-.0160	-.1590
		225.000	-.1570	-.1520	-.1500
		270.000	-.1500	-.1490	-.1480
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	X/LNP	.250	.500	.750
PHI					
		.000	-.1460	-.1500	
		90.000	-.1520	-.1520	-.1490
		135.000	-.1070	-.1380	-.1540
		180.000	.0220	-.0480	-.1540
		225.000	-.1520	-.1570	-.1480
		270.000	-.1530	-.1490	-.1480
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	X/LNP	.250	.500	.750
PHI					
		.000	-.1370	-.1410	
		90.000	-.1420	-.1400	-.1390
		135.000	-.1060	-.1270	-.1430
		180.000	-.0470	-.0210	-.1410
		225.000	-.1470	-.1440	-.1410
		270.000	-.1430	-.1420	-.1400
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .060	X/LNP	.250	.500	.750
PHI					
		.000	-.1390	-.1410	
		90.000	-.1430	-.1420	-.1410
		135.000	-.1510	-.1480	-.1470
		180.000	.0490	.0240	-.1430
		225.000	-.1500	-.1470	-.1480
		270.000	-.1420	-.1410	-.1420
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.300	X/LNP	.250	.500	.750
PHI					
		.000	-.1410	-.1430	
		90.000	-.1470	-.1460	-.1440
		135.000	-.1550	-.1430	-.1440
		180.000	.0410	-.0180	-.1470
		225.000	-.1230	-.1400	-.1510

DATE 18 SEP 73 TABULATED PRESSURE DATA - IA9C  
 AWES 87-707 1A9 OZA + S3 + T9 UPPER MPS NOZZLE (RBN013)

SECTION ( 1 ) MPS NOZZLE		DEPENDENT VARIABLE CP	
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.300	X/LNP	.250 .500 .750
		PHI	270.000 -.1430 -.1400 -.1410
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.420	X/LNP	.250 .500 .750
		PHI	.000 -.1410 -.1450
			90.000 -.1470 -.1490 -.1440
			135.000 -.1530 -.1490 -.1460
			180.000 .0420 -.0430 -.1510
			225.000 -.1180 -.1440 -.1530
			270.000 -.1420 -.1450 -.1430
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.540	X/LNP	.250 .500 .750
		PHI	.000 -.1430 -.1440
			90.000 -.1480 -.1480 -.1470
			135.000 -.1580 -.1540 -.1480
			180.000 .0430 .0670 -.1570
			225.000 -.1100 -.1360 -.1530
			270.000 -.1440 -.1490 -.1460
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -6.580	X/LNP	.250 .500 .750
		PHI	.000 -.1100 -.1120
			90.000 -.1130 -.1130 -.1120
			135.000 -.0610 -.0970 -.1120
			180.000 .0190 -.0130 -.1130
			225.000 -.1170 -.1130 -.1130
			270.000 -.1140 -.1120 -.1110
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.420	X/LNP	.250 .500 .750
		PHI	.000 -.1060 -.1120
			90.000 -.1100 -.1120 -.1120
			135.000 -.0650 -.0670 -.1120
			180.000 .0100 -.0400 -.1090
			225.000 -.1070 -.1120 -.1120
			270.000 -.1120 -.1100 -.1080
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -6.260	X/LNP	.250 .500 .750
		PHI	.000 -.1070 -.1110
			90.000 -.1110 -.1110 -.1100
			135.000 -.0620 -.0660 -.1140
			180.000 .0510 .0620 -.1070
			225.000 -.1140 -.0870 -.1130

AMES 07-707 IAS OBA + S3 + T9 UPPER MPS NOZZLE

(RENO113)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE (

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.260

X/LNP	.250	.500	.750
PHI			
270.000	-.1140	-.1120	-.1120

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .060

X/LNP	.250	.500	.750
PHI			
.000	-.1020	-.1060	
90.000	-.1110	-.1160	-.1070
135.000	-.1060	-.1100	-.1110
180.000	-.0480	-.0470	-.1090
225.000	-.0720	-.1090	-.1130
270.000	-.1110	-.1090	-.1120

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.380

X/LNP	.250	.500	.750
PHI			
.000	-.1070	-.1120	
90.000	-.1140	-.1140	-.1120
135.000	-.1090	-.0770	-.1140
180.000	-.0790	-.0410	-.1120
225.000	-.0720	-.0790	-.1130
270.000	-.1110	-.1110	-.1100

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.540

X/LNP	.250	.500	.750
PHI			
.000	-.1090	-.1090	
90.000	-.1110	-.1090	-.1090
135.000	-.1080	-.1140	-.1110
180.000	-.0460	-.0460	-.1140
225.000	-.0760	-.0810	-.1130
270.000	-.1110	-.1090	-.1110

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.690

X/LNP	.250	.500	.750
PHI			
.000	-.1030	-.1060	
90.000	-.1080	-.1110	-.1090
135.000	-.1190	-.1150	-.1110
180.000	-.0460	-.0490	-.1170
225.000	-.0690	-.0650	-.1150
270.000	-.1070	-.1080	-.1110

MACH ( 3 ) = 3.312 BETAT ( 1 ) = -6.730

X/LNP	.250	.500	.750
PHI			
.000	-.0730	-.0820	
90.000	-.0820	-.0810	-.0830
135.000	-.0680	-.0660	-.0830
180.000	-.0110	-.0180	-.0810
225.000	-.0440	-.0410	-.0820

## AMES 87-707 IAS OSA + S3 + T9 UPPER MPS NOZZLE

(RBND13)

## SECTION ( 3 ) 3.502 NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -6.750

X/LNP	.250	.500	.750
PHI			
270.000	-.0820	-.14810	-.14820

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.550

X/LNP	.250	.500	.750
PHI			
.000	-.0680	-.0780	
90.000	-.0790	-.0780	-.0770
135.000	-.0320	-.0310	-.0600
180.000	.0300	.0130	-.0780
225.000	-.0760	-.0790	-.0600
270.000	-.0770	-.0780	-.0790

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.350

X/LNP	.250	.500	.750
PHI			
.000	-.0710	-.0810	
90.000	-.0780	-.0780	-.0790
135.000	-.0320	-.0200	-.0790
180.000	.0800	.0360	-.0770
225.000	-.0790	-.0630	-.0630
270.000	-.0790	-.0790	-.0790

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .050

X/LNP	.250	.500	.750
PHI			
.000	-.0680	-.0740	
90.000	-.0760	-.0760	-.0740
135.000	-.0220	-.0690	-.0760
180.000	.0480	.0500	-.0720
225.000	-.0270	-.0670	-.0790
270.000	-.0740	-.0760	-.0750

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.450

X/LNP	.250	.500	.750
PHI			
.000	-.0730	-.0810	
90.000	-.0820	-.0820	-.0830
135.000	-.0640	-.0490	-.0840
180.000	.0840	.0670	-.0780
225.000	-.0380	-.0100	-.0820
270.000	-.0800	-.0780	-.0800

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.650

X/LNP	.250	.500	.750
PHI			
.000	-.0740	-.0840	
90.000	-.0820	-.0830	-.0830
135.000	-.0190	-.0830	-.0850
180.000	.0290	.0580	-.0820
225.000	-.0460	-.0280	-.0850

## AMES 87-707 1A9 ORA + S3 + T9 UPPER MPS NOZZLE

(RBN013)

## SECTION ( 3 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 6 ) = 0.650	X/LNP	.250	.500	.750
		PHI			
		270.144	-.10820	-.10830	-.10830
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 0.840	X/LNP	.250	.500	.750
		PHI			
		.1400	-.10740	-.10820	
		90.144	-.10820	-.10820	-.10830
		135.144	-.10870	-.10840	-.10840
		180.144	.10750	.10660	-.10860
		225.144	-.10820	-.10810	-.10850
		270.144	-.10810	-.10810	-.10810



DATE 18 SEP 73

TABULATED PRESSURE DATA - IA9C

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AHES 87-707 IA9 OBA + S3 + T9 UPPER MPS NOZZLE (RBND14) ( 10 MAY 75 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5350 INCHES  
 LREF = 39.8490 INCHES YMRP = .0220 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0350 SCALE

## PARAMETRIC DATA

ALPHAT = 4.020 ORBINC = .500  
 RUDDER = -15.000 ELEVON = .000  
 RUDDFLR = .000

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.410

X/LNP	.250	.500	.750
PHI			
.000	-.1530	-.1570	-.1580
90.000	-.1570	-.1590	-.1560
135.000	-.1360	-.1450	-.1610
180.000	-.0540	-.0700	-.1620
225.000	-.1710	-.1590	-.1590
270.000	-.1620	-.1620	-.1590

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.290

X/LNP	.250	.500	.750
PHI			
.000	-.1520	-.1530	
90.000	-.1550	-.1570	-.1560
135.000	-.1340	-.1470	-.1620
180.000	-.0270	-.0390	-.1530
225.000	-.1640	-.1580	-.1550
270.000	-.1580	-.1550	-.1530

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180

X/LNP	.250	.500	.750
PHI			
.000	-.1900	-.1920	
90.000	-.1540	-.1540	-.1520
135.000	-.1190	-.1520	-.1560
180.000	-.0260	-.0530	-.1530
225.000	-.1580	-.1570	-.1520
270.000	-.1550	-.1490	-.1520

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .060

X/LNP	.250	.500	.750
PHI			
.000	-.1430	-.1460	
90.000	-.1470	-.1440	-.1430
135.000	-.1630	-.1460	-.1480
180.000	-.0220	-.0190	-.1460
225.000	-.1590	-.1480	-.1490
270.000	-.1460	-.1420	-.1420

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310

X/LNP	.250	.500	.750
PHI			
.000	-.1460	-.1480	
90.000	-.1510	-.1520	-.1500
135.000	-.1590	-.1530	-.1510
180.000	-.0070	-.0800	-.1480
225.000	-.1240	-.1510	-.1590

## AMES 87-707 IA9 OZA + S3 + T9 UPPER MPS NOZZLE

(RBND14)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310

X/LNP PHI	.250	.500	.750
270.000	-.1520	-.1510	-.1490

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.430

X/LNP PHI	.250	.500	.750
.000	-.1460	-.1490	
90.000	-.1520	-.1520	-.1510
135.000	-.1630	-.1570	-.1530
180.000	-.0130	-.0470	-.1540
225.000	-.1400	-.1500	-.1570
270.000	-.1510	-.1510	-.1520

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.560

X/LNP PHI	.250	.500	.750
.000	-.1540	-.1590	
90.000	-.1590	-.1620	-.1580
135.000	-.1770	-.1620	-.1600
180.000	-.0170	-.0240	-.1630
225.000	-.1380	-.1550	-.1650
270.000	-.1580	-.1610	-.1580

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.560

X/LNP PHI	.250	.500	.750
.000	-.1120	-.1160	
90.000	-.1140	-.1160	-.1160
135.000	-.0920	-.0960	-.1180
180.000	-.0340	-.0420	-.1170
225.000	-.1230	-.1160	-.1160
270.000	-.1170	-.1170	-.1170

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -0.410

X/LNP PHI	.250	.500	.750
.000	-.1110	-.1180	
90.000	-.1150	-.1160	-.1190
135.000	-.0880	-.0940	-.1180
180.000	-.0210	-.0300	-.1140
225.000	-.1270	-.1190	-.1190
270.000	-.1200	-.1180	-.1180

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.250

X/LNP PHI	.250	.500	.750
.000	-.1120	-.1180	
90.000	-.1160	-.1170	-.1160
135.000	-.0840	-.1130	-.1170
180.000	-.0210	-.0160	-.1190
225.000	-.1280	-.1090	-.1200

TABLATED PRESSURE DATA - IA9C

(RBND14)

AVES 07-707 1A9 OCA + S3 + T9 UPPER MPS NOZZLE

SECTION ( 1 ) MPS NOZZLE	DEPENDENT VARIABLE CP			
MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.250	X/LNP	.250	.500	.750
	PHI			
	270.000	-.1200	-.1180	-.1170
MACH ( 2 ) = 2.999 BETAT ( 4 ) = .060	X/LNP	.250	.500	.750
	PHI			
	.000	-.1080	-.1120	
	90.000	-.1130	-.1120	-.1120
	135.000	-.1080	-.1150	-.1130
	180.000	.0210	.0000	-.1130
	225.000	-.1150	-.1110	-.1150
	270.000	-.1150	-.1120	-.1110
MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.360	X/LNP	.250	.500	.750
	PHI			
	.000	-.1110	-.1170	
	90.000	-.1170	-.1160	-.1170
	135.000	-.1210	-.0990	-.1190
	180.000	.0110	-.0440	-.1100
	225.000	-.0940	-.1060	-.1190
	270.000	-.1160	-.1180	-.1170
MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.350	X/LNP	.250	.500	.750
	PHI			
	.000	-.1120	-.1180	
	90.000	-.1160	-.1160	-.1170
	135.000	-.1190	-.1140	-.1190
	180.000	-.0070	-.0440	-.1120
	225.000	-.0990	-.1070	-.1210
	270.000	-.1180	-.1190	-.1180
MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.710	X/LNP	.250	.500	.750
	PHI			
	.000	-.1140	-.1190	
	90.000	-.1190	-.1200	-.1190
	135.000	-.1280	-.1220	-.1200
	180.000	-.0020	-.0330	-.1240
	225.000	-.1030	-.1090	-.1240
	270.000	-.1190	-.1190	-.1220
MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.750	X/LNP	.250	.500	.750
	PHI			
	.000	-.0900	-.1000	
	90.000	-.0990	-.1010	-.1000
	135.000	-.0700	-.0670	-.1010
	180.000	-.0240	-.0330	-.1000
	225.000	-.1000	-.1000	-.1010

AVES 67-707 1A9 OCA + S3 + T9 UPPER MPS NOZZLE

(REND14)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -6.750

X/LNP	.250	.500	.750
PHI			
270.000	-.0990	-.1000	-.1010

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.530

X/LNP	.250	.500	.750
PHI			
.000	-.0940	-.1010	
90.000	-.0970	-.0990	-.1010
135.000	-.0730	-.0700	-.0990
180.000	-.0210	-.0390	-.0990
225.000	-.0970	-.0960	-.1010
270.000	-.1020	-.0990	-.0980

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.340

X/LNP	.250	.500	.750
PHI			
.000	-.0910	-.1000	
90.000	-.0980	-.0990	-.1000
135.000	-.0690	-.0850	-.0990
180.000	.0200	-.0160	-.1000
225.000	-.1010	-.0970	-.0980
270.000	-.1000	-.1000	-.1010

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .050

X/LNP	.250	.500	.750
PHI			
.000	-.0870	-.0960	
90.000	-.0950	-.0980	-.0970
135.000	-.0660	-.0950	-.0990
180.000	.0260	.0180	-.0950
225.000	-.0810	-.0930	-.0980
270.000	-.0950	-.0970	-.0970

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.050

X/LNP	.250	.500	.750
PHI			
.000	-.0840	-.0940	
90.000	-.0900	-.0950	-.0950
135.000	-.0630	-.0890	-.0980
180.000	.0240	-.0120	-.0940
225.000	-.0850	-.0740	-.0940
270.000	-.0940	-.0930	-.0930

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.680

X/LNP	.250	.500	.750
PHI			
.000	-.0760	-.0830	
90.000	-.0860	-.0830	-.0830
135.000	-.0720	-.0850	-.0850
180.000	.0040	-.0190	-.0830
225.000	-.0850	-.0620	-.0860



DATE 18 SEP 73

TABULATED PRESSURE DATA - IASC

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AMES 87-707 IAS OEA + S3 + T9 UPPER MPS NOZZLE

(08ND14)

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.660	X/LNP	.250	.500	.750
		PHI			
		270.000	-.0830	-.0840	-.0830
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.660	X/LNP	.250	.500	.750
		PHI			
		.000	-.0770	-.0860	
		90.000	-.0890	-.0860	-.0870
		135.000	-.0880	-.0860	-.0880
		180.000	-.0810	-.0840	-.0910
		225.000	-.0840	-.0870	-.0870
		270.000	-.0860	-.0870	-.0860

AVES 07-707 1A9 02A + S3 + T9 UPPER WPS NOZZLE

(REND15) ( 15 MAY 73 )

REFERENCE DATA

SRP = 2.4210 SQ.FT. XMRP = 20.3300 INCHES  
 LMRP = 39.8490 INCHES YMRP = .0000 INCHES  
 ZMRP = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

PARAMETRIC DATA

ALPHAT = 6.1400 CRBINC = .900  
 RUDDER = -15.1400 ELEVON = .000  
 RUDFLR = .000

SECTION ( 1 ) WPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -0.390

X/LNP	.250	.500	.750
PHI	.000	-.1500	-.1610
90.000	-.1600	-.1620	-.1600
135.000	-.1470	-.1540	-.1660
180.000	-.0730	-.1440	-.1630
225.000	-.1770	-.1670	-.1620
270.000	-.1640	-.1610	-.1620

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -0.280

X/LNP	.250	.500	.750
PHI	.000	-.1550	-.1580
90.000	-.1610	-.1610	-.1580
135.000	-.1450	-.1510	-.1640
180.000	-.1400	-.1580	-.1560
225.000	-.1680	-.1620	-.1590
270.000	-.1610	-.1610	-.1610

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -0.180

X/LNP	.250	.500	.750
PHI	.000	-.1500	-.1510
90.000	-.1560	-.1530	-.1510
135.000	-.1300	-.1510	-.1580
180.000	-.1070	-.1530	-.1530
225.000	-.1640	-.1580	-.1550
270.000	-.1580	-.1510	-.1540

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .000

X/LNP	.250	.500	.750
PHI	.000	-.1440	-.1440
90.000	-.1460	-.1460	-.1450
135.000	-.1610	-.1470	-.1510
180.000	-.110	-.1440	-.1510
225.000	-.1610	-.1490	-.1480
270.000	-.1480	-.1460	-.1430

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310

X/LNP	.250	.500	.750
PHI	.000	-.1470	-.1480
90.000	-.1520	-.1510	-.1510
135.000	-.1610	-.1520	-.1520
180.000	-.1450	-.1440	-.1480
225.000	-.1380	-.1520	-.1570

DATE 18 SEP 73 TABULATED PRESSURE DATA - IA9C

(R8ND15)

AVES 87-707 IA9 ORA + S3 + T9 UPPER MPS NOZZLE

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310 X/LNP .250 .500 .750  
PHI  
270.000 -.1320 -.1490 -.1480

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.445 X/LNP .250 .500 .750  
PHI  
.000 -.1500 -.1520  
90.000 -.1560 -.1540 -.1590  
135.000 -.1640 -.1610 -.1560  
180.000 -.1680 -.1630 -.1590  
225.000 -.1490 -.1590 -.1580  
270.000 -.1570 -.1550 -.1520

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.575 X/LNP .250 .500 .750  
PHI  
.000 -.1540 -.1580  
90.000 -.1610 -.1590 -.1610  
135.000 -.1760 -.1670 -.1650  
180.000 -.1680 -.1670 -.1660  
225.000 -.1480 -.1620 -.1660  
270.000 -.1620 -.1610 -.1590

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -6.590 X/LNP .250 .500 .750  
PHI  
.000 -.1130 -.1190  
90.000 -.1180 -.1190 -.1170  
135.000 -.1090 -.1120 -.1250  
180.000 -.1430 -.1480 -.1160  
225.000 -.1250 -.1270 -.1190  
270.000 -.1200 -.1160 -.1160

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.450 X/LNP .250 .500 .750  
PHI  
.000 -.1090 -.1170  
90.000 -.1140 -.1170 -.1170  
135.000 -.1150 -.1190 -.1190  
180.000 -.1160 -.1090 -.1140  
225.000 -.1240 -.1130 -.1170  
270.000 -.1190 -.1170 -.1170

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.240 X/LNP .250 .500 .750  
PHI  
.000 -.1130 -.1160  
90.000 -.1190 -.1190 -.1180  
135.000 -.1090 -.1060 -.1190  
180.000 -.1060 -.1090 -.1160  
225.000 -.1290 -.1110 -.1210

(R04D15)

AMES 67-707 1A9 OSA + S3 + T9 UPPER MPS NOZZLE

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.240 X/LNP .250 .500 .750  
PHI 270.000 -.1210 -.1190 -.1180

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .560 X/LNP .250 .500 .750  
PHI .000 -.1110 -.1160  
90.000 -.1170 -.1170 -.1160  
135.000 -.1220 -.1140 -.1160  
180.000 .0780 -.1280 -.1160  
225.000 -.1210 -.1130 -.1160  
270.000 -.1170 -.1160 -.1120

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.390 X/LNP .250 .500 .750  
PHI .000  
90.000 -.1130 -.1170  
135.000 -.1200 -.1180 -.1190  
180.000 -.1200 -.1070 -.1210  
185.000 -.1480 -.1480 -.1160  
225.000 -.1030 -.1030 -.1200  
270.000 -.1190 -.1190 -.1160

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.570 X/LNP .250 .500 .750  
PHI .000  
90.000 -.1190 -.1180 -.1170  
135.000 -.1240 -.1140 -.1200  
180.000 -.0920 -.0920 -.1190  
225.000 -.1130 -.1160 -.1200  
270.000 -.1190 -.1180 -.1160

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.730 X/LNP .250 .500 .750  
PHI .000  
90.000 -.1130 -.1180  
135.000 -.1200 -.1200 -.1200  
180.000 -.0770 -.0770 -.1200  
225.000 -.1100 -.1130 -.1210  
270.000 -.1180 -.1200 -.1160

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.710 X/LNP .250 .500 .750  
PHI .000  
90.000 -.0690 -.1010  
135.000 -.1010 -.1010 -.1010  
180.000 -.1010 -.1010 -.1020  
225.000 -.0920 -.1460 -.1020  
270.000 -.1020 -.1030 -.1020



AMES 07-707 IAS OEA + S3 + T9 UPPER MPS NOZZLE

(R08D15)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -6.710

X/LNP	.250	.500	.750
PHI			
270.000	-.1000	-.1000	-.1000

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.520

X/LNP	.250	.500	.750
PHI			
.000	-.0680	-.0680	
90.000	-.0970	-.0970	-.0970
135.000	-.0870	-.0870	-.0990
180.000	-.0220	-.0320	-.0970
225.000	-.0990	-.0970	-.1010
270.000	-.0990	-.0980	-.0980

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330

X/LNP	.250	.500	.750
PHI			
.000	-.0930	-.1020	
90.000	-.0970	-.1000	-.1040
135.000	-.0770	-.0900	-.0990
180.000	-.0170	-.0230	-.1010
225.000	-.1030	-.0990	-.1020
270.000	-.1040	-.1030	-.1000

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .030

X/LNP	.250	.500	.750
PHI			
.000	-.0910	-.0970	
90.000	-.0990	-.0960	-.0990
135.000	-.0940	-.0970	-.1010
180.000	.0080	-.0150	-.0990
225.000	-.0970	-.0960	-.1000
270.000	-.0970	-.0970	-.0980

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.480

X/LNP	.250	.500	.750
PHI			
.000	-.0920	-.1010	
90.000	-.0990	-.1000	-.0990
135.000	-.0840	-.0710	-.1010
180.000	-.0040	-.0310	-.1010
225.000	-.0780	-.0880	-.1010
270.000	-.0880	-.0990	-.1020

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.680

X/LNP	.250	.500	.750
PHI			
.000	-.0860	-.0990	
90.000	-.0980	-.1000	-.0990
135.000	-.0840	-.0810	-.1010
180.000	-.0270	-.0260	-.0970
225.000	-.0860	-.0910	-.0970

AVES 67-707 IAS OEA + S3 + 79 UPPER MPS NOZZLE (0808015)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.660	X/LNP	.250	.500	.750
		PHI			
		270.000	-.0960	-.1010	-.1060
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.660	X/LNP	.250	.500	.750
		PHI			
		90.000	-.1090	-.1040	
		135.000	-.1090	-.1090	-.1090
		180.000	-.1060	-.1060	-.1050
		225.000	-.0820	-.0890	-.1050
		270.000	-.0820	-.0910	-.1040
		270.000	-.1030	-.1030	-.1140

AWES 87-707 1A9 ORZ + S3 + T9 UPPER MPS NOZZLE

(RBND16) ( 15 MAY 75 )

REFERENCE DATA

SREP = 2.4210 50.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = 8.0000 ORBINC = .9000  
 RUDDER = -15.0000 ELEVON = .0000  
 RUDFLR = .0000

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -6.370

X/LNP	.250	.500	.750
PHI	.000	-.1580	-.1610
90.000	-.1610	-.1620	-.1600
135.000	-.1490	-.1500	-.1660
180.000	-.0710	-.0680	-.1600
225.000	-.1700	-.1700	-.1620
270.000	-.1600	-.1610	-.1600

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.270

X/LNP	.250	.500	.750
PHI	.000	-.1530	-.1550
90.000	-.1570	-.1560	-.1590
135.000	-.1400	-.1470	-.1590
180.000	-.1420	-.1640	-.1540
225.000	-.1620	-.1600	-.1560
270.000	-.1590	-.1560	-.1540

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.160

X/LNP	.250	.500	.750
PHI	.000	-.1500	-.1900
90.000	-.1520	-.1510	-.1900
135.000	-.1370	-.1490	-.1580
180.000	-.0130	-.0280	-.1520
225.000	-.1570	-.1530	-.1590
270.000	-.1510	-.1510	-.1500

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .000

X/LNP	.250	.500	.750
PHI	.000	-.1470	-.1480
90.000	-.1490	-.1490	-.1480
135.000	-.1570	-.1490	-.1500
180.000	.0000	-.0660	-.1500
225.000	-.1610	-.1470	-.1490
270.000	-.1480	-.1490	-.1430

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.350

X/LNP	.250	.500	.750
PHI	.000	-.1480	-.1490
90.000	-.1530	-.1510	-.1510
135.000	-.1610	-.1570	-.1540
180.000	-.0120	-.0420	-.1530
225.000	-.1500	-.1520	-.1540

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

(RBND16)

AMES 87-707 IAS O2A + S3 + T9 UPPER MPS NOZZLE

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CF

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.330  
 X/LNP .250 .500 .750  
 PHI 270.140 - .1530 - .1510 - .1470

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.460  
 X/LNP .250 .500 .750  
 PHI .000 - .1530 - .1580  
 90.000 - .1610 - .1600 - .1600  
 135.000 - .1670 - .1630 - .1620  
 180.000 - .1640 - .1670 - .1630  
 225.000 - .1570 - .1570 - .1620  
 270.000 - .1610 - .1590 - .1580

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.600  
 X/LNP .250 .500 .750  
 PHI .000 - .1610 - .1630  
 90.000 - .1690 - .1650 - .1640  
 135.000 - .1710 - .1670 - .1640  
 180.000 - .1660 - .1670 - .1680  
 225.000 - .1610 - .1580 - .1680  
 270.000 - .1620 - .1630 - .1610

MACH ( 2 ) = 2.998 BETAT ( 1 ) = -8.330  
 X/LNP .250 .500 .750  
 PHI .000 - .1170 - .1220  
 90.000 - .1210 - .1220 - .1220  
 135.000 - .1180 - .1190 - .1220  
 180.000 - .1160 - .1160 - .1230  
 225.000 - .1220 - .1230 - .1230  
 270.000 - .1220 - .1220 - .1210

MACH ( 2 ) = 2.998 BETAT ( 2 ) = -6.300  
 X/LNP .250 .500 .750  
 PHI .000 - .1120 - .1190  
 90.000 - .1180 - .1190 - .1190  
 135.000 - .1110 - .1110 - .1210  
 180.000 - .1030 - .1050 - .1210  
 225.000 - .1220 - .1180 - .1210  
 270.000 - .1210 - .1210 - .1180

MACH ( 2 ) = 2.998 BETAT ( 3 ) = -4.230  
 X/LNP .250 .500 .750  
 PHI .000 - .1120 - .1170  
 90.000 - .1160 - .1170 - .1190  
 135.000 - .1090 - .1140 - .1190  
 180.000 - .1080 - .1030 - .1190  
 225.000 - .1190 - .1190 - .1190

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

AMES 87-707 IAS ORA + S3 + T9 UPPER MPS NOZZLE (R5ND16)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.230  
 X/LNP .250 .500 .750  
 PHI  
 270.000 -.1190 -.1170 -.1150

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .060  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.1110 -.1140  
 90.000 -.1160 -.1150 -.1150  
 135.000 -.1230 -.1150 -.1170  
 180.000 -.0030 -.0440 -.1160  
 225.000 -.1240 -.1130 -.1140  
 270.000 -.1140 -.1140 -.1140

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.400  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.1110 -.1130  
 90.000 -.1160 -.1150 -.1140  
 135.000 -.1190 -.1030 -.1180  
 180.000 -.0120 -.0210 -.1140  
 225.000 -.1020 -.1110 -.1170  
 270.000 -.1140 -.1130 -.1130

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.580  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.1110 -.1150  
 90.000 -.1160 -.1170 -.1150  
 135.000 -.1110 -.1170 -.1170  
 180.000 -.0310 -.0520 -.1170  
 225.000 -.1150 -.1130 -.1170  
 270.000 -.1160 -.1160 -.1150

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.750  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.1150 -.1190  
 90.000 -.1220 -.1220 -.1230  
 135.000 -.1220 -.1240 -.1210  
 180.000 -.0400 -.0820 -.1210  
 225.000 -.1160 -.1140 -.1220  
 270.000 -.1210 -.1210 -.1190

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.690  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.0940 -.1030  
 90.000 -.1010 -.1020 -.1020  
 135.000 -.0890 -.0850 -.1030  
 180.000 -.0590 -.0620 -.1030  
 225.000 -.1070 -.1040 -.1020

AMES 87-707 IA9 ORA + S3 + T9 UPPER MPS NOZZLE

(RBND16)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.689	X/LNP	.250	.500	.750
		PHI			
		270.000	-.1040	-.1040	-.1040
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.950	X/LNP	.250	.500	.750
		PHI			
		.000	-.0920	-.1020	
		90.000	-.0990	-.1010	-.1020
		135.000	-.0910	-.0930	-.1040
		180.000	-.0370	-.0450	-.1030
		225.000	-.1010	-.1010	-.1040
		270.000	-.1010	-.1010	-.1010
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.320	X/LNP	.250	.500	.750
		PHI			
		.000	-.0890	-.0990	
		90.000	-.0970	-.0970	-.1010
		135.000	-.0780	-.0910	-.1000
		180.000	-.0260	-.0380	-.1000
		225.000	-.1000	-.0920	-.1000
		270.000	-.1000	-.1000	-.0980
MACH ( 3 ) = 3.502	BETAT ( 4 ) = 0.950	X/LNP	.250	.500	.750
		PHI			
		.000	-.0910	-.1000	
		90.000	-.1000	-.1010	-.1000
		135.000	-.1000	-.0970	-.1020
		180.000	-.0810	-.0950	-.1020
		225.000	-.1020	-.0980	-.1030
		270.000	-.0990	-.0980	-.1000
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.470	X/LNP	.250	.500	.750
		PHI			
		.000	-.0820	-.1000	
		90.000	-.1020	-.1030	-.1030
		135.000	-.0970	-.0850	-.1030
		180.000	-.0220	-.0420	-.1040
		225.000	-.0870	-.0960	-.1050
		270.000	-.1030	-.1030	-.1020
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.680	X/LNP	.250	.500	.750
		PHI			
		.000	-.0880	-.0990	
		90.000	-.0980	-.0990	-.1010
		135.000	-.0950	-.0990	-.0990
		180.000	-.0350	-.0550	-.0990
		225.000	-.0920	-.0930	-.0990

DATE 18 SEP 73

TABLATED PRESSURE DATA - IA9C  
 AMES 87-707 IA9 ORA + S3 + T9 UPPER MPS NOZZLE

(RBND16)

SECTION ( 1 ) MPS NOZZLE

SECTION ( 1 ) MPS NOZZLE		DEPENDENT VARIABLE CF	
MACH ( 3 ) = 3.542	BETAT ( 6 ) = 6.680	X/LNP	.250 .500 .750
		PHI	
		270.000	-0.990 -0.990 -0.980
MACH ( 3 ) = 3.542	BETAT ( 7 ) = 8.900	X/LNP	.250 .500 .750
		PHI	
		.000	-0.980 -0.980
		90.000	-0.980 -0.980 -0.980
		135.000	-0.980 -0.980 -0.980
		180.000	-0.980 -0.980 -0.980
		225.000	-0.980 -0.980 -0.980
		270.000	-0.980 -0.980 -0.980

AIRC 67-757 1A9 O2A + S3 + T9 UPPER MPS NOZZLE

(R0ND17) ( 15 MAY 75 )

## REFERENCE DATA

SREF = 2.4210 50.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHAT = -8.0000 ORBINC = .500  
 RUDDER = -10.0000 ELEWON = .500  
 RUDDFLR = .0000

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499 BETAT ( 1 ) = -0.390

X/LNP	.250	.500	.750
PHI			
.000	-.1320	-.1360	
90.000	-.1450	-.1390	-.1360
135.000	-.1620	-.1620	-.1340
180.000	.1260	.0070	-.1420
225.000	-.1490	-.1520	-.1420
270.000	-.1370	-.1540	-.1340

MACH ( 1 ) = 2.499 BETAT ( 2 ) = -6.280

X/LNP	.250	.500	.750
PHI			
.000	-.1280	-.1310	
90.000	-.1360	-.1340	-.1310
135.000	-.1030	-.1020	-.1310
180.000	.1100	.0060	-.1290
225.000	-.1310	-.1390	-.1410
270.000	-.1340	-.1410	-.1310

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180

X/LNP	.250	.500	.750
PHI			
.000	-.1260	-.1290	
90.000	-.1310	-.1300	-.1260
135.000	-.1030	-.1240	-.1260
180.000	.1090	.0050	-.1280
225.000	-.1290	-.1170	-.1340
270.000	-.1310	-.1210	-.1270

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .060

X/LNP	.250	.500	.750
PHI			
.000	-.1260	-.1260	
90.000	-.1300	-.1280	-.1260
135.000	-.1410	-.1290	-.1260
180.000	.1790	.1430	-.1290
225.000	-.1430	-.1260	-.1380
270.000	-.1310	-.1280	-.1290

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.330

X/LNP	.250	.500	.750
PHI			
.000	-.1250	-.1300	
90.000	-.1320	-.1290	-.1320
135.000	-.1420	-.1140	-.1280
180.000	.1740	.0710	-.1250
225.000	-.1660	-.1140	.90



DATE 18 SEP 73 TABULATED PRESSURE DATA - 1A9C

AMES 87-7J7 IAG OCA + S3 + T9 UPPER MPS NOZZLE (RBM017)

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.330 X/LNP .250 .500 .750  
 PHI 270.000 -.1330 -.1290 -.1250

MACH ( 1 ) = 2.499 BETAT ( 6 ) = 6.470 X/LNP .250 .500 .750  
 PHI .000 -.1290 -.1330  
 90.000 -.1370 -.1350 -.1320  
 135.000 -.1470 -.1320 -.1320  
 180.000 .1610 .0730 -.1370  
 225.000 -.0530 -.0760 -.1420  
 270.000 -.1360 -.1320 -.1300

MACH ( 1 ) = 2.499 BETAT ( 7 ) = 8.600 X/LNP .250 .500 .750  
 PHI .000 -.1270 -.1290  
 90.000 -.1330 -.1310 -.1270  
 135.000 -.1530 -.1460 -.1270  
 180.000 .1820 .1800 -.1470  
 225.000 -.0370 -.1460 -.1390  
 270.000 -.1330 -.1330 -.1320

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.540 X/LNP .250 .500 .750  
 PHI .000 -.0990 -.1030  
 90.000 -.1070 -.1070 -.1020  
 135.000 -.0330 .0000 -.1020  
 180.000 .1160 .0970 -.1080  
 225.000 -.1090 -.1100 -.1110  
 270.000 -.1040 -.1115 -.1020

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.240 X/LNP .250 .500 .750  
 PHI .000 -.1010 -.1020  
 90.000 -.1060 -.1030 -.1040  
 135.000 .0120 -.0520 -.1070  
 180.000 .1510 .0880 -.0980  
 225.000 -.1840 -.0890 -.1140  
 270.000 -.1060 -.0900 -.1050

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .060 X/LNP .250 .500 .750  
 PHI .000 -.0970 -.1000  
 90.000 -.1030 -.1020 -.1020  
 135.000 -.0960 -.0810 -.1050  
 180.000 .1760 .1770 -.1080  
 225.000 -.0740 -.1080 -.1070

AMES 87-707 IAS ORA + S3 + T9 UPPER WFS NOZZLE

(RBN017)

## SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .560  
 X/LNP .250 .500 .750  
 PHI 270.000 -.1030 -.0900 -.1030

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.415  
 X/LNP .250 .500 .750  
 PHI .000 -.1000 -.1000

90.000 -.1000 -.1000  
 135.000 -.1000 -.1000  
 180.000 .1430 .1670 -.1000  
 225.000 -.1000 -.1000  
 270.000 -.1000 -.1000

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 6.760  
 X/LNP .250 .500 .750  
 PHI .000 -.1010 -.1030  
 90.000 -.1000 -.1000  
 135.000 -.1120 -.1100 -.1000  
 180.000 .1070 .2010 -.1000  
 225.000 -.1000 -.1000  
 270.000 -.1000 -.1000

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.700  
 X/LNP .250 .500 .750  
 PHI .000 -.0780 -.1000  
 90.000 -.1010 -.1000  
 135.000 .0070 .0110 -.1000  
 180.000 .1000 .1280 -.1000  
 225.000 -.1000 -.1000  
 270.000 -.1000 -.1000

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -0.310  
 X/LNP .250 .500 .750  
 PHI .000 -.0780 -.1000  
 90.000 -.1010 -.1000  
 135.000 .0110 -.1000  
 180.000 .0910 .1210 -.1000  
 225.000 -.1000 -.1000  
 270.000 -.1000 -.1000

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.320  
 X/LNP .250 .500 .750  
 PHI .000 -.0770 -.1000  
 90.000 -.1000 -.1000  
 135.000 .0310 -.1000  
 180.000 .1170 .1400 -.1000  
 225.000 -.1000 -.1000

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

AMES 87-707 IAS ORA + S3 + T9 UPPER WFS NOZZLE

(R8ND17)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.542 BETAT ( 3 ) = -4.320  
 X/LNF .250 .500 .750  
 PHI 270.000 -.1830 -.1680 -.1840

MACH ( 3 ) = 3.542 BETAT ( 4 ) = .560  
 X/LNF .000 -.1740 -.1820  
 PHI 90.000 -.1890 -.1830 -.1840  
 135.000 .0660 -.1470 -.1840  
 180.000 .1320 .1490 -.1700  
 225.000 -.1120 -.1540 -.1860  
 270.000 -.1860 -.1840 -.1810

MACH ( 3 ) = 3.542 BETAT ( 5 ) = 4.490  
 X/LNF .250 .500 .750  
 PHI .000 -.1750 -.1840  
 90.000 -.1870 -.1840 -.1830  
 135.000 -.1460 -.1610 -.1890  
 180.000 .1160 .1560 -.1730  
 225.000 -.1890 -.1620 -.1700  
 270.000 -.1840 -.1770 -.1810

MACH ( 3 ) = 3.542 BETAT ( 6 ) = 6.700  
 X/LNF .250 .500 .750  
 PHI .000 -.1720 -.1790  
 90.000 -.1800 -.1840 -.1840  
 135.000 -.1650 -.1700 -.1840  
 180.000 .1660 .1660 -.1860  
 225.000 -.1830 .1140 -.1860  
 270.000 -.1840 -.1810 -.1810

MACH ( 3 ) = 3.542 BETAT ( 7 ) = 8.910  
 X/LNF .250 .500 .750  
 PHI .000 -.1790 -.1860  
 90.000 -.1860 -.1880 -.1870  
 135.000 -.1890 -.1910 -.1860  
 180.000 .1890 .1860 -.1890  
 225.000 -.1760 .1510 -.1840  
 270.000 -.1930 -.1850 -.1860

REFERENCE DATA

SREF = 2.4210 50.FT. XMRP = 20.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .1400 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .1300 SCALE

PARAMETRIC DATA

ALPHAT = -4.1000 ORBINC = .5000  
 RUDDER = -10.1000 ELEVON = .0000  
 RUDFLR = .0000

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499 BETAT ( 1 ) = -0.420

X/LNP	.250	.500	.750
PHI			
.000	-.1360	-.1370	
90.000	-.1400	-.1380	-.1350
135.000	-.1500	-.1690	-.1370
180.000	-.1470	-.1110	-.1480
225.000	-.1510	-.1460	-.1410
270.000	-.1390	-.1480	-.1390

MACH ( 1 ) = 2.499 BETAT ( 2 ) = -0.300

X/LNP	.250	.500	.750
PHI			
.000	-.1340	-.1370	
90.000	-.1400	-.1360	-.1330
135.000	-.1740	-.1180	-.1310
180.000	-.1520	-.1410	-.1370
225.000	-.1370	-.1410	-.1360
270.000	-.1410	-.1410	-.1370

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.100

X/LNP	.250	.500	.750
PHI			
.000	-.1360	-.1400	
90.000	-.1430	-.1410	-.1340
135.000	-.1680	-.1360	-.1350
180.000	-.1340	-.1400	-.1400
225.000	-.1390	-.1330	-.1370
270.000	-.1450	-.1350	-.1390

MACH ( 1 ) = 2.499 BETAT ( 4 ) = .000

X/LNP	.250	.500	.750
PHI			
.000	-.1310	-.1320	
90.000	-.1340	-.1320	-.1320
135.000	-.1450	-.1390	-.1310
180.000	-.1970	-.1460	-.1300
225.000	-.1480	-.1360	-.1310
270.000	-.1360	-.1370	-.1320

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.310

X/LNP	.250	.500	.750
PHI			
.000	-.1340	-.1360	
90.000	-.1400	-.1380	-.1380
135.000	-.1510	-.1210	-.1370
180.000	-.1980	-.1160	-.1350
225.000	-.1510	-.1290	-.1370

AMES 07-737 IA9 OSA + 83 + T9 UPPER MPS NOZZLE

(R0ND18)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310 X/LNP .250 .500 .750  
PHI

270.000 -.1410 -.1310 -.1350

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 5.430

X/LNP .250 .500 .750  
PHI

.000 -.1340 -.1390  
90.000 -.1420 -.1380 -.1380  
135.000 -.1470 -.1390 -.1390  
180.000 .0830 .0630 -.1370  
225.000 -.0920 -.1150 -.1460  
270.000 -.1410 -.1410 -.1350

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.560

X/LNP .250 .500 .750  
PHI

.000 -.1360 -.1370  
90.000 -.1410 -.1390 -.1380  
135.000 -.1560 -.1510 -.1390  
180.000 .1230 .0860 -.1380  
225.000 -.0780 -.1120 -.1460  
270.000 -.1410 -.1370 -.1340

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.560

X/LNP .250 .500 .750  
PHI

.000 -.1130 -.1160  
90.000 -.1110 -.1090 -.1070  
135.000 -.0360 -.0240 -.1060  
180.000 .0660 .0380 -.1080  
225.000 -.1140 -.1120 -.1100  
270.000 -.1080 -.1130 -.1070

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.260

X/LNP .250 .500 .750  
PHI

.000 -.1560 -.1120  
90.000 -.1100 -.1100 -.1100  
135.000 -.0270 -.0730 -.1080  
180.000 .1320 .0380 -.1060  
225.000 -.0930 -.0830 -.1160  
270.000 -.1140 -.1120 -.1100

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .060

X/LNP .250 .500 .750  
PHI

.000 -.1050 -.1070  
90.000 -.1110 -.1090 -.1070  
135.000 -.0420 -.0500 -.1090  
180.000 .0910 .0160 -.1020  
225.000 -.0490 -.0430 -.1130  
270.000 -.1430 -.1130

AMES 07-707 IAS ODA + S3 + T9 UPPER MPS NOZZLE

(ORNDORF)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -0.60

X/LNP	.250	.500	.750
PHI			
270.000	-.1090	-.1090	-.1070

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.390

X/LNP	.250	.500	.750
PHI			
.000	-.1090	-.1070	
90.000	-.1120	-.1120	-.1090
135.000	-.1080	-.1090	-.1070
180.000	.1240	.1040	-.1060
225.000	-.1040	-.1030	-.1090
270.000	-.1070	-.1090	-.1070

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 0.720

X/LNP	.250	.500	.750
PHI			
.000	-.1070	-.1090	
90.000	-.1090	-.1100	-.1090
135.000	-.1220	-.1140	-.1070
180.000	.1400	.1730	-.1180
225.000	-.1020	-.1080	-.1140
270.000	-.1140	-.1160	-.1090

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.700

X/LNP	.250	.500	.750
PHI			
.000	-.1030	-.1020	
90.000	-.1030	-.1060	-.1030
135.000	-.1170	-.1010	-.1020
180.000	.1290	.1000	-.1090
225.000	-.1040	-.1090	-.1010
270.000	-.1030	-.1010	-.1080

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -0.530

X/LNP	.250	.500	.750
PHI			
.000	-.1000	-.1010	
90.000	-.1040	-.1070	-.1060
135.000	-.1030	-.1010	-.1060
180.000	.1010	.1060	-.1060
225.000	-.1030	-.1060	-.1070
270.000	-.1020	-.1070	-.1090

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330

X/LNP	.250	.500	.750
PHI			
.000	-.1080	-.1060	
90.000	-.1090	-.1090	-.1030
135.000	-.1020	-.1060	-.1060
180.000	.1030	.1140	-.1030
225.000	-.1070	-.1090	-.1060

TABULATED PRESSURE DATA - IAGC

(FIND18)

AVES 97-707 3AS OGA + S3 + T9 UPPER WFS NOZZLE

SECTION 1 1) WFS NOZZLE DEPENDENT VARIABLE CP

MACH (3) = 3.5/2 BETAT (3) = -4.335  
 Y/LNF .255 .555 .755  
 PHI 275.1111 -1.085 -1.095 -1.075

MACH (3) = 3.5/2 BETAT (4) = .545  
 Y/LNF .555 -1.078 -1.082  
 PHI 90.1111 -1.095 -1.095 -1.095  
 135.1111 -1.095 -1.095 -1.095  
 180.1111 .5745 .5745 -1.095  
 225.1111 -1.095 -1.095 -1.095  
 275.1111 -1.085 -1.095 -1.085

MACH (3) = 3.5/2 BETAT (5) = 4.475  
 Y/LNF .255 .555 .755  
 PHI 90.1111 -1.085 -1.095  
 135.1111 -1.095 -1.095 -1.085  
 180.1111 .5755 .5755 -1.085  
 225.1111 -1.085 -1.095 -1.095  
 275.1111 -1.095 -1.085 -1.085

MACH (3) = 3.5/2 BETAT (6) = 6.675  
 Y/LNF .255 .555 .755  
 PHI 90.1111 -1.085 -1.095  
 135.1111 -1.095 -1.095 -1.095  
 180.1111 .5855 .5855 -1.095  
 225.1111 -1.095 -1.095 -1.095  
 275.1111 -1.095 -1.095 -1.095

MACH (3) = 3.5/2 BETAT (7) = 9.875  
 Y/LNF .255 .555 .755  
 PHI 90.1111 -1.085 -1.095  
 135.1111 -1.095 -1.095 -1.095  
 180.1111 .5955 .5955 -1.095  
 225.1111 -1.095 -1.095 -1.095  
 275.1111 -1.095 -1.095 -1.095

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5350 INCHES  
 LREF = 39.8490 INCHES YMRP = .5550 INCHES  
 BREF = 39.8490 INCHES ZMRP = .5550 INCHES  
 SCALE = .0320 SCALE

PARAMETRIC DATA

ALPHA = .500 ORBINC = .500  
 RUDDER = -10.500 ELEVON = .500  
 RUDEFL = .500

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499 BETAT ( 1 ) = -8.430

X/LNP PHI	.250	.500	.750
.000	-.1470	-.1480	
90.000	-.1490	-.1510	-.1510
135.000	-.1510	-.1370	-.1490
180.000	-.1580	.5610	-.1590
225.000	-.1590	-.1540	-.1510
270.000	-.1690	-.1580	-.1470

MACH ( 1 ) = 2.499 BETAT ( 2 ) = -6.310

X/LNP PHI	.250	.500	.750
.000	-.1490	-.1490	
90.000	-.1500	-.1480	-.1470
135.000	-.1590	-.1310	-.1470
180.000	.0130	-.5490	-.1500
225.000	-.1500	-.1540	-.1470
270.000	-.1530	-.1590	-.1450

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.180

X/LNP PHI	.250	.500	.750
.000	-.1490	-.1480	
90.000	-.1480	-.1400	-.1480
135.000	-.1180	-.1360	-.1460
180.000	.0470	-.0900	-.1480
225.000	-.1550	-.1320	-.1480
270.000	-.1510	-.1590	-.1490

MACH ( 1 ) = 2.499 BETAT ( 4 ) = .060

X/LNP PHI	.250	.500	.750
.000	-.1420	-.1420	
90.000	-.1490	-.1420	-.1490
135.000	-.1510	-.1500	-.1440
180.000	.5440	.0270	-.1430
225.000	-.1970	-.1480	-.1490
270.000	-.1460	-.1480	-.1410

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.300

X/LNP PHI	.250	.500	.750
.000	-.1420	-.1470	
90.000	-.1510	-.1470	-.1480
135.000	-.1590	-.1440	-.1460
180.000	.0360	-.0170	-.1470
225.000	-.1280	-.1410	-.1490



## AMES 87-717 1A9 ORA + S3 + T9 UPPER NPS NOZZLE (RBN019)

## SECTION ( 1 ) NPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.340	X/LNP	.250	.500	.750
		PHI			
		270.000	-.1470	-.1430	-.1430
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.430	X/LNP	.250	.500	.750
		PHI			
		.000	-.1410	-.1430	
		90.000	-.1470	-.1460	-.1490
		135.000	-.1480	-.1480	-.1490
		180.000	-.0360	-.0460	-.1420
		225.000	-.1200	-.1460	-.1540
		270.000	-.1460	-.1470	-.1490
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.550	X/LNP	.250	.500	.750
		PHI			
		.000	-.1440	-.1460	
		90.000	-.1470	-.1460	-.1480
		135.000	-.1580	-.1560	-.1470
		180.000	.0400	.0620	-.1480
		225.000	-.1100	-.1320	-.1510
		270.000	-.1470	-.1350	-.1490
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.580	X/LNP	.250	.500	.750
		PHI			
		.000	-.1180	-.1120	
		90.000	-.1120	-.1120	-.1120
		135.000	-.0680	-.0600	-.1100
		180.000	.0170	.0250	-.1100
		225.000	-.1160	-.1140	-.1120
		270.000	-.1130	-.1140	-.1100
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.260	X/LNP	.250	.500	.750
		PHI			
		.000	-.1070	-.1140	
		90.000	-.1120	-.1120	-.1110
		135.000	-.0640	-.0860	-.1100
		180.000	.0470	.0500	-.1110
		225.000	-.1170	-.0900	-.1110
		270.000	-.1140	-.1130	-.1100
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	X/LNP	.250	.500	.750
		PHI			
		.000	-.1070	-.1100	
		90.000	-.1120	-.1120	-.1100
		135.000	-.0660	-.1120	-.1100
		180.000	.0460	.0450	-.1090
		225.000	-.0730	-.1080	-.1090

DATE 18 SEP 75 TABULATED PRESSURE DATA - 1A9C

AMES 87-707 1A9 OEA + S3 + T9 UPPER WFS NOZZLE (RBND19)

SECTION ( 1 ) WFS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .1465  
 X/LNP .250 .500 .750  
 PHI  
 270.000 -.1100 -.1070 -.1100

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.380  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.1110 -.1150  
 90.000 -.1160 -.1130  
 135.000 -.1110 -.1140  
 180.000 -.0790 -.1140  
 225.000 -.0790 -.1140  
 270.000 -.1140 -.1120

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 8.710  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.1100 -.1140  
 90.000 -.1130 -.1140  
 135.000 -.1230 -.1190  
 180.000 .0410 .0860  
 225.000 -.0730 -.0690  
 270.000 -.1120 -.1170

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.740  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.0850 -.0910  
 90.000 -.0940 -.0920  
 135.000 -.0390 -.0270  
 180.000 .0010 .0400  
 225.000 -.0940 -.0920  
 270.000 -.0920 -.0940

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.940  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.0820 -.0890  
 90.000 -.0890 -.0890  
 135.000 -.0420 -.0390  
 180.000 .0270 .0430  
 225.000 -.0860 -.0880  
 270.000 -.0910 -.0870

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.340  
 X/LNP .250 .500 .750  
 PHI  
 .000 -.0830 -.0890  
 90.000 -.0910 -.0940  
 135.000 -.0440 -.0280  
 180.000 .0780 .0320  
 225.000 -.0880 -.0730

(R8ND319)

AMES 87-717 IA9 O2A + S3 + T9 UPPER MPS NOZZLE

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.512 BETAT ( 3 ) = -4.340

X/LNP	.250	.500	.750
PHI			
270.140	-.1930	-.1940	-.1950

MACH ( 3 ) = 3.512 BETAT ( 4 ) = .160

X/LNP	.250	.500	.750
PHI			
.140	-.1780	-.1870	
90.140	-.1880	-.1880	-.1860
135.140	-.1930	-.1790	-.1890
180.140	-.1420	-.1420	-.1850
225.140	-.1340	-.1730	-.1830
270.140	-.1870	-.1770	-.1870

MACH ( 3 ) = 3.512 BETAT ( 5 ) = 4.460

X/LNP	.250	.500	.750
PHI			
.140	-.1850	-.1930	
90.140	-.1940	-.1940	-.1930
135.140	-.1770	-.1680	-.1940
180.140	-.1670	-.1740	-.1910
225.140	-.1530	-.1220	-.1910
270.140	-.1930	-.1910	-.1910

MACH ( 3 ) = 3.512 BETAT ( 6 ) = 6.660

X/LNP	.250	.500	.750
PHI			
.140	-.1830	-.1910	
90.140	-.1930	-.1930	-.1970
135.140	-.1910	-.1930	-.1940
180.140	-.1190	-.1570	-.1940
225.140	-.1510	-.1350	-.1920
270.140	-.1920	-.1850	-.1930

MACH ( 3 ) = 3.512 BETAT ( 7 ) = 8.860

X/LNP	.250	.500	.750
PHI			
.140	-.1870	-.1950	
90.140	-.1950	-.1960	-.1950
135.140	-.1990	-.1960	-.1980
180.140	-.1430	-.1610	-.1980
225.140	-.1530	-.1290	-.1990
270.140	-.1940	-.1930	-.1970

AMES 67-707 1A9 OCA + S3 + T9 UPPER MPS NOZZLE

(RBNDZU) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .10000 SCALE

## PARAMETRIC DATA

ALPHAT = 4.0000 ORBINC = .5000  
 RUDDER = -10.0000 ELEVON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499 BETAT ( 1 ) = -8.410

X/LNP	.250	.500	.750
PHI			
.000	-.1550	-.1570	
90.000	-.1590	-.1600	-.1570
135.000	-.1380	-.1460	-.1620
180.000	-.0580	-.0640	-.1660
225.000	-.1720	-.1600	-.1600
270.000	-.1590	-.1600	-.1600

MACH ( 1 ) = 2.499 BETAT ( 2 ) = -6.290

X/LNP	.250	.500	.750
PHI			
.000	-.1900	-.1530	
90.000	-.1540	-.1560	-.1530
135.000	-.1320	-.1460	-.1600
180.000	-.0290	-.0410	-.1540
225.000	-.1650	-.1610	-.1560
270.000	-.1550	-.1600	-.1540

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.170

X/LNP	.250	.500	.750
PHI			
.000	-.1440	-.1470	
90.000	-.1480	-.1470	-.1480
135.000	-.1170	-.1430	-.1490
180.000	-.0030	-.0510	-.1480
225.000	-.1550	-.1550	-.1480
270.000	-.1490	-.1550	-.1470

MACH ( 1 ) = 2.499 BETAT ( 4 ) = .060

X/LNP	.250	.500	.750
PHI			
.000	-.1410	-.1440	
90.000	-.1480	-.1470	-.1450
135.000	-.1640	-.1470	-.1500
180.000	-.0190	-.0220	-.1470
225.000	-.1610	-.1500	-.1460
270.000	-.1460	-.1500	-.1450

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.310

X/LNP	.250	.500	.750
PHI			
.000	-.1460	-.1500	
90.000	-.1520	-.1490	-.1490
135.000	-.1620	-.1510	-.1500
180.000	-.0440	-.0840	-.1500
225.000	-.1290	-.1520	-.1510

## AMES 87-707 IAG O2A + S3 + T9 UPPER WFS NOZZLE

(RBND25)

## SECTION: ( 1 ) WFS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.315

X/LNP	PHI	.250	.500	.750
270.000		-0.1530	-0.1530	-0.1560

MACH ( 1 ) = 2.499 BETAT ( 6 ) = 5.430

X/LNP	PHI	.250	.500	.750
.000		-0.1490	-0.1530	
90.000		-0.1570	-0.1550	-0.1520
135.000		-0.1660	-0.1590	-0.1560
180.000		-0.1780	-0.1520	-0.1570
225.000		-0.1460	-0.1540	-0.1560
270.000		-0.1550	-0.1530	-0.1530

MACH ( 1 ) = 2.499 BETAT ( 7 ) = 9.560

X/LNP	PHI	.250	.500	.750
.000		-0.1540	-0.1580	
90.000		-0.1590	-0.1580	-0.1570
135.000		-0.1690	-0.1620	-0.1570
180.000		-0.1800	-0.1320	-0.1580
225.000		-0.1390	-0.1490	-0.1630
270.000		-0.1580	-0.1500	-0.1560

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.570

X/LNP	PHI	.250	.500	.750
.000		-0.1160	-0.1210	
90.000		-0.1190	-0.1200	-0.1190
135.000		-0.1090	-0.1110	-0.1220
180.000		-0.1060	-0.1470	-0.1200
225.000		-0.1260	-0.1200	-0.1220
270.000		-0.1220	-0.1200	-0.1200

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.250

X/LNP	PHI	.250	.500	.750
.000		-0.1140	-0.1180	
90.000		-0.1180	-0.1190	-0.1170
135.000		-0.1030	-0.1130	-0.1190
180.000		-0.0210	-0.0170	-0.1180
225.000		-0.1270	-0.1070	-0.1180
270.000		-0.1190	-0.1080	-0.1170

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .560

X/LNP	PHI	.250	.500	.750
.000		-0.1130	-0.1130	
90.000		-0.1150	-0.1160	-0.1130
135.000		-0.1080	-0.1170	-0.1170
180.000		-0.2000	-0.0300	-0.1170
225.000		-0.1150	-0.1120	-0.1170

(88M02U)

AMES 07-707 1A9 ORA + S3 + T9 UPPER MPS NOZZLE

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -0.600 X/LNP .250 .500 .750  
PHI  
70.000 -0.1150 -0.1120 -0.1140

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.350 X/LNP .250 .500 .750  
PHI  
.000 -0.1150 -0.1200  
90.000 -0.1190 -0.1200 -0.1180  
135.000 -0.1230 -0.1210 -0.1210  
180.000 .0110 -0.0440 -0.1200  
225.000 -0.0960 -0.1120 -0.1200  
270.000 -0.1200 -0.1150 -0.1210

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 8.720 X/LNP .250 .500 .750  
PHI  
.000 -0.1170 -0.1210  
90.000 -0.1200 -0.1240 -0.1200  
135.000 -0.1280 -0.1240 -0.1210  
180.000 -0.0070 -0.0250 -0.1210  
225.000 -0.1000 -0.1100 -0.1200  
270.000 -0.1200 -0.1100 -0.1220

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.720 X/LNP .250 .500 .750  
PHI  
.000 -0.0970 -0.0970  
90.000 -0.0800 -0.0970 -0.0970  
135.000 -0.0600 -0.0630 -0.0950  
180.000 -0.0150 -0.0280 -0.0980  
225.000 -0.0900 -0.0900 -0.0970  
270.000 -0.0980 -0.0940 -0.0980

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -0.330 X/LNP .250 .500 .750  
PHI  
.000 -0.0930 -0.0940  
90.000 -0.0940 -0.0980 -0.0940  
135.000 -0.0680 -0.0610 -0.0980  
180.000 -0.0180 -0.0340 -0.0920  
225.000 -0.0910 -0.0910 -0.0950  
270.000 -0.0960 -0.0940 -0.0940

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330 X/LNP .250 .500 .750  
PHI  
.000 -0.0840 -0.0930  
90.000 -0.0910 -0.0920 -0.0930  
135.000 -0.0610 -0.0780 -0.0930  
180.000 .0240 -0.0110 -0.0930  
225.000 -0.0950 -0.0820 -0.0980

## AMES 87-707 IAS ORA + S3 + T9 UPPER MPS NOZZLE

(RBNDRU)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330

X/LNP	.250	.500	.750
PHI			
270.000	-1.0950	-1.0830	-1.0930

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .060

X/LNP	.250	.500	.750
PHI			
.000	-0.0790	-0.0900	
90.000	-0.0870	-0.0880	-0.0910
135.000	-0.0980	-0.0970	-0.0870
180.000	.0310	.0240	-0.0870
225.000	-0.0730	-0.0840	-0.0890
270.000	-0.0890	-0.0880	-0.0900

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.460

X/LNP	.250	.500	.750
PHI			
.000	-0.0870	-0.0960	
90.000	-0.0970	-0.0980	-0.0990
135.000	-0.0840	-0.0720	-0.0900
180.000	.0200	-0.0160	-0.0910
225.000	-0.0670	-0.0780	-0.0980
270.000	-0.0960	-0.0970	-0.0980

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.670

X/LNP	.250	.500	.750
PHI			
.000	-0.0880	-0.0960	
90.000	-0.0970	-0.0970	-0.0940
135.000	-0.0840	-0.0990	-0.0980
180.000	-0.0800	-0.0330	-0.0980
225.000	-0.0760	-0.0730	-0.0970
270.000	-0.0930	-0.0940	-0.0940

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 8.870

X/LNP	.250	.500	.750
PHI			
.000	-0.0860	-0.0960	
90.000	-0.0950	-0.0960	-0.0960
135.000	-0.1100	-0.0970	-0.0970
180.000	-0.1130	-0.1130	-0.0980
225.000	-0.0730	-0.0760	-0.0970
270.000	-0.0950	-0.0940	-0.0960

AMES 87-737 IAG OEA + S3 + T9 UPPER WPS NOZZLE

(RBND21) ( 15 MAY 73 )

REFERENCE DATA

SREF = 2.4215 58. FT. XORP = 28.5350 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0310 SCALE

PARAMETRIC DATA

ALPHAT = 6.1444 ORBINC = .5644  
 RUZZER = -10.1444 ELEVON = .1444  
 RUZFLR = .1650

SECTION ( 1 ) WPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499 BETAT ( 1 ) = -8.380

X/LNP	.250	.500	.750
PHI			
.000	-.1590	-.1610	
90.000	-.1620	-.1660	-.1620
135.000	-.1490	-.1570	-.1670
180.000	-.0760	-.0820	-.1670
225.000	-.1750	-.1690	-.1650
270.000	-.1630	-.1690	-.1620

MACH ( 2 ) = 2.499 BETAT ( 2 ) = -8.260

X/LNP	.250	.500	.750
PHI			
.000	-.1560	-.1570	
90.000	-.1620	-.1610	-.1580
135.000	-.1470	-.1490	-.1660
180.000	-.1430	-.1580	-.1570
225.000	-.1670	-.1640	-.1640
270.000	-.1620	-.1650	-.1590

MACH ( 3 ) = 2.499 BETAT ( 3 ) = -4.170

X/LNP	.250	.500	.750
PHI			
.000	-.1520	-.1520	
90.000	-.1550	-.1530	-.1510
135.000	-.1310	-.1490	-.1570
180.000	-.0310	-.0390	-.1530
225.000	-.1610	-.1570	-.1560
270.000	-.1550	-.1570	-.1540

MACH ( 4 ) = 2.499 BETAT ( 4 ) = .560

X/LNP	.250	.500	.750
PHI			
.000	-.1470	-.1490	
90.000	-.1490	-.1490	-.1480
135.000	-.1660	-.1540	-.1520
180.000	-.0070	-.0000	-.1520
225.000	-.1640	-.1530	-.1510
270.000	-.1490	-.1540	-.1460

MACH ( 5 ) = 2.499 BETAT ( 5 ) = 4.310

X/LNP	.250	.500	.750
PHI			
.000	-.1490	-.1530	
90.000	-.1540	-.1550	-.1530
135.000	-.1630	-.1530	-.1550
180.000	-.1410	-.1430	-.1520
225.000	-.1420	-.1590	-.1580



DATE 18 SEP 73

TABLATED PRESSURE DATA - IA9C  
AMES 87-757 IAS OGA + S3 + T9 UPPER MPS NOZZLE

(RBN021)

DEPENDENT VARIABLE CP

SECTION ( 1 ) MPS NOZZLE

MACH ( 1 ) = 2.099 BETAT ( 5 ) = 4.310  
X/LNP .250 .500 .750  
PHI  
275.000 -.1560 -.1570 -.1510

MACH ( 1 ) = 2.098 BETAT ( 6 ) = 6.440  
X/LNP .250 .500 .750  
PHI  
.000 -.1540 -.1590  
90.000 -.1600 -.1670 -.1580  
135.000 -.1660 -.1620 -.1670  
180.000 -.1690 -.1640 -.1630  
225.000 -.1530 -.1600 -.1630  
270.000 -.1620 -.1580 -.1570

MACH ( 1 ) = 2.099 BETAT ( 7 ) = 8.570  
X/LNP .250 .500 .750  
PHI  
.000 -.1540 -.1580  
90.000 -.1670 -.1590 -.1600  
135.000 -.1760 -.1650 -.1600  
180.000 -.1670 -.1690 -.1630  
225.000 -.1480 -.1560 -.1660  
270.000 -.1570 -.1580 -.1580

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.550  
X/LNP .250 .500 .750  
PHI  
.000 -.1190 -.1240  
90.000 -.1220 -.1260 -.1230  
135.000 -.1030 -.1070 -.1260  
180.000 -.1050 -.1080 -.1220  
225.000 -.1320 -.1270 -.1240  
270.000 -.1230 -.1280 -.1250

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.240  
X/LNP .250 .500 .750  
PHI  
.000 -.1170 -.1200  
90.000 -.1200 -.1200 -.1200  
135.000 -.1070 -.1100 -.1220  
180.000 -.1070 -.1060 -.1220  
225.000 -.1260 -.1110 -.1220  
270.000 -.1210 -.1140 -.1180

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .060  
X/LNP .250 .500 .750  
PHI  
.000 -.1110 -.1140  
90.000 -.1160 -.1160 -.1130  
135.000 -.1200 -.1150 -.1180  
180.000 .0120 -.0250 -.1160  
225.000 -.1240 -.1140 -.1160

DATE 18 SEP 73 TABULATED PRESSURE DATA - IA9C

(884021)

AMES 87-707 IA9 OZA + S3 + T9 UPPER MPS NOZZLE

SECTION ( 1 ) MPS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .580 X/LNP .250 .500 .750  
PHI  
270.140 -.1170 -.1160 -.1130

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.400 X/LNP .250 .500 .750  
PHI  
.160 -.1140 -.1180  
90.160 -.1250 -.1240 -.1170  
135.160 -.1210 -.1260 -.1240  
180.160 -.1200 -.1240 -.1160  
225.160 -.1180 -.1190 -.1220  
270.160 -.1180 -.1180 -.1240

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 8.750 X/LNP .250 .500 .750  
PHI  
.160 -.1180 -.1220  
90.160 -.1210 -.1240 -.1230  
135.160 -.1270 -.1240 -.1210  
180.160 -.1270 -.1270 -.1220  
225.160 -.1110 -.1150 -.1240  
270.160 -.1240 -.1190 -.1230

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.710 X/LNP .250 .500 .750  
PHI  
.160 -.1090 -.1090  
90.160 -.1090 -.1090 -.1090  
135.160 -.1070 -.1070 -.1090  
180.160 -.1080 -.1060 -.1070  
225.160 -.1090 -.1040 -.1060  
270.160 -.1090 -.1090 -.1090

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.510 X/LNP .250 .500 .750  
PHI  
.160 -.1080 -.1090  
90.160 -.1090 -.1080 -.1090  
135.160 -.1070 -.1060 -.1040  
180.160 -.1060 -.1040 -.1070  
225.160 -.1090 -.1090 -.1090  
270.160 -.1090 -.1090 -.1090

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.320 X/LNP .250 .500 .750  
PHI  
.160 -.1090 -.1090  
90.160 -.1090 -.1090 -.1090  
135.160 -.1090 -.1090 -.1090  
180.160 -.1120 -.1060 -.1090  
225.160 -.1090 -.1040 -.1040



DATE 19 SEP 73

TABLATED PRESSURE DATA - IASC

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AMES 87-707 IAS OEA + S3 + T9 UPPER MPS NOZZLE

(RBN021)

SECTION ( 1 ) MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.5/2 BETAT ( 3 ) = -4.320

X/LNP	.250	.500	.750
PHI			
270.000	-1.040	-1.020	-1.020

MACH ( 3 ) = 3.5/2 BETAT ( 4 ) = .060

X/LNP	.250	.500	.750
PHI			
.000	-1.090	-1.090	
90.000	-1.090	-1.020	-1.090
135.000	-1.090	-1.040	-1.060
180.000	.0120	-1.130	-1.090
225.000	-1.090	-1.020	-1.070
270.000	-1.040	-1.010	-1.090

MACH ( 3 ) = 3.5/2 BETAT ( 5 ) = 4.470

X/LNP	.250	.500	.750
PHI			
.000	-1.070	-1.060	
90.000	-1.090	-1.090	-1.040
135.000	-1.020	-1.080	-1.090
180.000	-1.040	-1.020	-1.010
225.000	-1.070	-1.090	-1.090
270.000	-1.040	-1.050	-1.060

MACH ( 3 ) = 3.5/2 BETAT ( 6 ) = 6.670

X/LNP	.250	.500	.750
PHI			
.000	-1.040	-1.090	
90.000	-1.090	-1.090	-1.090
135.000	-1.040	-1.090	-1.060
180.000	-1.190	-1.020	-1.090
225.000	-1.040	-1.090	-1.070
270.000	-1.040	-1.090	-1.090

MACH ( 3 ) = 3.5/2 BETAT ( 7 ) = 8.890

X/LNP	.250	.500	.750
PHI			
.000	-1.070	-1.090	
90.000	-1.070	-1.070	-1.040
135.000	-1.080	-1.070	-1.060
180.000	-1.100	-1.060	-1.070
225.000	-1.090	-1.090	-1.090
270.000	-1.060	-1.020	-1.090

ALPHAT = 0.1550 ORBINC = .5%  
 RUDDER = -10.1550 ELEVON = .1550  
 RUDDLR = .1550

PARAMETRIC DATA

REFERENCE DATA

SWCP = 2.4210 50.FT. AMRP = 28.5350 INCHES  
 LEEP = 39.8490 INCHES YMRP = .1550 INCHES  
 ZMRP = 39.8490 INCHES ZMRP = .1550 INCHES  
 SCALE = .1550 SCALE

DEPENDENT VARIABLE CP

SECTION ( 1 ) MPS NOZZLE  
 MACH ( 1 ) = 2.499 BETAT ( 1 ) = -0.375  
 X/LNP .250 .500 .750  
 PHI  
 .1550 -.1590 -.1630  
 90.1550 -.1640 -.1690 -.1630  
 135.1550 -.1510 -.1550 -.1670  
 180.1550 -.1750 -.1690 -.1640  
 225.1550 -.1720 -.1770 -.1690  
 270.1550 -.1670 -.1750 -.1640

MACH ( 1 ) = 2.499 BETAT ( 2 ) = -0.280  
 X/LNP .250 .500 .750  
 PHI  
 .1660 -.1590 -.1590  
 90.1660 -.1630 -.1630 -.1620  
 135.1660 -.1470 -.1520 -.1650  
 180.1660 -.1490 -.1680 -.1610  
 225.1660 -.1680 -.1650 -.1620  
 270.1660 -.1640 -.1650 -.1610

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.150  
 X/LNP .250 .500 .750  
 PHI  
 .1660 -.1510 -.1560  
 90.1660 -.1580 -.1560 -.1580  
 135.1660 -.1460 -.1560 -.1590  
 180.1660 -.1220 -.1390 -.1590  
 225.1660 -.1660 -.1590 -.1610  
 270.1660 -.1580 -.1620 -.1580

MACH ( 1 ) = 2.499 BETAT ( 4 ) = .100  
 X/LNP .250 .500 .750  
 PHI  
 .160 -.1510 -.1520  
 90.160 -.1530 -.1520 -.1520  
 135.160 -.1580 -.1510 -.1560  
 180.160 .1710 -.1740 -.1540  
 225.160 -.1690 -.1540 -.1520  
 270.160 -.1530 -.1540 -.1510

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.330  
 X/LNP .250 .500 .750  
 PHI  
 .160 -.1480 -.1560  
 90.160 -.1510 -.1510 -.1530  
 135.160 -.1610 -.1530 -.1530  
 180.160 -.1560 -.1590 -.1550  
 225.160 -.1510 -.1540 -.1540

AVES 07-757 IAG OBA + S3 + T9 UPPER MPS NOZZLE

(RBN022)

SECTION ( 1 ) 31MPS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.330

X/LNP	.250	.500	.750
PHI			
270.000	-.1150	-.1540	-.1510

MACH ( 1 ) = 2.499 BETAT ( 6 ) = 5.400

X/LNP	.250	.500	.750
PHI			
.000	-.1510	-.1590	
90.000	-.1560	-.1580	-.1580
135.000	-.1580	-.1580	-.1590
180.000	-.1440	-.1790	-.1620
225.000	-.1530	-.1510	-.1630
270.000	-.1580	-.1540	-.1590

MACH ( 1 ) = 2.499 BETAT ( 7 ) = 6.000

X/LNP	.250	.500	.750
PHI			
.000	-.1560	-.1610	
90.000	-.1630	-.1630	-.1630
135.000	-.1710	-.1670	-.1640
180.000	-.1660	-.1510	-.1660
225.000	-.1810	-.1610	-.1690
270.000	-.1520	-.1590	-.1620

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.930

X/LNP	.250	.500	.750
PHI			
.000	-.1100	-.1200	
90.000	-.1210	-.1290	-.1290
135.000	-.1110	-.1190	-.1290
180.000	-.1570	-.1710	-.1290
225.000	-.1220	-.1260	-.1240
270.000	-.1240	-.1260	-.1260

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.250

X/LNP	.250	.500	.750
PHI			
.000	-.1140	-.1170	
90.000	-.1190	-.1160	-.1170
135.000	-.1070	-.1140	-.1180
180.000	-.1130	-.1340	-.1180
225.000	-.1230	-.1120	-.1210
270.000	-.1100	-.1110	-.1180

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .500

X/LNP	.250	.500	.750
PHI			
.000	-.1130	-.1170	
90.000	-.1170	-.1160	-.1160
135.000	-.1260	-.1130	-.1170
180.000	-.1480	-.1430	-.1170
225.000	-.1240	-.1190	-.1170

AMES 87-707 IA9 ORA \* S3 \* T9 UPPER WFS NOZZLE

(RBH022)

## SECTION ( 1 ) WFS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .160  
 X/LJP .250 .500 .750  
 PHI  
 270.000 -0.1160 -0.1150 -0.1150

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.400  
 X/LJP .250 .500 .750  
 PHI  
 90.000 -0.1150 -0.1170  
 90.000 -0.1190 -0.1200 -0.1190  
 135.000 -0.1230 -0.1080 -0.1210  
 180.000 -0.0880 -0.0240 -0.1190  
 225.000 -0.0600 -0.1170 -0.1210  
 270.000 -0.1190 -0.1190 -0.1190

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 8.700  
 X/LJP .250 .500 .750  
 PHI  
 90.000 -0.1190 -0.1210  
 90.000 -0.1250 -0.1230 -0.1230  
 135.000 -0.1260 -0.1280 -0.1240  
 180.000 -0.0430 -0.0890 -0.1250  
 225.000 -0.1210 -0.1190 -0.1270  
 270.000 -0.1230 -0.1190 -0.1240

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.680  
 X/LJP .250 .500 .750  
 PHI  
 90.000 -0.0800 -0.0970  
 90.000 -0.0960 -0.0970 -0.0980  
 135.000 -0.0840 -0.0820 -0.0900  
 180.000 -0.0520 -0.0500 -0.0900  
 225.000 -0.0920 -0.0880 -0.0930  
 270.000 -0.0960 -0.0930 -0.0930

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -0.490  
 X/LJP .250 .500 .750  
 PHI  
 90.000 -0.0870 -0.0970  
 90.000 -0.0990 -0.0970 -0.0990  
 135.000 -0.0860 -0.0860 -0.0970  
 180.000 -0.0550 -0.0420 -0.0950  
 225.000 -0.0950 -0.0940 -0.0950  
 270.000 -0.0920 -0.0940 -0.0950

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -0.310  
 X/LJP .250 .500 .750  
 PHI  
 90.000 -0.0860 -0.0980  
 90.000 -0.0960 -0.0900 -0.0950  
 135.000 -0.0760 -0.0800 -0.0960  
 180.000 -0.0400 -0.0460 -0.0970  
 225.000 -0.0950 -0.0930 -0.0980

AMES 87-757 IAS OEA + S3 + T9 UPPER MPS NOZZLE

(R8M022)

## SECTION ( 1 ) MPS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.310

X/LNF	.250	.500	.750
PHI			
270.000	-.1970	-.0880	-.0980

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .060

X/LNF	.250	.500	.750
PHI			
.000	-.0850	-.0920	
90.000	-.0930	-.0930	-.0920
135.000	-.1010	-.0940	-.0940
180.000	-.1030	-.0910	-.0910
225.000	-.0970	-.0910	-.0930
270.000	-.0930	-.0920	-.0930

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.480

X/LNF	.250	.500	.750
PHI			
.000	-.0860	-.0970	
90.000	-.0950	-.0970	-.0970
135.000	-.0880	-.0770	-.0980
180.000	-.0810	-.0360	-.0960
225.000	-.0870	-.0910	-.0980
270.000	-.0930	-.0910	-.0970

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.700

X/LNF	.250	.500	.750
PHI			
.000	-.0870	-.0960	
90.000	-.0930	-.0960	-.0930
135.000	-.0920	-.0940	-.0950
180.000	-.0920	-.0920	-.0930
225.000	-.0880	-.0890	-.0950
270.000	-.0930	-.0940	-.0930

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 8.910

X/LNF	.250	.500	.750
PHI			
.000	-.0870	-.0970	
90.000	-.0970	-.0970	-.0960
135.000	-.1020	-.0980	-.0990
180.000	-.1020	-.0980	-.1040
225.000	-.0940	-.0890	-.1040
270.000	-.0980	-.0880	-.0970

AMES 87-707 IA9 ORA + S3 + T9 OMS NOZZLE

(RBNEU3) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0030 SCALE

## PARAMETRIC DATA

BETAT = .000 ORBINC = .500  
 RUDDER = .000 ELEVON = .000  
 RUDPLR = .000

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 ALPHAT( 1 ) = -8.100  
 X/LNM .200 .400  
 PHI  
 135.000 .3370  
 180.000 .3380  
 225.000 .5750

MACH ( 1 ) = 2.498 ALPHAT( 2 ) = -6.070  
 X/LNM .200 .400  
 PHI  
 135.000 .3190  
 180.000 .3130  
 225.000 .5210

MACH ( 1 ) = 2.498 ALPHAT( 3 ) = -4.030  
 X/LNM .200 .400  
 PHI  
 135.000 .2910  
 180.000 .2810  
 225.000 .4270

MACH ( 1 ) = 2.498 ALPHAT( 4 ) = -2.000  
 X/LNM .200 .400  
 PHI  
 135.000 .2650  
 180.000 .2440  
 225.000 .3320

MACH ( 1 ) = 2.498 ALPHAT( 5 ) = .000  
 X/LNM .200 .400  
 PHI  
 135.000 .2650  
 180.000 .2460  
 225.000 -.0570

MACH ( 1 ) = 2.498 ALPHAT( 6 ) = 1.930  
 X/LNM .200 .400  
 PHI  
 135.000 .2000  
 180.000 .2240  
 225.000 -.2190

MACH ( 1 ) = 2.498 ALPHAT( 7 ) = 3.860  
 X/LNM .200 .400  
 PHI  
 135.000 .1000  
 180.000 .1500  
 225.000 -.4050



DATE 10 SEP 73 TABULATED PRESSURE DATA - IASC

AMES 97-707 IAS O2A + S3 + T9 OMS NOZZLE

(RBNE:1)

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	ALPHAT( 8 ) = 5.930	X/LNM	.200	.400
		PHI		
		135.1600	.1270	
		180.1600	.1120	.2610
		225.1600	-.0570	
MACH ( 1 ) = 2.498	ALPHAT( 9 ) = 8.010	X/LNM	.200	.400
		PHI		
		135.1600	.0900	
		180.1600	.0750	.1980
		225.1600	-.0600	
MACH ( 2 ) = 2.999	ALPHAT( 1 ) = -8.070	X/LNM	.200	.400
		PHI		
		135.1600	.2280	
		180.1600	.2930	.3700
		225.1600	.0570	
MACH ( 2 ) = 2.999	ALPHAT( 2 ) = -6.100	X/LNM	.200	.400
		PHI		
		135.1600	.1980	
		180.1600	.2490	.3370
		225.1600	.0360	
MACH ( 2 ) = 2.999	ALPHAT( 3 ) = -4.070	X/LNM	.200	.400
		PHI		
		135.1600	.1640	
		180.1600	.2140	.3190
		225.1600	.0240	
MACH ( 2 ) = 2.999	ALPHAT( 4 ) = -2.000	X/LNM	.200	.400
		PHI		
		135.1600	.1380	
		180.1600	.1620	.2910
		225.1600	.0110	
MACH ( 2 ) = 2.999	ALPHAT( 5 ) = -.000	X/LNM	.200	.400
		PHI		
		135.1600	.1330	
		180.1600	.1560	.2680
		225.1600	-.0430	
MACH ( 2 ) = 2.999	ALPHAT( 6 ) = 1.930	X/LNM	.200	.400
		PHI		
		135.1600	.1200	
		180.1600	.1540	.2320
		225.1600	-.0400	

## AMES 87-707 1A9 ORA + S3 + T9 OMS NOZZLE

(RENE:11)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 ALPHAT( 7 ) = 3.960 X/LNM .200 .400  
 PHI  
 135.1660 .1190  
 180.1660 .1190 .1870  
 225.1660 -.0280

MACH ( 2 ) = 2.999 ALPHAT( 8 ) = 5.990 X/LNM .200 .400  
 PHI  
 135.1660 .0660  
 180.1660 .1910 .1920  
 225.1660 -.0670

MACH ( 2 ) = 2.999 ALPHAT( 9 ) = 8.160 X/LNM .200 .400  
 PHI  
 135.1660 .0520  
 180.1660 .0640 .1030  
 225.1660 -.0380

MACH ( 3 ) = 3.502 ALPHAT( 1 ) = -8.080 X/LNM .200 .400  
 PHI  
 135.1660 .1870  
 180.1660 .2350 .2560  
 225.1660 .0510

MACH ( 3 ) = 3.502 ALPHAT( 2 ) = -6.080 X/LNM .200 .400  
 PHI  
 135.1660 .1490  
 180.1660 .1990 .2250  
 225.1660 .0280

MACH ( 3 ) = 3.502 ALPHAT( 3 ) = -4.070 X/LNM .200 .400  
 PHI  
 135.1660 .1220  
 180.1660 .1580 .2130  
 225.1660 .0410

MACH ( 3 ) = 3.502 ALPHAT( 4 ) = -2.020 X/LNM .200 .400  
 PHI  
 135.1660 .0820  
 180.1660 .1340 .2190  
 225.1660 .0470

MACH ( 3 ) = 3.502 ALPHAT( 5 ) = -.030 X/LNM .200 .400  
 PHI  
 135.1660 .0810  
 180.1660 .1150 .2150  
 225.1660 .0460

WAB TEST MESSAGE DATA - 1973

(SOME)

SECTION 1: 3.92 MZLE

DEPENDENT VARIABLE IS

WAB ( 3 ) = 3.92 ALPHAT( 9 ) = 3.92

WAB	1/1/73	.20	.40
PHI			
135.000	1.40		
150.000	1.50		
225.000	1.60		

WAB ( 3 ) = 3.92 ALPHAT( 9 ) = 3.92

WAB	1/1/73	.20	.40
PHI			
135.000	1.520		
150.000	1.570		
225.000	1.617		

WAB ( 3 ) = 3.92 ALPHAT( 9 ) = 3.92

WAB	1/1/73	.20	.40
PHI			
135.000	1.536		
150.000	1.550		
225.000	1.561		

WAB ( 3 ) = 3.92 ALPHAT( 9 ) = 3.92

WAB	1/1/73	.20	.40
PHI			
135.000	1.551		
150.000	1.562		
225.000	1.570		



DATE 18 SEP 73

TABLATED PRESSURE DATA - 149C  
 AMES N7-N17 1A9 CEA + S3 + T9 OMS NOZZLE

(PDR)E1/2

SECTION: 149C NOZZLE DEPENDENT VARIABLE: CO

MACH ( 2 ) = 2.459	BETAT ( 5 ) = 0.57	X/LPM PHI	Z	Y/LPM PHI	Z
		135.000	.0370	.400	.400
		180.000	.2210	.400	.400
		225.000	-.1180	.400	.400
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -0.560	X/LPM PHI	Z	Y/LPM PHI	Z
		135.000	.3200	.400	.400
		180.000	.2400	.400	.400
		225.000	.1200	.400	.400
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -5.400	X/LPM PHI	Z	Y/LPM PHI	Z
		135.000	.2810	.400	.400
		180.000	.2390	.400	.400
		225.000	.1920	.400	.400
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.150	X/LPM PHI	Z	Y/LPM PHI	Z
		135.000	.2350	.400	.400
		180.000	.3150	.400	.400
		225.000	.1630	.400	.400
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.220	X/LPM PHI	Z	Y/LPM PHI	Z
		135.000	.2.90	.400	.400
		180.000	.2810	.400	.400
		225.000	.1610	.400	.400
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.420	X/LPM PHI	Z	Y/LPM PHI	Z
		135.000	.2030	.400	.400
		180.000	.2720	.400	.400
		225.000	.1720	.400	.400
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.530	X/LPM PHI	Z	Y/LPM PHI	Z
		135.000	.1.570	.400	.400
		180.000	.2330	.400	.400
		225.000	.1500	.400	.400

DATE 20 SEP 73      TABULATED PRESSURE DATA - 1ASC  
 AMES 07-71.7 1A9 CEA + S3 + T9 OMS NOZZLE

(FERNELZ)

SECTION : 117MS NOZZLE	DEPENDENT VARIABLE CP		
MACH ( 2 ) = 2.999    BETAT ( 0 ) = 0.792	X/LNM PHI	.250	.470
	135.160	.0380	
	180.160	.1750	.1390
	225.160	-.0620	
MACH ( 3 ) = 3.542    BETAT ( 3 ) = -0.715	X/LNM PHI	.250	.470
	135.160	.2290	
	180.160	.1920	.3780
	225.160	.0780	
MACH ( 3 ) = 3.542    BETAT ( 2 ) = -0.525	X/LNM PHI	.250	.470
	135.160	.2490	
	180.160	.1680	.2680
	225.160	.1150	
MACH ( 3 ) = 3.542    BETAT ( 3 ) = -0.330	X/LNM PHI	.250	.470
	135.160	.2670	
	180.160	.2100	.2070
	225.160	.1090	
MACH ( 3 ) = 3.542    BETAT ( 4 ) = -2.140	X/LNM PHI	.250	.470
	135.160	.2260	
	180.160	.2090	.2770
	225.160	.0970	
MACH ( 3 ) = 3.542    BETAT ( 5 ) = 2.280	X/LNM PHI	.250	.470
	135.160	.1560	
	180.160	.2190	.2790
	225.160	.0980	
MACH ( 3 ) = 3.542    BETAT ( 6 ) = 4.400	X/LNM PHI	.250	.470
	135.160	.1450	
	180.160	.1860	.2800
	225.160	.0980	
MACH ( 3 ) = 3.542    BETAT ( 7 ) = 6.080	X/LNM PHI	.250	.470
	135.160	.0970	
	180.160	.1390	.2330
	225.160	-.0640	

AVES 87-707 1A9 O2A + S3 + T9 OMS NOZZLE

(RBNELC)

SECTION ( 3 ) OMS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.542	BETAT ( 8 ) = 8.910	X/LIN	.200	.400
		PHI		
		135.000	.1640	
		180.000	.5950	.2110
		225.000	-.0420	

AMES 87-757 IAS OEA + S3 + T9 ONS NOZZLE

(IRBME03) ( 10 MAY 75 )

## REFERENCE DATA

SWEP = 2.4210 SQ.FT.    XMRP = 20.5310 INCHES  
 LREF = 39.8495 INCHES    YMRP = .0000 INCHES  
 SWEP = 39.8495 INCHES    ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHAT = -6.000    ORBINC = .500  
 RUDDER = .000    ELEVON = .000  
 RUDFLR = .000

## SECTION ( 1 ) ONS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -6.420	X/LNM	PHI	PHI
		.200	.400	.400
		.350	.3540	.3540
		.500	.2960	.3270
		.650	.2160	.2160
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.290	X/LNM	PHI	PHI
		.200	.400	.400
		.350	.3990	.3990
		.500	.3290	.4080
		.650	.2790	.2790
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	X/LNM	PHI	PHI
		.200	.400	.400
		.350	.3890	.3890
		.500	.3910	.5000
		.650	.5690	.5690
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	X/LNM	PHI	PHI
		.200	.400	.400
		.370	.3760	.3760
		.500	.3900	.5700
		.670	.5740	.5740
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.100	X/LNM	PHI	PHI
		.200	.400	.400
		.220	.2270	.2270
		.350	.3550	.4110
		.500	.5390	.5390
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.310	X/LNM	PHI	PHI
		.200	.400	.400
		.350	.1340	.1340
		.500	.3370	.2540
		.650	.5240	.5240
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.440	X/LNM	PHI	PHI
		.200	.400	.400
		.350	.5540	.5540
		.500	.2970	.1420
		.650	.5530	.5530



DATE 18 SEP 73 TABULATED PRESSURE DATA - IASFC  
 AMES 87-757 IAG ORA + S3 + T9 OMS NOZZLE  
 (REHEATS)

SECTION ( 1 ) OMS NOZZLE	DEPENDENT VARIABLE CP			
MACH ( 1 ) = 2.498 BETAT ( 8 ) = 0.575	X/LNM	.250	.400	
	PHI			
	135.500	.5810		
	180.500	.1660	.0710	
	225.500	-.1275		
MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.575	X/LNM	.250	.400	
	PHI			
	135.500	.2950		
	180.500	.1990	.3610	
	225.500	.1950		
MACH ( 2 ) = 2.999 BETAT ( 2 ) = -0.420	X/LNM	.250	.400	
	PHI			
	135.500	.2750		
	180.500	.2140	.2730	
	225.500	.1575		
MACH ( 2 ) = 2.999 BETAT ( 3 ) = -0.260	X/LNM	.250	.400	
	PHI			
	135.500	.2500		
	180.500	.2450	.2080	
	225.500	.1810		
MACH ( 2 ) = 2.999 BETAT ( 4 ) = -0.100	X/LNM	.250	.400	
	PHI			
	135.500	.2300		
	180.500	.2750	.3280	
	225.500	.1490		
MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.220	X/LNM	.250	.400	
	PHI			
	135.500	.1780		
	180.500	.2480	.4150	
	225.500	.1680		
MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.390	X/LNM	.250	.400	
	PHI			
	135.500	.1770		
	180.500	.2470	.3120	
	225.500	.1660		
MACH ( 2 ) = 2.999 BETAT ( 7 ) = 0.580	X/LNM	.250	.400	
	PHI			
	135.500	.1680		
	180.500	.2230	.1910	
	225.500	-.1210		

AMES 87-717 1A9 ODA + S3 + T9 OMS NOZZLE

(RPM=13)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 0 ) = 0.720

X/LNM	Y/LNM	Z/LN	CP
135.110	.1370	.070	
180.110	.1400	.0700	
225.110	-.1000		

MACH ( 3 ) = 3.512 BETAT ( 1 ) = -0.730

X/LNM	Y/LNM	Z/LN	CP
135.110	.2100	.070	
180.110	.1710	.3070	
225.110	.1400		

MACH ( 3 ) = 3.512 BETAT ( 2 ) = -0.330

X/LNM	Y/LNM	Z/LN	CP
135.110	.2100	.070	
180.110	.1410	.2010	
225.110	.1010		

MACH ( 3 ) = 3.512 BETAT ( 3 ) = -4.300

X/LNM	Y/LNM	Z/LN	CP
135.110	.2100	.070	
180.110	.1510	.2190	
225.110	.0700		

MACH ( 3 ) = 3.512 BETAT ( 4 ) = -2.100

X/LNM	Y/LNM	Z/LN	CP
135.110	.1010	.070	
180.110	.1000	.2330	
225.110	.0370		

MACH ( 3 ) = 3.512 BETAT ( 5 ) = 2.200

X/LNM	Y/LNM	Z/LN	CP
135.110	.1300	.070	
180.110	.1000	.2000	
225.110	.1400		

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.070

X/LNM	Y/LNM	Z/LN	CP
135.110	.1000	.070	
180.110	.1000	.2430	
225.110	.0300		

MACH ( 3 ) = 3.512 BETAT ( 7 ) = 0.000

X/LNM	Y/LNM	Z/LN	CP
135.110	.1400	.070	
180.110	.1400	.1600	
225.110	.0300		

X/LNM	Y/LNM	Z/LN	CP
135.110	.1400	.1600	
180.110	.1200	.1600	
225.110	-.0100		

DATE 18 SEP 73

TABULATED PRESSURE DATA - IASC

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AMES 87-707 1A9 OBA + S3 + T9 OMS NOZZLE

(F8N6U3)

SECTION ( 1 ) OMS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.942	BETA ( 8 ) = 0.092	X/LNM	Z/LD	.4750
		SHI		
		139.1663	0.530	
		189.5660	0.9766	0.1425
		228.1460	-0.5595	



AVES 87-757 1A9 O2A + 53 + 19 OMS NOZZLE

(RBNELM) ( 15 MAY 73 )

## REFERENCE DATA

SWEP = 2.4215 50. FT. XORP = 28.5370 INCHES  
 WREP = 39.8495 INCHES YWRP = 1.5555 INCHES  
 ZREP = 39.8495 INCHES ZWRP = 1.5555 INCHES  
 SCALE = 1/3750 SCALE

## PARAMETRIC DATA

ALPHAT = -4.5500 CRBTMC = .5500  
 RUDDER = .1500 ELEVON = .5500  
 RUDELR = .1500

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -0.430	X/LNM	PHI	CP
		135.550	.2440	.3380
		180.550	.1840	.3390
		225.550	.1790	.3450
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -0.315	X/LNM	PHI	CP
		135.550	.3550	.410
		180.550	.2360	.3450
		225.550	.1650	.4420
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -0.190	X/LNM	PHI	CP
		135.550	.3280	.410
		180.550	.3020	.3410
		225.550	.1610	.4420
MACH ( 1 ) = 2.498	BETAT ( 4 ) = 2.180	X/LNM	PHI	CP
		135.550	.1810	.410
		180.550	.3220	.3200
		225.550	.1540	.3200
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.300	X/LNM	PHI	CP
		135.550	.1650	.410
		180.550	.2950	.1540
		225.550	-.1070	.1540
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.430	X/LNM	PHI	CP
		135.550	.1510	.410
		180.550	.2620	.1600
		225.550	-.1460	.1600

AXES 87-707 IAS OCA + S3 + T9 OMS NOZZLE

(RBNE14)

SECTION ( 1 ) OMS NOZZLE	DEPENDENT VARIABLE CP
MACH ( 1 ) = 2.498 BETAT ( 0 ) = 0.595	X/LNM .210 .400 PHI
	135.160 .1280
	180.160 .1340
	225.160 -.1390
MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.590	X/LNM .210 .400 PHI
	135.160 .2430
	180.160 .1710
	225.160 .1610
MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.420	X/LNM .210 .400 PHI
	135.160 .2380
	180.160 .1560
	225.160 .1680
MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.280	X/LNM .210 .400 PHI
	135.160 .2110
	180.160 .1970
	225.160 .1710
MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.110	X/LNM .210 .400 PHI
	135.160 .1760
	180.160 .2390
	225.160 .1470
MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.210	X/LNM .210 .400 PHI
	135.160 .1540
	180.160 .2230
	225.160 .1560
MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.360	X/LNM .210 .400 PHI
	135.160 .1470
	180.160 .2240
	225.160 .1490
MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.590	X/LNM .210 .400 PHI
	135.160 .1510
	180.160 .2110
	225.160 -.1910

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 AMES 87-757 1A9 O2A + S3 + T9 OMS NOZZLE

(REVERSE)

## SECTION ( 1 ) OMS NOZZLE      DEPENDENT VARIABLE CF

MACH ( 2 ) = 2.999	BETAT ( 6 ) = 8.710	X/LNM	PHI	X/LNM	PHI
			.200		.410
		135.140	.1270		
		180.140	.0950		-.1180
		225.140	-.1030		
MACH ( 3 ) = 3.512	BETAT ( 1 ) = -8.740	X/LNM	PHI	X/LNM	PHI
			.200		.410
		135.140	.1840		
		180.140	.1350		.3500
		225.140	.0520		
MACH ( 3 ) = 3.512	BETAT ( 2 ) = -6.340	X/LNM	PHI	X/LNM	PHI
			.200		.410
		135.140	.1970		
		180.140	.1160		.2670
		225.140	.0570		
MACH ( 3 ) = 3.512	BETAT ( 3 ) = -4.340	X/LNM	PHI	X/LNM	PHI
			.200		.410
		135.140	.1590		
		180.140	.1150		.1820
		225.140	.0640		
MACH ( 3 ) = 3.512	BETAT ( 4 ) = -2.150	X/LNM	PHI	X/LNM	PHI
			.200		.410
		135.140	.1420		
		180.140	.1660		.2170
		225.140	.0620		
MACH ( 3 ) = 3.512	BETAT ( 5 ) = 2.260	X/LNM	PHI	X/LNM	PHI
			.200		.410
		135.140	.1100		
		180.140	.1660		.2390
		225.140	.0360		
MACH ( 3 ) = 3.512	BETAT ( 6 ) = 4.460	X/LNM	PHI	X/LNM	PHI
			.200		.410
		135.140	.1270		
		180.140	.1380		.2860
		225.140	.0120		
MACH ( 3 ) = 3.512	BETAT ( 7 ) = 6.660	X/LNM	PHI	X/LNM	PHI
			.200		.410
		135.140	.0730		
		180.140	.0960		.1890
		225.140	-.0360		



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TABLATED PRESSURE DATA - IA9C

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AMES 87-7J7 IA9 C8A + S3 + T9 OMS NOZZLE

(RBNEJ4)

SECTION ( 170MS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3) = 3.912	SETAT ( R) = 1.875	X/LNW	.205	.411
		PHI		
		135.111	.1411	
		181.111	.1471	.1441
		225.111	-.1751	

AMES 87-707 IA9 ORA + S3 + T9 OMS NOZZLE

(RBNEUS) ( 10 MAY 73 )

## REFERENCE DATA

SRF = 2.421 50.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8495 INCHES YMRP = .03700 INCHES  
 PRF = 39.8495 INCHES ZMRP = .03000 INCHES  
 SCALE = .03000 SCALE

## PARAMETRIC DATA

ALPHAT = -2.1440 ORBINC = .5040  
 RUDDER = .0040 ELEVON = .0040  
 RUDFLR = .0040

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -6.430

X/LNM	PHI	CP
135.000	.1920	.400
180.000	.1300	.3000
225.000	.0490	

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.310

X/LNM	PHI	CP
135.000	.2600	.400
180.000	.1790	.3000
225.000	.0380	

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.190

X/LNM	PHI	CP
135.000	.2940	.400
180.000	.2040	.4120
225.000	.0420	

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.070

X/LNM	PHI	CP
135.000	.2880	.410
180.000	.2930	.4800
225.000	.0330	

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180

X/LNM	PHI	CP
135.000	.1430	.410
180.000	.2840	.2280
225.000	-.0260	

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.300

X/LNM	PHI	CP
135.000	.0530	.410
180.000	.2630	.0660
225.000	-.0420	

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.420

X/LNM	PHI	CP
135.000	-.0220	.410
180.000	.2390	-.0260
225.000	-.0840	



DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

(RBN6115)

AMES 87-71.7 IAG ORA + S3 + T9 OMS NOZZLE

SECTION ( 1 ) OMS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 0 ) = 0.541

X/LNM	PHI	CP
135.1610	-0.0200	.410
180.1610	.1130	-.0550
225.1610	-.1430	

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.590

X/LNM	PHI	CP
135.1610	.1930	.410
180.1610	.1510	.2980
225.1610	.1630	

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.440

X/LNM	PHI	CP
135.1610	.2070	.410
180.1610	.1160	.2750
225.1610	.0590	

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.270

X/LNM	PHI	CP
135.1610	.1770	.400
180.1610	.1370	.2470
225.1610	.0600	

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.110

X/LNM	PHI	CP
135.1610	.1390	.400
180.1610	.1920	.2840
225.1610	.0450	

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.220

X/LNM	PHI	CP
135.1610	.1240	.410
180.1610	.2030	.3240
225.1610	.0530	

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.370

X/LNM	PHI	CP
135.1610	.1290	.410
180.1610	.2130	.1710
225.1610	.0210	

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.530

X/LNM	PHI	CP
135.1610	.0380	.400
180.1610	.1980	.0180
225.1610	-.0780	

DATE 18 SEP 73

TABULATED PRESSURE DATA - 1A9C  
AVES 07-707 1A9 OCA + S3 + T9 OMS NOZZLE

(RBREUS)

SECTION ( 1 ) OMS NOZZLE	DEPENDENT VARIABLE CP		
MACH ( 2 ) = 2.999 BETAT ( 8 ) = 8.710	X/LNM	.210	.410
	PHI		
	135.160	.0450	
	180.160	.0320	-.0490
	225.160	-.1120	
MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.750	X/LNM	.210	.410
	PHI		
	135.160	.1750	
	180.160	.1070	.3190
	225.160	.0830	
MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.540	X/LNM	.210	.410
	PHI		
	135.160	.1460	
	180.160	.0780	.2540
	225.160	.0430	
MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.350	X/LNM	.210	.410
	PHI		
	135.160	.1070	
	180.160	.0670	.1720
	225.160	.0470	
MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140	X/LNM	.210	.410
	PHI		
	135.160	.0840	
	180.160	.0300	.1850
	225.160	.0390	
MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260	X/LNM	.210	.410
	PHI		
	135.160	.0850	
	180.160	.0380	.2280
	225.160	.0280	
MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.460	X/LNM	.210	.410
	PHI		
	135.160	.1190	
	180.160	.1210	.2520
	225.160	.0510	
MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.660	X/LNM	.210	.410
	PHI		
	135.160	.0850	
	180.160	.0840	.1620
	225.160	-.0470	



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TABULATED PRESSURE DATA - 1A9C

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AMES 97-757 1A9 02A + 53 + 19 CMS NOZZLE

(REV:5)

SECTION ( 1 ) CMS NOZZLE

DEFENS AT VARIABLE CP

MACH ( 3 ) = 3.512 BETAT ( 8 ) = 9.860

X/LSP .211 .422

PHI

135.026 .0145

180.116 .0075 -.0540

225.116 -.0070 -.1070

AMES 87-707 IAS OZA + S3 + T9 OMS NOZZLE

(RBNEL6) ( 15 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5360 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0390 SCALE

## PARAMETRIC DATA

ALPHAT = .0000 CRBINC = .9000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.430	X/LNM	PHI
		.200	.400
		.135-.000	.1390
		.180-.000	.0800
		.225-.000	.0690
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.310	X/LNM	PHI
		.200	.400
		.135-.000	.1690
		.180-.000	.1140
		.225-.000	.0820
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.190	X/LNM	PHI
		.200	.400
		.135-.000	.2620
		.180-.000	.1910
		.225-.000	.0170
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	X/LNM	PHI
		.200	.400
		.135-.000	.2470
		.180-.000	.2430
		.225-.000	.0680
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.170	X/LNM	PHI
		.200	.400
		.135-.000	.1210
		.180-.000	.2310
		.225-.000	-.0530
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.280	X/LNM	PHI
		.200	.400
		.135-.000	.0330
		.180-.000	.2260
		.225-.000	-.0620
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.410	X/LNM	PHI
		.200	.400
		.135-.000	-.0460
		.180-.000	.0130
		.225-.000	-.0670
			-.1260

AMES 87-707 1A9 ORA + S3 + T9 OMS NOZZLE

(RBNE)16

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 9.545

X/LNM	.250	.400
PHI		
135.140	.1610	
180.140	.1690	-.1670
225.140	-.1530	

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.595

X/LNM	.250	.400
PHI		
135.140	.1610	
180.140	.1310	.0820
225.140	.1690	

MACH ( 3 ) = 2.999 BETAT ( 2 ) = -8.430

X/LNM	.250	.400
PHI		
135.140	.1610	
180.140	.1990	.1940
225.140	.1550	

MACH ( 4 ) = 2.999 BETAT ( 3 ) = -4.270

X/LNM	.250	.400
PHI		
135.140	.1970	
180.140	.1930	.2580
225.140	.1360	

MACH ( 5 ) = 2.999 BETAT ( 4 ) = -2.110

X/LNM	.250	.400
PHI		
135.140	.1170	
180.140	.1590	.2760
225.140	.0320	

MACH ( 6 ) = 2.999 BETAT ( 5 ) = 2.210

X/LNM	.250	.400
PHI		
135.140	.0960	
180.140	.1650	.2520
225.140	.1340	

MACH ( 7 ) = 2.999 BETAT ( 6 ) = 4.370

X/LNM	.250	.400
PHI		
135.140	.1010	
180.140	.1910	.1640
225.140	-.1410	

MACH ( 8 ) = 2.999 BETAT ( 7 ) = 6.530

X/LNM	.250	.400
PHI		
135.140	.1290	
180.140	.1760	-.1250
225.140	-.1680	

DATE 18 SEP 73

TABULATED PRESSURE DATA - 1A9C  
APES 87-707 1A9 ORA + S3 + T9 OMS NOZZLE

(RBNEL6)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 0.690

X/LNM	PHI	CP
135.000	.0530	.400
180.000	.0550	-.0060
225.000	-.0150	

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.750

X/LNM	PHI	CP
135.000	.0550	.400
180.000	.0100	.2000
225.000	.0390	

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -0.950

X/LNM	PHI	CP
135.000	.0330	.400
180.000	.0600	.0340
225.000	.0760	

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -0.340

X/LNM	PHI	CP
135.000	.0750	.400
180.000	.0350	.1800
225.000	.0190	

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.150

X/LNM	PHI	CP
135.000	.0540	.400
180.000	.0660	.1480
225.000	.0180	

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260

X/LNM	PHI	CP
135.000	.0550	.400
180.000	.0590	.1690
225.000	.0460	

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.450

X/LNM	PHI	CP
135.000	.0570	.400
180.000	.0290	.1810
225.000	.0220	

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.650

X/LNM	PHI	CP
135.000	.0620	.400
180.000	.0630	.1110
225.000	-.0630	

DATE 18 SEP 73

TABULATED PRESSURE DATA - IA9C

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AMES 87-707 IA9 OCA + S3 + T9 OMS NOZZLE

(RBMEU6)

SECTION ( 1 ) OMS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.562 BETAT ( 8 ) = 8.890

X/LNH	.250	.410
PHI		
135.160	.5130	
180.170	-.1230	-.1790
225.180	-.5860	

AMES 87-737 1A9 OEA + 53 + 19 OMS NOZZLE

(BP/EST) ( 13 MAY 73 )

## REFERENCE DATA

WEP = 2.4215 38. FT. WAPP = 29.5335 INCHES  
 LWP = 39.8499 INCHES WMP = .1115 INCHES  
 SWP = 39.8499 INCHES ZWP = .1115 INCHES  
 SCALE = .1375 SCALE

## PARAMETRIC DATA

ALPHA = 2.1550 ORBINC = .945  
 RIDDER = .1550 ELEMON = .145  
 RUDER = .1550

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -9.435	$\frac{1}{L} \frac{dC_p}{dL}$	$\frac{1}{L} \frac{dC_p}{dL}$	PHI
		.255	.405	.055
		135.155	.5825	
		205.155	.5225	-.1195
		225.155	.5985	
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -9.315	$\frac{1}{L} \frac{dC_p}{dL}$	$\frac{1}{L} \frac{dC_p}{dL}$	PHI
		.255	.405	.055
		135.155	.5995	
		195.155	.5855	.2585
		225.155	.5955	
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -9.195	$\frac{1}{L} \frac{dC_p}{dL}$	$\frac{1}{L} \frac{dC_p}{dL}$	PHI
		.255	.405	.055
		135.155	.5985	
		195.155	.5255	.3575
		225.155	-.5195	
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.585	$\frac{1}{L} \frac{dC_p}{dL}$	$\frac{1}{L} \frac{dC_p}{dL}$	PHI
		.255	.405	.055
		135.155	.2595	
		205.155	.1795	.3395
		225.155	-.5695	
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.175	$\frac{1}{L} \frac{dC_p}{dL}$	$\frac{1}{L} \frac{dC_p}{dL}$	PHI
		.255	.405	.055
		135.155	.3395	
		205.155	.5955	.2295
		225.155	-.5795	
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.295	$\frac{1}{L} \frac{dC_p}{dL}$	$\frac{1}{L} \frac{dC_p}{dL}$	PHI
		.255	.405	.055
		135.155	.5955	
		205.155	.2555	-.5125
		225.155	-.5895	
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 9.415	$\frac{1}{L} \frac{dC_p}{dL}$	$\frac{1}{L} \frac{dC_p}{dL}$	PHI
		.255	.405	.055
		135.155	-.5275	
		195.155	.1775	-.5815
		225.155	-.5195	



AMES 07-707 IA9 ORA + S3 + T9 OMS NOZZLE

(RENEUT)

SECTION ( 1 ) OMS NOZZLE	DEPENDENT VARIABLE CP
MACH ( 1 ) = 2.498 BETAT ( 0 ) = 0.540	X/LNM .250 .400 PHI
	135.500 .1090
	180.500 .0360 -.1120
	225.500 -.1540
MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.590	X/LNM .250 .400 PHI
	135.500 .0980
	180.500 .1390 .0790
	225.500 .0740
MACH ( 2 ) = 2.999 BETAT ( 2 ) = -0.420	X/LNM .250 .400 PHI
	135.500 .1030
	180.500 .0460 .0620
	225.500 .0770
MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.270	X/LNM .250 .400 PHI
	135.500 .1510
	180.500 .0590 .2410
	225.500 .0120
MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.110	X/LNM .250 .400 PHI
	135.500 .1090
	180.500 .1160 .2470
	225.500 -.0020
MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.210	X/LNM .250 .400 PHI
	135.500 .0560
	180.500 .1070 .1890
	225.500 -.0120
MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.370	X/LNM .250 .400 PHI
	135.500 .0660
	180.500 .1620 .0920
	225.500 -.0240
MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.530	X/LNM .250 .400 PHI
	135.500 .0360
	180.500 .0210 -.0440
	225.500 -.0990

AMES 87-707 IA9 O2A + S3 + T9 OMS NOZZLE

(RBNEU7)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 0 ) = 0.090

X/LNM	PHI	CP
.200	.480	.480
.135	.5740	.5740
.180	-.5070	-.5080
.225	-.1150	-.1150

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.730

X/LNM	PHI	CP
.200	.480	.480
.135	.1520	.1520
.180	.1225	.1260
.225	-.5220	-.5220

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -0.540

X/LNM	PHI	CP
.200	.480	.480
.135	.1160	.1160
.180	-.0730	-.1030
.225	.0150	.0150

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.340

X/LNM	PHI	CP
.200	.480	.480
.135	.0550	.0550
.180	.1270	.1270
.225	.0880	.0880

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140

X/LNM	PHI	CP
.200	.480	.480
.135	.0380	.0380
.180	.1620	.1620
.225	.1090	.1090

MACH ( 3 ) = 3.902 BETAT ( 5 ) = 2.290

X/LNM	PHI	CP
.200	.480	.480
.135	.1250	.1250
.180	.1650	.1370
.225	-.1170	-.1170

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.480

X/LNM	PHI	CP
.200	.480	.480
.135	.0920	.0920
.180	.1160	.1250
.225	-.1120	-.1120

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 0.080

X/LNM	PHI	CP
.200	.480	.480
.135	.1070	.1070
.180	.0820	-.1210
.225	-.1050	-.1050

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TABULATED PRESSURE DATA - 1A9C  
AMES 87-707 1A9 C2A + S3 + T9 OMS NOZZLE

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(RDNEU7)

SECTION ( 1 ) OMS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.942	BETAT ( 8 ) = 8.850	X/LMN	.200	.400
		PHI		
		135.000	-.0170	
		180.000	-.0660	-.1690
		225.000	-.0950	

AVES 87-7/7 IAS OEA + S3 + T9 OMS NOZZLE

(RBNEI.8) ( 15 MAY 73 )

## REFERENCE DATA

XREF = 2.4210 SQ. FT. XMRP = 28.5300 INCHES  
 YREF = 39.8490 INCHES YMRP = .0000 INCHES  
 ZREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

ALPHAT = 4.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

## PARAMETRIC DATA

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	X/LNM	PHI	Y/LNM	PHI	Z/LNM	PHI
		135.000	-.0250	.200	.400	180.000	-.0250
		180.000	.0760	.1670	.0670	225.000	-.0670
		225.000	.1130				
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	X/LNM	PHI	Y/LNM	PHI	Z/LNM	PHI
		135.000	.0740	.200	.400	180.000	.0740
		180.000	-.0230	.1670	.0790	225.000	.0790
		225.000	.0560				
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.190	X/LNM	PHI	Y/LNM	PHI	Z/LNM	PHI
		135.000	.0910	.200	.400	180.000	.0910
		180.000	.0740	.1670	.2720	225.000	.2720
		225.000	-.0130				
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	X/LNM	PHI	Y/LNM	PHI	Z/LNM	PHI
		135.000	.1700	.200	.400	180.000	.1700
		180.000	.1400	.1670	.2320	225.000	.2320
		225.000	-.0550				
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.170	X/LNM	PHI	Y/LNM	PHI	Z/LNM	PHI
		135.000	.1460	.200	.400	180.000	.1460
		180.000	.1740	.1670	.1150	225.000	.1150
		225.000	-.0890				
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.300	X/LNM	PHI	Y/LNM	PHI	Z/LNM	PHI
		135.000	.0750	.200	.400	180.000	.0750
		180.000	.1710	.1670	-.0150	225.000	-.0150
		225.000	-.0860				
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.420	X/LNM	PHI	Y/LNM	PHI	Z/LNM	PHI
		135.000	.0590	.200	.400	180.000	.0590
		180.000	.1410	.1670	-.0670	225.000	-.0670
		225.000	-.1390				

## AVES 87-717 1A9 ORA + S3 + T9 OMS NOZZLE

(RDNEUR)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 4.53U  
 X/LNM .21U .41U  
 PHI  
 135.111U .158U  
 181.111U -.118U  
 225.111U -.149U

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.59U  
 X/LNM .21U .41U  
 PHI  
 135.111U .136U  
 181.111U .111U  
 225.111U .126U

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.42U  
 X/LNM .21U .41U  
 PHI  
 135.111U .127U  
 181.111U .136U  
 225.111U .113U

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.28U  
 X/LNM .21U .41U  
 PHI  
 135.111U .112U  
 181.111U .127U  
 225.111U .124U

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.15U  
 X/LNM .21U .41U  
 PHI  
 135.111U .193U  
 181.111U .194U  
 225.111U -.134U

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.21U  
 X/LNM .21U .41U  
 PHI  
 135.111U .139U  
 181.111U .187U  
 225.111U -.129U

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.37U  
 X/LNM .21U .41U  
 PHI  
 135.111U .141U  
 181.111U .132U  
 225.111U -.142U

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.54U  
 X/LNM .21U .41U  
 PHI  
 135.111U .136U  
 181.111U .142U  
 225.111U -.172U

AMES 87-757 1A9 OZA + S3 + T9 OMS NOZZLE

(RBWE1.8)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.710	X/LNM	PHI
		.200	.400
		.0560	
		-.0340	-.1130
		-.1050	
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.720	X/LNM	PHI
		.200	.400
		.0370	
		.0740	
		-.0630	
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.530	X/LNM	PHI
		.200	.400
		.0210	
		.0470	-.0070
		-.0480	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.330	X/LNM	PHI
		.200	.400
		.0590	
		.0220	-.0050
		-.0420	
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.140	X/LNM	PHI
		.200	.400
		.0210	
		.0570	.1190
		-.0210	
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	X/LNM	PHI
		.200	.400
		.0110	
		.0410	.1040
		-.0180	
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.460	X/LNM	PHI
		.200	.400
		.0280	
		.0910	.1000
		-.0270	
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.660	X/LNM	PHI
		.200	.400
		.0130	
		.0820	-.0100
		-.0630	

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AMES 87-757 I49 O2A - S3 + T9 OMS NOZZLE

(RBNE118)

SECTION ( 3 ) OMS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 8 ) = 8.860

X/LNW .212 .414

PHI

135.0000 -0.380

180.0000 -0.5870 -0.1960

225.0000 -0.5980

AMES 87-707 IAS OBA + S3 + T9 OMS NOZZLE

(IRNELS) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4215 50. FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = 6.1440 ORBINC = .5040  
 RUDDER = .1440 ELEVON = .1440  
 RUFLR = .1440

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -0.410	X/LNM	.200	.400
		PHI		
		135.000	-.0690	
		180.000	-.0920	-.1340
		225.000	-.1430	
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.290	X/LNM	.200	.400
		PHI		
		135.000	.0260	
		180.000	-.0290	-.0370
		225.000	.0190	
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.170	X/LNM	.200	.400
		PHI		
		135.000	.0530	
		180.000	.0160	.2420
		225.000	-.0230	
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.060	X/LNM	.200	.400
		PHI		
		135.000	.0960	
		180.000	.1420	.1740
		225.000	-.0660	
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	X/LNM	.200	.400
		PHI		
		135.000	.1610	
		180.000	.1510	.1370
		225.000	-.0910	
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.300	X/LNM	.200	.400
		PHI		
		135.000	.0980	
		180.000	.1510	.0190
		225.000	-.0920	
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.440	X/LNM	.200	.400
		PHI		
		135.000	.1470	
		180.000	.1210	-.0680
		225.000	-.1420	



AMES 87-707 IA9 O2A + S3 + T9 OMS NOZZLE

(RBHEL9)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.570

X/LNM	.200	.400
PHI		
135.000	.1230	
180.000	-.0210	-.1570
225.000	-.1500	

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.560

X/LNM	.200	.400
PHI		
135.000	-.0070	
180.000	.0460	.0320
225.000	-.0530	

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.400

X/LNM	.200	.400
PHI		
135.000	-.0230	
180.000	.0280	-.0150
225.000	-.0630	

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.250

X/LNM	.200	.400
PHI		
135.000	-.0280	
180.000	.0030	-.0070
225.000	-.0110	

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.100

X/LNM	.200	.400
PHI		
135.000	.0750	
180.000	.1020	.1440
225.000	-.0410	

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.210

X/LNM	.200	.400
PHI		
135.000	.0560	
180.000	.0740	.0580
225.000	-.0590	

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.300

X/LNM	.200	.400
PHI		
135.000	-.0030	
180.000	.1120	.0620
225.000	-.0490	

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.550

X/LNM	.200	.400
PHI		
135.000	-.0280	
180.000	.1630	-.0670
225.000	-.0580	

AMES 87-737 IAG OEA + S3 + T9 OMS NOZZLE

(RBNEU9)

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.720	X/LNM	.200	.400
		PHI		
		135.000	-.0010	
		180.000	-.0410	-.0940
		225.000	-.1130	
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.710	X/LNM	.200	.400
		PHI		
		135.000	.0040	
		180.000	-.0190	.0190
		225.000	-.0870	
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.510	X/LNM	.200	.400
		PHI		
		135.000	-.0360	
		180.000	.0230	.0140
		225.000	-.1610	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.320	X/LNM	.200	.400
		PHI		
		135.000	-.0330	
		180.000	-.0210	-.1610
		225.000	-.0530	
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.130	X/LNM	.200	.400
		PHI		
		135.000	.0160	
		180.000	.0410	.0590
		225.000	-.0380	
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	X/LNM	.200	.400
		PHI		
		135.000	.0150	
		180.000	.0390	.0770
		225.000	-.0250	
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.470	X/LNM	.200	.400
		PHI		
		135.000	-.0140	
		180.000	-.0780	.0070
		225.000	-.0430	
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.670	X/LNM	.200	.400
		PHI		
		135.000	-.1420	
		180.000	.1670	-.0570
		225.000	-.1490	

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AXES 87-757 1A9 OZA + S3 + T9 OMS NOZZLE

(RBNEU9)

SECTION ( 1 ) OMS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.952 BETAT ( 8 ) = 8.880

X/LNM	.200	.400
PHI		
135.000	-.0440	
180.000	-.0940	-.1030
225.000	-.1030	

AVES 67-707 IAS OEA + S3 + T9 OMS NOZZLE

(RBNE10) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 26.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = 8.1000 ORBINC = .5000  
 RUDDER = .0000 ELEWON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.360	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	-.1040		
		180.000	-.1150		-.1500
		225.000	-.1000		
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.270	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	-.0910		
		180.000	-.0600		-.1250
		225.000	-.1000		
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.170	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.0030		
		180.000	-.0190		.0670
		225.000	-.0940		
MACH ( 2 ) = 2.498	BETAT ( 4 ) = -2.060	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.0990		
		180.000	.1630		.2000
		225.000	-.0870		
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.1880		
		180.000	.1990		.1900
		225.000	-.0880		
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.320	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.1070		
		180.000	.1330		.0830
		225.000	-.0920		
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.450	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.1170		
		180.000	.1470		-.0910
		225.000	-.1230		

AMES 87-737 IA9 OZA + S3 + T9 OMS NOZZLE

(RBNE10)

SECTION ( 3 ) OMS NOZZLE	DEPENDENT VARIABLE CP
MACH ( 1 ) = 2.498 BETAT ( 0 ) = 0.905	X/LNM .200 .400 PHI 135.000 .0360 180.000 -.0160 225.000 -.1420
MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.540	X/LNM .200 .400 PHI 135.000 -.0430 180.000 -.0130 225.000 -.1060
MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.390	X/LNM .200 .400 PHI 135.000 -.0690 180.000 -.0310 225.000 -.0540
MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.240	X/LNM .200 .400 PHI 135.000 -.0790 180.000 .0060 225.000 -.0490
MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.080	X/LNM .200 .400 PHI 135.000 .0260 180.000 .0640 225.000 -.0960
MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.220	X/LNM .200 .400 PHI 135.000 .1360 180.000 .0790 225.000 -.0660
MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.400	X/LNM .200 .400 PHI 135.000 .0140 180.000 .0990 225.000 -.0970
MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.570	X/LNM .200 .400 PHI 135.000 -.0480 180.000 .0190 225.000 -.0700

AMES 87-707 IA9 OSA + S3 + T9 OMS NOZZLE

(RBNEID)

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 8 ) = 6.740	X/LNM	.200	.400
		PHI		
		135.000	-.0730	
		180.000	-.0840	-.0970
		225.000	-.1090	
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -6.680	X/LNM	.200	.400
		PHI		
		135.000	.0170	
		180.000	-.0370	.0140
		225.000	-.0990	
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.900	X/LNM	.200	.400
		PHI		
		135.000	-.0190	
		180.000	-.0400	-.0090
		225.000	-.0940	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.310	X/LNM	.200	.400
		PHI		
		135.000	-.0330	
		180.000	.0090	-.0490
		225.000	-.0800	
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.130	X/LNM	.200	.400
		PHI		
		135.000	-.0260	
		180.000	.0410	.0040
		225.000	-.0490	
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	X/LNM	.200	.400
		PHI		
		135.000	.0430	
		180.000	.0390	.0420
		225.000	-.0960	
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.480	X/LNM	.200	.400
		PHI		
		135.000	-.0320	
		180.000	.0400	-.0410
		225.000	-.0470	
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.680	X/LNM	.200	.400
		PHI		
		135.000	-.0720	
		180.000	-.0200	-.0830
		225.000	-.0920	



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AMES 87-707 IA9 O2A + S3 + T9 OMS NOZZLE

(RBNE11)

SECTION ( 1 ) OMS NOZZLE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.522 BETAT ( 0 ) = 0.920

	X/LNM	CP	PHI
	.200	.410	
	135.000	-.0770	
	180.000	-.0740	
	225.000	-.1020	

AMES 07-767 IAS OEA + S3 + T9 OMS NOZZLE

(RBNE11) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 26.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .03000 SCALE

ALPHAT = -8.0000 ORBITAL = .9000  
 RUDDER = -15.0000 ELEVON = .0000  
 RUPTLR = .0000

## PARAMETRIC DATA

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.398

X/LNM	PHI	CP
.200	.400	.400
135.000	.4800	.3820
180.000	.3300	.3020
225.000	.1090	.1090

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.270

X/LNM	PHI	CP
.200	.400	.400
135.000	.4290	.4710
180.000	.4160	.4710
225.000	.0680	.0680

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.160

X/LNM	PHI	CP
.200	.400	.400
135.000	.4320	.5570
180.000	.4380	.5570
225.000	.0850	.0850

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .060

X/LNM	PHI	CP
.200	.400	.400
135.000	.3450	.5800
180.000	.3420	.5800
225.000	.0820	.0820

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.330

X/LNM	PHI	CP
.200	.400	.400
135.000	.2320	.3910
180.000	.3490	.3910
225.000	.1400	.1400

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.460

X/LNM	PHI	CP
.200	.400	.400
135.000	.1010	.2290
180.000	.3320	.2290
225.000	-.0310	-.0310

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.600

X/LNM	PHI	CP
.200	.400	.400
135.000	.0680	.1210
180.000	.2240	.1210
225.000	-.1970	-.1970



AMES 87-707 IAG OEA + S3 + T9 CMS NOZZLE

(RBNE11)

SECTION ( 1 )	NOZZLE	DEPENDENT VARIABLE	CP
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -0.560	X/LNM	.200 .400
		PHI	
		135.000	.3270
		180.000	.2410
		225.000	.1240
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.410	X/LNM	.200 .400
		PHI	
		135.000	.3290
		180.000	.2660
		225.000	.1240
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.260	X/LNM	.200 .400
		PHI	
		135.000	.2890
		180.000	.3000
		225.000	.1960
MACH ( 2 ) = 2.999	BETAT ( 4 ) = .090	X/LNM	.200 .400
		PHI	
		135.000	.2300
		180.000	.2990
		225.000	.1570
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.400	X/LNM	.200 .400
		PHI	
		135.000	.2180
		180.000	.2810
		225.000	.1790
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.580	X/LNM	.200 .400
		PHI	
		135.000	.1730
		180.000	.2400
		225.000	.1310
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 8.790	X/LNM	.200 .400
		PHI	
		135.000	.1400
		180.000	.1680
		225.000	-.1680
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.710	X/LNM	.200 .400
		PHI	
		135.000	.2420
		180.000	.2100
		225.000	.1090

AMES 87-707 IAG ORA + S3 + T9 OMS NOZZLE

(RBNE11)

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.512	BETAT ( 2 ) = -6.520	X/LNM	PHI	CP
				.400
		135.000	.2570	
		180.000	.1790	.2720
		225.000	.1120	
MACH ( 3 ) = 3.512	BETAT ( 3 ) = -4.390	X/LNM	PHI	CP
				.400
		135.000	.2780	
		180.000	.2070	.2640
		225.000	.1660	
MACH ( 3 ) = 3.512	BETAT ( 4 ) = .090	X/LNM	PHI	CP
				.400
		135.000	.1810	
		180.000	.2290	.2530
		225.000	.1470	
MACH ( 3 ) = 3.512	BETAT ( 5 ) = 4.470	X/LNM	PHI	CP
				.400
		135.000	.1470	
		180.000	.1910	.2770
		225.000	.1620	
MACH ( 3 ) = 3.512	BETAT ( 6 ) = 6.690	X/LNM	PHI	CP
				.400
		135.000	.0660	
		180.000	.1380	.2730
		225.000	-.1460	
MACH ( 3 ) = 3.512	BETAT ( 7 ) = 8.900	X/LNM	PHI	CP
				.400
		135.000	.0680	
		180.000	.1930	.2190
		225.000	-.0370	

DATE 10 SEP 73  
 TABULATED PRESSURE DATA - IA9C  
 AMES 07-707 IA9 ORA + S3 + T9 OMS NOZZLE  
 (RBNE12) ( 10 MAY 73 )

PARAMETRIC DATA

ALPHAT = -4.500  
 OEBINC = .500  
 RUDDER = -5.000  
 ELEVON = .500  
 RUDFLR = .000

REFERENCE DATA

SWEP = 2.4210 96.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0375 SCALE

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -2.420  

X/LNW	.200	.400
PHI		
135.000	.2520	
180.000	.1950	.3390
225.000	.0890	

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.300  

X/LNW	.200	.400
PHI		
135.000	.3630	
180.000	.2450	.3480
225.000	.0690	

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.100  

X/LNW	.200	.400
PHI		
135.000	.3430	
180.000	.3450	.4450
225.000	.0640	

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .580  

X/LNW	.200	.400
PHI		
135.000	.3040	
180.000	-.2080	-.4460
225.000	.0340	

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310  

X/LNW	.200	.400
PHI		
135.000	.0920	
180.000	.3020	.1630
225.000	-.0420	

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.430  

X/LNW	.200	.400
PHI		
135.000	.0270	
180.000	.2680	.0680
225.000	-.0620	

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.560  

X/LNW	.200	.400
PHI		
135.000	.0320	
180.000	.1580	.0460
225.000	-.0350	

(RBNE12)

DATE 18 SEP 73 TABULATED PRESSURE DATA - 1A9C  
 AMES 87-707 1A9 O2A + S3 + T9 OMS NOZZLE

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -6.591	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		.135.000	.2470	.135.000	.2470
		.180.000	.1720	.180.000	.1720
		.225.000	.0590	.225.000	.0590
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.430	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		.135.000	.2390	.135.000	.2390
		.180.000	.1550	.180.000	.1550
		.225.000	.0800	.225.000	.0800
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.270	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		.135.000	.2120	.135.000	.2120
		.180.000	.1930	.180.000	.1930
		.225.000	.0710	.225.000	.0710
MACH ( 2 ) = 2.999	BETAT ( 4 ) = .030	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		.135.000	.1710	.135.000	.1710
		.180.000	.2100	.180.000	.2100
		.225.000	.0310	.225.000	.0310
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.360	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		.135.000	.1540	.135.000	.1540
		.180.000	.2290	.180.000	.2290
		.225.000	.0480	.225.000	.0480
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.550	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		.135.000	.0560	.135.000	.0560
		.180.000	.2110	.180.000	.2110
		.225.000	-.0500	.225.000	-.0500
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.710	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		.135.000	.0400	.135.000	.0400
		.180.000	.1930	.180.000	.1930
		.225.000	-.1010	.225.000	-.1010
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.740	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		.135.000	.1910	.135.000	.1910
		.180.000	.1490	.180.000	.1490
		.225.000	.0630	.225.000	.0630

(RBNE12)

DATE 18 SEP 73      TABULATED PRESSURE DATA - IASC  
 AMES 87-707 IAS OBA + S3 + T9 OMS NOZZLE

SECTION ( 1 ) OMS NOZZLE      DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.340	X/LNM	PHI	CP
		135.000	.1990	.4000
		180.000	.1110	.2770
		225.000	.0600	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.350	X/LNM	PHI	CP
		135.000	.1630	.4000
		180.000	.1150	.1870
		225.000	.0670	
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .150	X/LNM	PHI	CP
		135.000	.1370	.4000
		180.000	.1700	.2230
		225.000	.0200	
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.460	X/LNM	PHI	CP
		135.000	.1340	.4000
		180.000	.1420	.2860
		225.000	.0140	
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.660	X/LNM	PHI	CP
		135.000	.0790	.4000
		180.000	.0980	.1940
		225.000	-.0390	
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.660	X/LNM	PHI	CP
		135.000	.0410	.4000
		180.000	.0480	.0360
		225.000	-.0770	

TABLATED PRESSURE DATA - IASC

DATE 18 SEP 73

(RBNE13) ( 10 MAY 73 )

AMES 87-757 IAG OEA + S3 + T9 OMS NOZZLE

REFERENCE DATA

SREF = 2.4210 50.FT. XORP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .5000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .5000 INCHES  
 SCALE = .0000 SCALE

PARAMETRIC DATA

ALPHAT = .1600 ORBINC = .5000  
 RUDDER = -15.1600 ELEVON = .1600  
 RUFLR = .1600

DEPENDENT VARIABLE CP

SECTION ( 1 ) OMS NOZZLE

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	X/LNM	PHI	CP
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	X/LNM	.200	.400
		PHI	.1390	
			.1790	
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	X/LNM	.200	.400
		PHI	.1730	
			.3080	
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .560	X/LNM	.200	.400
		PHI	.2720	
			.3730	
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.300	X/LNM	.200	.400
		PHI	.2740	
			.2690	
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.420	X/LNM	.200	.400
		PHI	.0340	
			.1460	
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.540	X/LNM	.200	.400
		PHI	-.0390	
			-.0580	
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 10.660	X/LNM	.200	.400
		PHI	.1620	
			-.1790	
MACH ( 1 ) = 2.498	BETAT ( 9 ) = 12.780	X/LNM	.200	.400
		PHI	.0910	
			-.1490	

DATE 18 SEP 73  
 TABULATED PRESSURE DATA - IASC  
 AMES 67-7J7 IAS ORA + S3 + T9 OPS NOZZLE

(RM-13)

SECTION ( 3 ) OPS NOZZLE		DEPENDENT VARIABLE CP	
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -0.580	X/L/NM PHI	.250 .400
		135.000	.1660
		180.000	.1380
		225.000	.0980
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -0.450	X/L/NM PHI	.250 .400
		135.000	.1680
		180.000	.1310
		225.000	.0990
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -0.280	X/L/NM PHI	.250 .400
		135.000	.1640
		180.000	.1280
		225.000	.0820
MACH ( 2 ) = 2.999	BETAT ( 4 ) = .080	X/L/NM PHI	.250 .400
		135.000	.1330
		180.000	.1340
		225.000	.1040
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.380	X/L/NM PHI	.250 .400
		135.000	.1080
		180.000	.1960
		225.000	.1690
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.940	X/L/NM PHI	.250 .400
		135.000	.0420
		180.000	.1780
		225.000	-.0760
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 8.680	X/L/NM PHI	.200 .400
		135.000	.0640
		180.000	.0100
		225.000	-.1170
MACH ( 3 ) = 3.508	BETAT ( 1 ) = -0.750	X/L/NM PHI	.200 .400
		135.000	.1640
		180.000	.1080
		225.000	.0450

DATE 10 SEP 73 TABULATED PRESSURE DATA - IASC  
 AMES 87-707 IAS OBA + S3 + T9 OMS NOZZLE (RDN13)

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.550	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		135.000	.1150	135.000	.1150
		180.000	.0950	180.000	.0950
		225.000	.0800	225.000	.0800
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.350	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		135.000	.0790	135.000	.0790
		180.000	.0400	180.000	.0400
		225.000	.0250	225.000	.0250
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .050	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		135.000	.0690	135.000	.0690
		180.000	.1250	180.000	.1250
		225.000	.0050	225.000	.0050
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.450	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		135.000	.1150	135.000	.1150
		180.000	.1340	180.000	.1340
		225.000	.0080	225.000	.0080
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.650	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		.400	.0760	.400	.0760
		.600	.0780	.600	.0780
		.800	-.0640	.800	-.0640
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.840	X/LNM	PHI	X/LNM	PHI
		.200	.400	.200	.400
		135.000	.0180	135.000	.0180
		180.000	-.0160	180.000	-.0160
		225.000	-.1650	225.000	-.1650



DATE 10 SEP 73 TABULATED PRESSURE DATA - IA9C  
AVES 87-707 IA9 O2A + S3 + T9 OMS NOZZLE

(RBNE14) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
LREF = 39.0490 INCHES YMRP = .0000 INCHES  
BREF = 39.0490 INCHES ZMRP = .0000 INCHES  
SCALE = .0010 SCALE

ALPHAT = 4.0000 ORBINC = .5000  
RUDDER = -15.0000 ELEVON = .0000  
RUFLY = .0000

PARAMETRIC DATA

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.410	X/LNM	.200	.400
		PHI		
		135.000	-.1020	
		180.000	.0140	-.0680
		225.000	.1220	
		X/LNM	.200	.400
		PHI		
		135.000	.0680	
		180.000	-.0190	.1010
		225.000	.1650	
		X/LNM	.200	.400
		PHI		
		135.000	.1020	
		180.000	.0790	.2870
		225.000	-.0620	
		X/LNM	.200	.400
		PHI		
		135.000	.1630	
		180.000	.1620	.2790
		225.000	-.1470	
		X/LNM	.200	.400
		PHI		
		135.000	.0730	
		180.000	.1660	-.0100
		225.000	-.0650	
		X/LNM	.200	.400
		PHI		
		135.000	.0560	
		180.000	.1460	-.0800
		225.000	-.1290	
		X/LNM	.200	.400
		PHI		
		135.000	.0580	
		180.000	.0040	-.1360
		225.000	-.1470	



(RBINE14)

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC  
 AMES 87-707 IAS OCA + S3 + T9 CMS NOZZLE

SECTION ( 1 ) CMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.560  
 X/LNM .200 .400  
 PHI  
 135.000 .0430  
 180.000 .1090  
 225.000 .0330

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -0.410  
 X/LNM .200 .400  
 PHI  
 135.000 .0400  
 180.000 .0540  
 225.000 .0170

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -0.250  
 X/LNM .200 .400  
 PHI  
 135.000 .0900  
 180.000 .0270  
 225.000 .0100

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .060  
 X/LNM .200 .400  
 PHI  
 135.000 .1130  
 180.000 .1250  
 225.000 -.0240

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.360  
 X/LNM .200 .400  
 PHI  
 135.000 .0350  
 180.000 .1360  
 225.000 -.0410

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.590  
 X/LNM .200 .400  
 PHI  
 135.000 .0380  
 180.000 .1530  
 225.000 -.0650

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.710  
 X/LNM .200 .400  
 PHI  
 135.000 .0320  
 180.000 -.0420  
 225.000 -.1010

MACH ( 3 ) = 3.508 BETAT ( 1 ) = -0.750  
 X/LNM .200 .400  
 PHI  
 135.000 .0430  
 180.000 .0740  
 225.000 -.0380

AMES 87-707 1A9 O2A + S3 + T9 OMS NOZZLE

(RBF .44)

## SECTION ( 1 ) OMS NOZZLE DEFENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.930	X/LNM	.200	.400
		PHI		
		135.000	.0200	
		180.000	.0450	-.0070
		225.000	-.0550	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.340	X/LNM	.200	.400
		PHI		
		135.000	.0580	
		180.000	.0230	-.0360
		225.000	-.0740	
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .090	X/LNM	.200	.400
		PHI		
		135.000	.0350	
		180.000	.0830	.1760
		225.000	-.1010	
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.450	X/LNM	.200	.400
		PHI		
		135.000	.0320	
		180.000	.1020	.1090
		225.000	-.0280	
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.060	X/LNM	.200	.400
		PHI		
		135.000	.0210	
		180.000	.0660	-.0250
		225.000	-.0570	
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.060	X/LNM	.200	.400
		PHI		
		135.000	-.0420	
		180.000	-.0630	-.0940
		225.000	-.0950	

AMES 87-707 1A9 02A + S3 + T9 OMS NOZZLE

(RBNE15) ( 15 MAY 75 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 20.5300 INCHES  
 LREF = 30.8490 INCHES YMRP = .5000 INCHES  
 SREF = 30.8490 INCHES ZMRP = .5000 INCHES  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHAT = 6.5550 ORBINC = .9550  
 RUDDER = -15.5550 ELEVON = .5550  
 RUDFLR = .5550

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -0.380	X/LNM	PHI	CP
		135.500	-.0970	.400
		180.000	-.0610	-.1270
		225.000	.0190	
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -0.280	X/LNM	PHI	CP
		135.500	.0230	.400
		180.000	-.0280	-.0270
		225.000	.0310	
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -0.180	X/LNM	PHI	CP
		135.500	.0990	.400
		180.000	.0220	.2570
		225.000	-.0160	
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .080	X/LNM	PHI	CP
		135.500	.1330	.400
		180.000	.1110	.2720
		225.000	-.0460	
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.310	X/LNM	PHI	CP
		135.500	.0960	.400
		180.000	.1320	.0180
		225.000	-.0690	
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.440	X/LNM	PHI	CP
		135.500	.1400	.400
		180.000	.1240	-.0690
		225.000	-.1360	
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.570	X/LNM	PHI	CP
		135.500	.1360	.400
		180.000	-.0160	-.1470
		225.000	-.1420	

(RDNE15)

DATE 18 SEP 73  
 TABULATED PRESSURE DATA - IASC  
 AVES 87-707 1A9 O2A + S3 + T9 OMS NOZZLE

SECTION ( 1 ) OMS NOZZLE	DEPENDENT VARIABLE CP		
MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.550	X/LNM	.200	.400
	PHI	.0130	.0300
	135.000	.0560	.0900
	180.000	-.0440	
	225.000		
MACH ( 2 ) = 2.999 BETAT ( 2 ) = -0.400	X/LNM	.200	.400
	PHI	-.0150	
	135.000	.0330	-.0140
	180.000	-.0510	
	225.000		
MACH ( 2 ) = 2.999 BETAT ( 3 ) = -0.240	X/LNM	.200	.400
	PHI	-.0280	
	135.000	.0060	.0010
	180.000	-.0100	
	225.000		
MACH ( 2 ) = 2.999 BETAT ( 4 ) = .000	X/LNM	.200	.400
	PHI	.0790	
	135.000	.1110	.1690
	180.000	-.0420	
	225.000		
MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.390	X/LNM	.200	.400
	PHI	-.0090	
	135.000	.0290	.0640
	180.000	-.0450	
	225.000		
MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.970	X/LNM	.200	.400
	PHI	-.0270	
	135.000	.1700	-.0660
	180.000	-.0500	
	225.000		
MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.790	X/LNM	.200	.400
	PHI	.0060	
	135.000	-.0460	-.0690
	180.000	-.1110	
	225.000		
MACH ( 3 ) = 3.502 BETAT ( 1 ) = -0.710	X/LNM	.200	.400
	PHI	.0130	
	135.000	-.0160	.0280
	180.000	-.0610	
	225.000		

AMES 87-757 IAS O2A + S3 + T9 OMS NOZZLE

(RDNE15)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.520	X/LNM	.200	.400
		PHI		
		135.000	-.0330	
		180.000	.0260	.0190
		225.000	-.0780	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.330	X/LNM	.200	.400
		PHI		
		135.000	-.0300	
		180.000	-.1200	-.0600
		225.000	-.1520	
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .050	X/LNM	.200	.400
		PHI		
		135.000	.0360	
		180.000	.0560	.1190
		225.000	-.0190	
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.400	X/LNM	.200	.400
		PHI		
		135.000	-.0120	
		180.000	.0820	.0100
		225.000	-.0380	
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.660	X/LNM	.200	.400
		PHI		
		135.000	.0060	
		180.000	.0760	-.0470
		225.000	-.0450	
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.680	X/LNM	.200	.400
		PHI		
		135.000	-.0440	
		180.000	-.0630	-.0960
		225.000	-.0970	

TABLATED PRESSURE DATA - 1ASC

AMES 87-707 IAS OEA + S3 + T9 OMS NOZZLE

(RBNE16) ( 15 MAY 73 )

PARAMETRIC DATA

ALPHAT = 8.5523 ORBINC = .5000  
 RUDDER = -15.1660 ELEVON = .5660  
 RUOFLR = .0000

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .03000 SCALE

SECTION ( 1 ): OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.370	X/LNM	PHI	CP
		.200	.400	.400
		135.000	-.0950	
		180.000	-.1100	-.1460
		225.000	-.0950	
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.270	X/LNM	PHI	CP
		.200	.400	.400
		135.000	-.1200	
		180.000	-.0710	-.1220
		225.000	-.0400	
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.160	X/LNM	PHI	CP
		.200	.400	.400
		135.000	.0110	
		180.000	-.0160	.0600
		225.000	-.0240	
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .060	X/LNM	PHI	CP
		.200	.400	.400
		135.000	.0960	
		180.000	.0840	.2160
		225.000	-.0510	
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.330	X/LNM	PHI	CP
		.200	.400	.400
		135.000	.1120	
		180.000	.1360	.0960
		225.000	-.0860	
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.460	X/LNM	PHI	CP
		.200	.400	.400
		135.000	.1220	
		180.000	.1540	-.0320
		225.000	-.1170	
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.600	X/LNM	PHI	CP
		.200	.400	.400
		135.000	.0400	
		180.000	-.0160	-.1360
		225.000	-.1340	

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC  
 AMES 87-707 IAS OEA + S3 + T9 OMS NOZZLE

(RBNE16)

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.530  
 X/LNM .200 .400  
 PHI  
 135.000 -.1400  
 180.000 -.1050  
 225.000 -.1000

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.360  
 X/LNM .200 .400  
 PHI  
 135.000 -.0660  
 180.000 -.1270  
 225.000 -.1480

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.230  
 X/LNM .200 .400  
 PHI  
 135.000 -.1680  
 180.000 .0180  
 225.000 -.1420

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .080  
 X/LNM .200 .400  
 PHI  
 135.000 .1600  
 180.000 .0750  
 225.000 -.1990

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.400  
 X/LNM .200 .400  
 PHI  
 135.000 .0190  
 180.000 .1010  
 225.000 -.0010

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.580  
 X/LNM .200 .400  
 PHI  
 135.000 -.0540  
 180.000 .1210  
 225.000 -.1040

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.750  
 X/LNM .200 .400  
 PHI  
 135.000 -.1650  
 180.000 -.1750  
 225.000 -.1070

MACH ( 3 ) = 3.302 BETAT ( 1 ) = -8.680  
 X/LNM .200 .400  
 PHI  
 135.000 .0190  
 180.000 -.0340  
 225.000 -.1020



DATE 18 SEP 73      TABULATED PRESSURE DATA - IA9C      (RBNE16)

AMES 87-707 IA9 CEA + S3 + T9 OMS NOZZLE

SECTION ( 1 ) OMS NOZZLE      DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.512    BETAT ( 2 ) = -6.500

X/LNM	.200	.400
PHI		
135.000	-.0170	
180.000	-.0410	-.0040
225.000	-.0960	

MACH ( 3 ) = 3.502    BETAT ( 3 ) = -4.320

X/LNM	.200	.400
PHI		
135.000	-.0510	
180.000	.0090	-.0470
225.000	-.0780	

MACH ( 3 ) = 3.512    BETAT ( 4 ) = .050

X/LNM	.200	.400
PHI		
135.000	.0260	
180.000	.0460	.1190
225.000	-.0220	

MACH ( 3 ) = 3.502    BETAT ( 5 ) = 4.470

X/LNM	.200	.400
PHI		
135.000	-.0370	
180.000	.0370	-.0430
225.000	-.0450	

MACH ( 3 ) = 3.502    BETAT ( 6 ) = 6.680

X/LNM	.200	.400
PHI		
135.000	-.0700	
180.000	-.0190	-.0630
225.000	-.0510	

MACH ( 2 ) = 3.502    BETAT ( 7 ) = 8.900

X/LNM	.200	.400
PHI		
135.000	-.0730	
180.000	-.0740	-.0710
225.000	-.1010	



AVES 07-707 1A9 OEA + S3 + T9 OMS NOZZLE

(RBNE17) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0310 SCALE

## PARAMETRIC DATA

ALPHAT = -8.0000 ORBINC = .5000  
 RUDDER = -10.0000 ELEVON = .0000  
 RUOFLR = .0000

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.390	X/LNM	PHI	CP
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.280	X/LNM	.200	.400
		PHI	.4450	.3680
			.3160	.3680
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.160	X/LNM	.200	.400
		PHI	.4260	.4520
			.3980	.1910
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .060	X/LNM	.200	.400
		PHI	.4190	.5370
			.4350	.1640
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.330	X/LNM	.200	.400
		PHI	.3370	.5790
			.3400	.1790
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.470	X/LNM	.200	.400
		PHI	.1930	.3680
			.3490	.0380
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.610	X/LNM	.200	.400
		PHI	.1010	.2260
			.3290	-.0380
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.610	X/LNM	.200	.400
		PHI	.0640	.1120
			.2210	-.1000

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASFC

(RBNE17)

AMES 87-707 IAS OCA + S3 + T9 OMS NOZZLE

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -6.940	X/LNM	PHI	Y/LNM	CP
		135.1660	.2260	.2930	.4000
		180.1660	.2240	.3080	.3280
		225.1660	.2260	.3400	.3000
				.1100	
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.240	X/LNM	PHI	Y/LNM	CP
		135.1660	.2930	.2930	.4000
		180.1660	.3080	.3400	.3000
		225.1660	.1100		
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	X/LNM	PHI	Y/LNM	CP
		135.1660	.2930	.2930	.4000
		180.1660	.3080	.3400	.3000
		225.1660	.1100		
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.410	X/LNM	PHI	Y/LNM	CP
		135.1660	.2930	.2930	.4000
		180.1660	.3080	.3400	.3000
		225.1660	.1100		
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 6.760	X/LNM	PHI	Y/LNM	CP
		135.1660	.2930	.2930	.4000
		180.1660	.3080	.3400	.3000
		225.1660	.1100		
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -6.750	X/LNM	PHI	Y/LNM	CP
		135.1660	.2390	.2390	.4000
		180.1660	.1980	.3040	.3040
		225.1660	.1860		
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.510	X/LNM	PHI	Y/LNM	CP
		135.1660	.2660	.2660	.4000
		180.1660	.1770	.2710	.2710
		225.1660	.1160		
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.320	X/LNM	PHI	Y/LNM	CP
		135.1660	.2760	.2760	.4000
		180.1660	.2180	.2660	.2660
		225.1660	.1980		

AMES 87-707 1A9 ORA + S3 + T9 OMS NOZZLE

(RBNE17)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 4 ) = .560	X/LNM	.200	.400
		PHI		
		135.000	.1880	
		180.000	.2360	.2610
		225.000	.5560	
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.490	X/LNM	.200	.400
		PHI		
		135.000	.1560	
		180.000	.1940	.2940
		225.000	.5690	
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.700	X/LNM	.200	.400
		PHI		
		135.000	.5670	
		180.000	.1920	.2760
		225.000	.5680	
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.910	X/LNM	.200	.400
		PHI		
		135.000	.5770	
		180.000	.1580	.2230
		225.000	-.5690	

AXES 87-707 1A9 ORA + S3 + T9 ONS NOZZLE

(RBNE16) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 26.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = -4.0000 ORBINC = .5000  
 RUDDER = -30.0000 ELEVON = .0000  
 RUDFLR = .0000

SECTION ( 1 ) ONS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -0.420	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.2510		
		180.000	.1870		.3450
		225.000	.0820		
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -0.300	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.3540		
		180.000	.2300		.3540
		225.000	.0700		
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -0.180	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.3340		
		180.000	.3370		.4340
		225.000	.1610		
MACH ( 1 ) = 2.499	BETAT ( 4 ) = 0.060	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.3060		
		180.000	.2920		.4430
		225.000	.0300		
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.310	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.0940		
		180.000	.3000		.1510
		225.000	-.0000		
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.430	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.0690		
		180.000	.2640		.0970
		225.000	-.0700		
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.560	X/LNM	PHI	Y/LNM	Z/LNM
		.200	.400		
		135.000	.0310		
		180.000	.1260		.0110
		225.000	-.1370		

AMES 67-707 IAS OZA + S9 + T9 OMS NOZZLE (RBNE18)

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.580	X/LNM	.200	.400
		PHI		
		135.000	.2460	
		180.000	.1740	.3690
		225.000	.0630	
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.260	X/LNM	.200	.400
		PHI		
		135.000	.2200	
		180.000	.2000	.2560
		225.000	.0750	
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	X/LNM	.200	.400
		PHI		
		135.000	.1710	
		180.000	.2100	.3310
		225.000	.0320	
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.390	X/LNM	.200	.400
		PHI		
		135.000	.1520	
		180.000	.2290	.2740
		225.000	.0490	
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 8.720	X/LNM	.200	.400
		PHI		
		135.000	.0350	
		180.000	.0930	.0290
		225.000	-.0980	
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.730	X/LNM	.200	.400
		PHI		
		135.000	.1680	
		180.000	.1460	.3660
		225.000	.0610	
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.530	X/LNM	.200	.400
		PHI		
		135.000	.1940	
		180.000	.1110	.2610
		225.000	.0630	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.330	X/LNM	.200	.400
		PHI		
		135.000	.1660	
		180.000	.1230	.1930
		225.000	.0740	

DATE 18 SEP 73

TABULATED PRESSURE DATA - 1A9C

(8BME18)

AXES 07-717 1A9 C2A + S3 + T9 OMS NOZZLE

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.312 BETAT ( 4 ) = .1460

X/LNM	PHI	CP
.250	.410	.1350
.180	.1670	.2250
.225	.1620	

MACH ( 3 ) = 3.312 BETAT ( 5 ) = 4.470

X/LNM	PHI	CP
.250	.410	.1350
.180	.1310	.2970
.225	.1680	

MACH ( 3 ) = 3.312 BETAT ( 6 ) = 6.670

X/LNM	PHI	CP
.250	.410	.1350
.180	.1680	.1980
.225	-.1690	

MACH ( 3 ) = 3.312 BETAT ( 7 ) = 8.870

X/LNM	PHI	CP
.250	.410	.1350
.180	.1590	.1940
.225	-.1680	

VES 87-737 IA9 OEA + S3 + T9 OMS NOZZLE

(RBME19) ( 10 MAY 73 )

## REFERENCE DATA

SWEP = 2.4210 50. FT.    XWRP = 28.5300 INCHES  
 WOLF = 23.0000 INCHES    WWRP = 16.00 INCHES  
 SWEP = 39.8490 INCHES    ZWRP = 16.000 INCHES  
 SCALE = .03000 SCALE

## PARAMETRIC DATA

ALPHAT = .000    ORBTNC = .500  
 RUDDER = -10.000    FLOWN = .190  
 RUDFLR = .000

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -6.430	X/LNM	PHI	CP
		135.000	.1450	.000
		180.000	.0850	.1720
		225.000	.0710	
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.310	X/LNM	PHI	CP
		135.000	.1700	.000
		180.000	.1170	.3070
		225.000	.0850	
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.180	X/LNM	PHI	CP
		135.000	.2720	.000
		180.000	.1900	.3600
		225.000	.0230	
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .560	X/LNM	PHI	CP
		135.000	.2700	.000
		180.000	.2690	.2090
		225.000	-.0270	
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.300	X/LNM	PHI	CP
		135.000	.0430	.000
		180.000	.2400	.0220
		225.000	-.0540	
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.430	X/LNM	PHI	CP
		135.000	-.0390	.000
		180.000	.1890	-.0480
		225.000	-.1160	
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.550	X/LNM	PHI	CP
		135.000	-.0440	.000
		180.000	.0770	-.0720
		225.000	-.1460	



AMES 87-717 IA9 OEA + S3 + T9 OMS NOZZLE

(RDNE19)

## SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -0.500	X/LNM	.200	.414
		PHI		
		135.000	-.1620	
		180.000	.1380	.0940
		225.000	.1890	
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.260	X/LNM	.200	.400
		PHI		
		135.000	.1660	
		180.000	.1100	.2590
		225.000	.0390	
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .160	X/LNM	.200	.400
		PHI		
		135.000	.1390	
		180.000	.1590	.2680
		225.000	.1470	
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.380	X/LNM	.200	.400
		PHI		
		135.000	.1010	
		180.000	.1990	.0640
		225.000	.1090	
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 0.710	X/LNM	.200	.400
		PHI		
		135.000	.0490	
		180.000	.0010	-.0890
		225.000	-.1190	
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -0.740	X/LNM	.200	.400
		PHI		
		135.000	.1990	
		180.000	.0980	.2280
		225.000	.0970	
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.940	X/LNM	.200	.400
		PHI		
		135.000	.1190	
		180.000	.0910	.0680
		225.000	.1800	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.340	X/LNM	.200	.400
		PHI		
		135.000	.0890	
		180.000	.0480	.1870
		225.000	.0340	

TABULATED PRESSURE DATA - IASC

(RBNE19)

AVES 87-7:7 IAS OEA + S3 + T9 OWS NOZZLE

SECTION ( 1 ) OWS NOZZLE  
DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.512 BETAT ( 4 ) = .148J  
X/LNM .21J .41J  
PHI  
135.14J .194J  
185.14J .116J .217J  
225.14J .142J

MACH ( 3 ) = 3.512 BETAT ( 5 ) = 4.48J  
X/LNM .21J .41J  
PHI  
135.14J .124J  
185.14J .127J .215J  
225.14J .111J

MACH ( 3 ) = 3.512 BETAT ( 6 ) = 6.66J  
X/LNM .21J .41J  
PHI  
135.14J .109J  
185.14J .108J .108J  
225.14J -.163J

MACH ( 3 ) = 3.512 BETAT ( 7 ) = 6.66J  
X/LNM .21J .41J  
PHI  
135.14J .107J  
185.14J -.117J -.168J  
225.14J -.102J

DATE 18 SEP 73 TABULATED PRESSURE DATA - 1A9C

AVES 87-717 1A9 ORA + S3 + T9 OMS NOZZLE

(RBNE26) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5310 INCHES  
 LREF = 39.8495 INCHES YMRP = .0000 INCHES  
 BREF = 39.8495 INCHES ZMRP = .0000 INCHES  
 SCALE = .0375 SCALE

PARAMETRIC DATA

ALPHAT = 4.5000 ORBINC = .5000  
 RUDSER = -10.0000 ELEVON = .0000  
 RUCFLR = .0000

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -0.410	X/LNM	PHI
		.200	.410
		135.000	-.0210
		180.000	.0060
		225.000	-.0600
		.1200	
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -0.290	X/LNM	PHI
		.200	.410
		135.000	.1010
		180.000	-.0150
		225.000	.0570
		.1200	
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.170	X/LNM	PHI
		.200	.400
		135.000	.1680
		180.000	.1630
		225.000	-.0100
		.1200	
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .060	X/LNM	PHI
		.200	.400
		135.000	.1680
		180.000	.1630
		225.000	-.0100
		.1200	
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.310	X/LNM	PHI
		.200	.400
		135.000	.0820
		180.000	.1730
		225.000	-.1060
		.1200	
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.430	X/LNM	PHI
		.200	.400
		135.000	.0510
		180.000	.1430
		225.000	-.0830
		.1200	
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 0.560	X/LNM	PHI
		.200	.400
		135.000	.0730
		180.000	.0120
		225.000	-.1360
		.1200	

AMES 87-707 IAS O2A + S3 + T9 OMS NOZZLE

(RBNEZD)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.570	X/LNM	.250	.410
		PHI		
		135.000	.0400	
		180.000	.1090	.0620
		225.000	.0290	
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.250	X/LNM	.250	.410
		PHI		
		135.000	.0950	
		180.000	.0270	.1300
		225.000	.0100	
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	X/LNM	.250	.410
		PHI		
		135.000	.1130	
		180.000	.1260	.1860
		225.000	-.0190	
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.390	X/LNM	.250	.410
		PHI		
		135.000	.0420	
		180.000	.1370	.1110
		225.000	-.0420	
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 8.720	X/LNM	.250	.410
		PHI		
		135.000	.0380	
		180.000	-.0470	-.1110
		225.000	-.0300	
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.720	X/LNM	.250	.410
		PHI		
		135.000	.0490	
		180.000	.0810	.0870
		225.000	-.0550	
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.530	X/LNM	.250	.410
		PHI		
		135.000	.0290	
		180.000	.0700	.0120
		225.000	-.0480	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.330	X/LNM	.250	.410
		PHI		
		135.000	.0660	
		180.000	.0290	-.0370
		225.000	.0100	

DATE 18 SEP 73 TABULATED PRESSURE DATA - IA9C

(9BNE2U)

AMES 87-707 IA9 ORA + S3 + T9 CMS NOZZLE

## SECTION : 1) CMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.912	BETAT ( 4 ) = .06U	X/LNM PHI	X/LNM PHI	X/LNM PHI
		.21U	.21U	.41U
		135.16U	.146U	
		180.16U	.589U	.179U
		225.16U	.122U	
MACH ( 3 ) = 3.912	BETAT ( 5 ) = 4.46U	X/LNM PHI	X/LNM PHI	X/LNM PHI
		.21U	.21U	.41U
		135.16U	.125U	
		180.16U	.09U	.189U
		225.16U	-.030U	
MACH ( 3 ) = 3.912	BETAT ( 6 ) = 6.67U	X/LNM PHI	X/LNM PHI	X/LNM PHI
		.21U	.21U	.41U
		135.16U	.073U	
		180.16U	.586U	-.038U
		225.16U	-.059U	
MACH ( 3 ) = 3.912	BETAT ( 7 ) = 8.87U	X/LNM PHI	X/LNM PHI	X/LNM PHI
		.21U	.21U	.41U
		135.16U	-.052U	
		180.16U	-.079U	-.186U
		225.16U	-.189U	

AMES 87-757 IA9 O2A + S3 + T9 OMS NOZZLE

(RBNE21) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = 6.0000 ORBINC = .5000  
 RUDDER = -10.0000 ELEVON = .0000  
 RUOFLR = .0000

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499 BETAT ( 1 ) = -6.390 X/LNM .200 .400  
 PHI  
 135.000 -.0610  
 180.000 -.0790 -.1280  
 225.000 .0130

MACH ( 1 ) = 2.499 BETAT ( 2 ) = -6.280 X/LNM .200 .400  
 PHI  
 135.000 .0210  
 180.000 -.0270 -.0170  
 225.000 .0290

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.170 X/LNM .200 .400  
 PHI  
 135.000 .0550  
 180.000 .0210 .2660  
 225.000 -.0200

MACH ( 1 ) = 2.499 BETAT ( 4 ) = .060 X/LNM .200 .400  
 PHI  
 135.000 .1280  
 180.000 .0160 .2650  
 225.000 -.0530

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.310 X/LNM .200 .400  
 PHI  
 135.000 .0040  
 180.000 .0120 .0160  
 225.000 -.0910

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.440 X/LNM .200 .400  
 PHI  
 135.000 .1220  
 180.000 .0180 -.0620  
 225.000 -.1370

MACH ( 1 ) = 2.499 BETAT ( 7 ) = 8.570 X/LNM .200 .400  
 PHI  
 135.000 .1450  
 180.000 -.0400 -.1430  
 225.000 -.1420

AKES 87-707 IA9 O2A + S3 + T9 OMS NOZZLE

(RBNEZ1)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.550	X/LNM	.200	.400
		FHI		
		135.000	-.0220	
		180.000	.0470	.0340
		225.000	-.0490	
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.240	X/LNM	.200	.400
		FHI		
		135.000	-.0300	
		180.000	.0030	.0400
		225.000	-.0290	
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	X/LNM	.200	.400
		FHI		
		135.000	.0690	
		180.000	.0290	.0920
		225.000	-.0490	
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.400	X/LNM	.200	.400
		FHI		
		135.000	-.0090	
		180.000	.0180	.0740
		225.000	-.0450	
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 8.730	X/LNM	.200	.400
		FHI		
		135.000	-.0030	
		180.000	-.0250	-.0930
		225.000	-.0150	
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.710	X/LNM	.200	.400
		FHI		
		135.000	.0200	
		180.000	-.0290	.0340
		225.000	-.0770	
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.510	X/LNM	.200	.400
		FHI		
		135.000	-.0240	
		180.000	.0290	.0250
		225.000	-.0720	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.320	X/LNM	.200	.400
		FHI		
		135.000	-.0270	
		180.000	-.0150	-.0510
		225.000	-.0490	

AVES 07-707 IAS ORA + S3 + T9 OMS NOZZLE

(RBNEZ1)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .060

X/LNM	.250	.400
PHI		
135.000	.0490	
180.000	.0640	.1180
225.000	-.0140	

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.470

X/LNM	.200	.400
PHI		
135.000	-.0160	
180.000	.0800	.1430
225.000	-.0390	

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 6.670

X/LNM	.250	.400
PHI		
135.000	.0250	
180.000	.0790	-.0430
225.000	-.0420	

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 8.890

X/LNM	.200	.400
PHI		
135.000	-.0570	
180.000	-.0860	-.0880
225.000	-.0880	



ANES 87-707 IAS OBA + S3 + T9 OMS NOZZLE

(RBNEZZ) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

ALPHAT = 8.0000 ORBINC = .5000  
 RUDDER = -10.0000 ELEVON = .0000  
 RUDFLR = .0000

PARAMETRIC DATA

SECTION ( 1 ) OMS NOZZLE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.370	X/LNM	PHI	CP
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.260	X/LNM	.200	.400
		PHI		
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.190	X/LNM	.200	.400
		PHI		
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .060	X/LNM	.200	.400
		PHI		
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.330	X/LNM	.200	.400
		PHI		
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.460	X/LNM	.200	.400
		PHI		
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.600	X/LNM	.200	.400
		PHI		

AMES 87-707 1A9 OZA + S3 + T9 OMS NOZZLE

(RBNEZ2)

## SECTION ( 1 ) OMS NOZZLE

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.530

X/LNM	.200	.400
PHI		
135.000	-.0410	
180.000	-.0360	-.0090
225.000	-.0300	

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.230

X/LNM	.200	.400
PHI		
135.000	-.0770	
180.000	.0170	-.0410
225.000	-.0380	

MACH ( 2 ) = 2.999 BETAT ( 3 ) = .060

X/LNM	.200	.400
PHI		
135.000	.0550	
180.000	.0750	.2010
225.000	-.0320	

MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.400

X/LNM	.200	.400
PHI		
135.000	.0120	
180.000	-.0950	-.0650
225.000	-.0550	

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 6.750

X/LNM	.200	.400
PHI		
135.000	-.0710	
180.000	-.0820	-.0900
225.000	-.0690	

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.680

X/LNM	.200	.400
PHI		
135.000	.0220	
180.000	-.0300	.0220
225.000	-.0910	

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.450

X/LNM	.200	.400
PHI		
135.000	-.0140	
180.000	-.0360	-.0600
225.000	-.0910	

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.310

X/LNM	.200	.400
PHI		
135.000	-.0480	
180.000	.0100	-.0410
225.000	-.0750	

DATE 18 SEP 73      TABULATED PRESSURE DATA - 1A9C      (RBNE22)  
 AWES 87-707 1A9 O2A + S3 + T9 OWS NOZZLE

SECTION ( 1 ) OWS NOZZLE      DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502    BETAT ( 4 ) = .560	X/LNM	.250	.400
	PHI		
	135.000	.0330	
	180.000	.0520	.1290
	225.000	-.0180	
MACH ( 3 ) = 3.502    BETAT ( 5 ) = 4.480	X/LNM	.250	.400
	PHI		
	135.000	-.0310	
	180.000	.0390	-.0410
	225.000	-.0440	
MACH ( 3 ) = 3.502    BETAT ( 6 ) = 6.750	X/LNM	.250	.400
	PHI		
	135.000	-.0690	
	180.000	-.0190	-.0780
	225.000	-.0490	
MACH ( 3 ) = 3.502    BETAT ( 7 ) = 8.910	X/LNM	.250	.400
	PHI		
	135.000	-.0720	
	180.000	-.0710	-.0790
	225.000	-.0960	

AVES 87-707 1A9 O2A + S3 + T9 BODY FLAP

(RBNF01) ( 30 MAY 73 )

REFERENCE DATA

SREF = 2.4216 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

PARAMETRIC DATA

BETAT = .0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	ALPHAT( 1 ) = -8.1000	X/LB	1.039
		PHI	
		.000	-.1000
		40.000	-.1520
MACH ( 1 ) = 2.498	ALPHAT( 2 ) = -6.0700	X/LB	1.039
		PHI	
		.000	-.1000
		40.000	-.1460
MACH ( 1 ) = 2.498	ALPHAT( 3 ) = -4.0300	X/LB	1.039
		PHI	
		.000	-.1010
		40.000	-.1300
MACH ( 1 ) = 2.498	ALPHAT( 4 ) = -2.0000	X/LB	1.039
		PHI	
		.000	-.0910
		40.000	-.1120
MACH ( 1 ) = 2.498	ALPHAT( 5 ) = .0000	X/LB	1.039
		PHI	
		.000	-.0850
		40.000	-.1130
MACH ( 1 ) = 2.498	ALPHAT( 6 ) = 1.9900	X/LB	1.039
		PHI	
		.000	-.0790
		40.000	-.0860
MACH ( 1 ) = 2.498	ALPHAT( 7 ) = 3.9000	X/LB	1.039
		PHI	
		.000	-.0660
		40.000	-.0800
MACH ( 1 ) = 2.498	ALPHAT( 8 ) = 5.9500	X/LB	1.039
		PHI	
		.000	-.0570
		40.000	-.0740

AMES 87-707 IAS O2A + S3 + T9 BODY FLAP

(RBNF01)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	ALPHAT( 9 ) = 8.510	X/LB	1.039
		PHI	
		.000	-.0440
		40.000	-.0720
MACH ( 2 ) = 2.999	ALPHAT( 1 ) = -8.070	X/LB	1.039
		PHI	
		.000	-.1040
		40.000	-.1230
MACH ( 2 ) = 2.999	ALPHAT( 2 ) = -6.100	X/LB	1.039
		PHI	
		.000	-.1060
		40.000	-.1270
MACH ( 2 ) = 2.999	ALPHAT( 3 ) = -4.070	X/LB	1.039
		PHI	
		.000	-.1010
		40.000	-.1240
MACH ( 2 ) = 2.999	ALPHAT( 4 ) = -2.100	X/LB	1.039
		PHI	
		.000	-.1070
		40.000	-.1220
MACH ( 2 ) = 2.999	ALPHAT( 5 ) = -.010	X/LB	1.039
		PHI	
		.000	-.0920
		40.000	-.1210
MACH ( 2 ) = 2.999	ALPHAT( 6 ) = 1.950	X/LB	1.039
		PHI	
		.000	-.0680
		40.000	-.1220
MACH ( 2 ) = 2.999	ALPHAT( 7 ) = 3.960	X/LB	1.039
		PHI	
		.000	-.0780
		40.000	-.1190
MACH ( 2 ) = 2.999	ALPHAT( 8 ) = 5.990	X/LB	1.039
		PHI	
		.000	-.0990
		40.000	-.1140

AMES 87-707 1A9 OEA + S3 + T9 BODY FLAP

(RDNFUS)

SECTION ( 1) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2) = 2.529	ALPHAT( 9) = 0.000	X/LB	1.039
		PHI	
		.000	-.0095
		40.000	-.0995
MACH ( 3) = 3.562	ALPHAT( 1) = -0.000	X/LB	1.039
		PHI	
		.000	-.0070
		40.000	-.0870
MACH ( 3) = 3.562	ALPHAT( 2) = -0.000	X/LB	1.039
		PHI	
		.000	-.0080
		40.000	-.0930
MACH ( 3) = 3.562	ALPHAT( 3) = -4.070	X/LB	1.039
		PHI	
		.000	-.0080
		40.000	-.0970
MACH ( 3) = 3.562	ALPHAT( 4) = -2.020	X/LB	1.039
		PHI	
		.000	-.0760
		40.000	-.0910
MACH ( 3) = 3.562	ALPHAT( 5) = -.000	X/LB	1.039
		PHI	
		.000	-.0090
		40.000	-.0910
MACH ( 3) = 3.562	ALPHAT( 6) = 1.990	X/LB	1.039
		PHI	
		.000	-.0650
		40.000	-.0940
MACH ( 3) = 3.502	ALPHAT( 7) = 3.960	X/LB	1.039
		PHI	
		.000	-.0640
		40.000	-.0890
MACH ( 3) = 3.562	ALPHAT( 8) = 5.970	X/LB	1.039
		PHI	
		.000	-.0530
		40.000	-.0920

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TABULATED PRESSURE DATA - 1A9C

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AMES 67-707 1A9 OCA + S3 + T9 BODY FLAP

(RBMFD01)

SECTION ( 3 ) BODY FLAP

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.562 ALPHAT( 9 ) = 6.030 X/LB 1.039  
PHI .0000 -.0370  
45.0000 -.0790

AMES 87-707 IAS OEA + S3 + T9 BODY FLAP

(RIBNF52) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 90.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .1660 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = -8.560 ORBINC = .950  
 RUDDER = .1660 ELEVON = .145  
 RUOFLR = .560

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -6.400	X/LB	PHI
		1.039	
		.500	-.1360
		40.500	-.1310
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.280	X/LB	PHI
		1.039	
		.500	-.1370
		40.500	-.1460
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.170	X/LB	PHI
		1.039	
		.500	-.1230
		40.500	-.1570
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.080	X/LB	PHI
		1.039	
		.500	-.1110
		40.500	-.1610
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.100	X/LB	PHI
		1.039	
		.500	-.1100
		40.500	-.1190
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.320	X/LB	PHI
		1.039	
		.500	-.1200
		40.500	-.1120
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.480	X/LB	PHI
		1.039	
		.500	-.1300
		40.500	-.1150
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.990	X/LB	PHI
		1.039	
		.500	-.1420
		40.500	-.1380



AMES 87-707 IA9 O2A + S3 + T9 BODY FLAP

(RBNFTD2)

## SECTION ( 1) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	BETAT ( 1) = -0.560	X/LB	1.039
		PHI	
		.000	-.1160
		40.000	-.0890
MACH ( 2) = 2.999	BETAT ( 2) = -6.400	X/LB	1.039
		PHI	
		.000	-.1150
		40.000	-.0960
MACH ( 2) = 2.999	BETAT ( 3) = -4.250	X/LB	1.039
		PHI	
		.000	-.1120
		40.000	-.1070
MACH ( 2) = 2.999	BETAT ( 4) = -2.100	X/LB	1.039
		PHI	
		.000	-.1090
		40.000	-.1190
MACH ( 2) = 2.999	BETAT ( 5) = 2.250	X/LB	1.039
		PHI	
		.000	-.1070
		40.000	-.1290
MACH ( 2) = 2.999	BETAT ( 6) = 4.400	X/LB	1.039
		PHI	
		.000	-.1090
		40.000	-.1230
MACH ( 2) = 2.999	BETAT ( 7) = 6.590	X/LB	1.039
		PHI	
		.000	-.1200
		40.000	-.1190
MACH ( 2) = 2.999	BETAT ( 8) = 6.750	X/LB	1.039
		PHI	
		.000	-.1210
		40.000	-.0990
MACH ( 3) = 3.502	BETAT ( 1) = -8.710	X/LB	1.039
		PHI	
		.000	-.0840
		40.000	-.0510

AMES 97-707 IAS OCA + S3 + T9 BODY FLAP

(RBNFTD2)

SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.520  
 X/LB 1.039  
 PHI  
 .020 -.0920  
 40.000 -.0930

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330  
 X/LB 1.039  
 PHI  
 .000 -.0840  
 40.000 -.0760

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140  
 X/LB 1.039  
 PHI  
 .000 -.0820  
 40.000 -.0790

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260  
 X/LB 1.039  
 PHI  
 .000 -.0890  
 40.000 -.0950

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.480  
 X/LB 1.039  
 PHI  
 .000 -.0850  
 40.000 -.0960

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.690  
 X/LB 1.039  
 PHI  
 .000 -.0910  
 40.000 -.0960

MACH ( 3 ) = 3.502 BETAT ( 8 ) = 8.910  
 X/LB 1.039  
 PHI  
 .020 -.0950  
 40.000 -.0930

TABULATED PRESSURE DATA - IASC

DATE 18 SEP 73

(RBNF13) ( 15 MAY 73 )

AWES 87-707 1A9 02A + S3 + T9 BODY FLAP

PARAMETRIC DATA  
 ALPHA = -6.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .03125 SCALE

SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -0.420 X/LB 1.039  
 PHI .000 -0.1330  
 40.000 -0.1320

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -0.290 X/LB 1.039  
 PHI .000 -0.1290  
 40.000 -0.1420

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -0.180 X/LB 1.039  
 PHI .000 -0.1270  
 40.000 -0.1570

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -0.070 X/LB 1.039  
 PHI .000 -0.1140  
 40.000 -0.1590

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180 X/LB 1.039  
 PHI .000 -0.1090  
 40.000 -0.1190

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.310 X/LB 1.039  
 PHI .000 -0.1140  
 40.000 -0.1010

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.440 X/LB 1.039  
 PHI .000 -0.1220  
 40.000 -0.1160

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.570 X/LB 1.039  
 PHI .000 -0.1320  
 40.000 -0.1350

DATE 18 SEP 73

TABLATED PRESSURE DATA - 1ASC

PAGE 062

AMES 87-707 IAS OCA + S3 + T9 BODY FLAP

(RBNFTD3)

SECTION ( 1) BODY FLAP

DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	BETAT ( 1) = -0.570	X/LB	1.039
		PHI	
		.000	-.1140
		40.000	-.0880
MACH ( 2) = 2.999	BETAT ( 2) = -0.420	X/LB	1.039
		PHI	
		.000	-.1090
		40.000	-.0930
MACH ( 2) = 2.999	BETAT ( 3) = -4.260	X/LB	1.039
		PHI	
		.000	-.1110
		40.000	-.1050
MACH ( 2) = 2.999	BETAT ( 4) = -2.100	X/LB	1.039
		PHI	
		.000	-.1100
		40.000	-.1180
MACH ( 2) = 2.999	BETAT ( 5) = 2.220	X/LB	1.039
		PHI	
		.000	-.1060
		40.000	-.1290
MACH ( 2) = 2.999	BETAT ( 6) = 4.390	X/LB	1.039
		PHI	
		.000	-.1070
		40.000	-.1200
MACH ( 2) = 2.999	BETAT ( 7) = 6.560	X/LB	1.039
		PHI	
		.000	-.1110
		40.000	-.0920
MACH ( 2) = 2.999	BETAT ( 8) = 0.730	X/LB	1.039
		PHI	
		.000	-.1190
		40.000	-.0940
MACH ( 3) = 3.502	BETAT ( 1) = -0.730	X/LB	1.039
		PHI	
		.000	-.0830
		40.000	-.0490

DATE 18 SEP 73

TABLULATED PRESSURE DATA - IA9C  
 AMES 87-707 IA9 O2A + S3 + T9 BODY FLAP

(RBNFD3)

SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.530	X/LB	1.039
		PHI	
		40.000	-.0860
		40.000	-.0820
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.340	X/LB	1.039
		PHI	
		40.000	-.0840
		40.000	-.0780
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.140	X/LB	1.039
		PHI	
		40.000	-.0850
		40.000	-.0860
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	X/LB	1.039
		PHI	
		40.000	-.0690
		40.000	-.0970
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.470	X/LB	1.039
		PHI	
		40.000	-.0690
		40.000	-.1010
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.680	X/LB	1.039
		PHI	
		40.000	-.0940
		40.000	-.0970
MACH ( 3 ) = 3.502	BETAT ( 8 ) = 8.890	X/LB	1.039
		PHI	
		40.000	-.0930
		40.000	-.0910

AMES 87-707 1A9 OEA + S3 + T9 BODY FLAP

(RBNFU4) ( 11 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 SREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = -4.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDDFLR = .0000

SECTION ( 1 ) BODY FLAP

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -6.430	X/LB	PHI	X/LB	PHI
		1.039	.000	1.039	.000
			40.000		40.000
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.310	X/LB	PHI	X/LB	PHI
		1.039	.000	1.039	.000
			40.000		40.000
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.190	X/LB	PHI	X/LB	PHI
		1.039	.000	1.039	.000
			40.000		40.000
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	X/LB	PHI	X/LB	PHI
		1.039	.000	1.039	.000
			40.000		40.000
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	X/LB	PHI	X/LB	PHI
		1.039	.000	1.039	.000
			40.000		40.000
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.300	X/LB	PHI	X/LB	PHI
		1.039	.000	1.039	.000
			40.000		40.000
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.430	X/LB	PHI	X/LB	PHI
		1.039	.000	1.039	.000
			40.000		40.000
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.550	X/LB	PHI	X/LB	PHI
		1.039	.000	1.039	.000
			40.000		40.000



DATE 18 SEP 73

TABLULATED PRESSURE DATA - IA9C

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AMES 87-707 IA9 OCA + S3 + T9 BODY FLAP

(RBINF04)

SECTION ( 1) BODY FLAP DEPENDENT VARIABLE CF

MACH ( 2) = 2.999 BETAT ( 1) = -8.580

X/LB 1.030  
PHI  
.0000 -.1030  
40.0000 -.0860

MACH ( 2) = 2.999 BETAT ( 2) = -6.420

X/LB 1.039  
PHI  
.0000 -.1150  
40.0000 -.0950

MACH ( 2) = 2.999 BETAT ( 3) = -4.260

X/LB 1.039  
PHI  
.0000 -.1050  
40.0000 -.1050

MACH ( 2) = 2.999 BETAT ( 4) = -2.110

X/LB 1.039  
PHI  
.0000 -.1040  
40.0000 -.1180

MACH ( 2) = 2.999 BETAT ( 5) = 2.210

X/LB 1.039  
PHI  
.0000 -.1050  
40.0000 -.1240

MACH ( 2) = 2.999 BETAT ( 6) = 4.380

X/LB 1.039  
PHI  
.0000 -.1030  
40.0000 -.1040

MACH ( 2) = 2.999 BETAT ( 7) = 6.550

X/LB 1.039  
PHI  
.0000 -.1160  
40.0000 -.0880

MACH ( 2) = 2.999 BETAT ( 8) = 8.710

X/LB 1.039  
PHI  
.0000 -.1090  
40.0000 -.0920

MACH ( 3) = 3.302 BETAT ( 1) = -8.740

X/LB 1.039  
PHI  
.0000 -.0860  
40.0000 -.0530

AMES 87-717 1A9 CEA + S3 + T9 BODY FLAP

(RBNFTU4)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.512 BETAT ( 2 ) = -6.540 X/LB 1.039  
 PHI  
 .1440 -1.0890  
 40.1440 -1.0670

MACH ( 3 ) = 3.512 BETAT ( 3 ) = -4.340 X/LB 1.039  
 PHI  
 .1440 -1.0830  
 40.1440 -1.0760

MACH ( 3 ) = 3.512 BETAT ( 4 ) = -2.150 X/LB 1.039  
 PHI  
 .1440 -1.0810  
 40.1440 -1.0660

MACH ( 3 ) = 3.512 BETAT ( 5 ) = 2.260 X/LB 1.039  
 PHI  
 .1440 -1.0840  
 40.1440 -1.0970

MACH ( 3 ) = 3.512 BETAT ( 6 ) = 4.460 X/LB 1.039  
 PHI  
 .1440 -1.0860  
 40.1440 -1.0940

MACH ( 3 ) = 3.512 BETAT ( 7 ) = 6.660 X/LB 1.039  
 PHI  
 .1440 -1.0940  
 40.1440 -1.0950

MACH ( 3 ) = 3.512 BETAT ( 8 ) = 8.870 X/LB 1.039  
 PHI  
 .1440 -1.0930  
 40.1440 -1.0790



AVES 87-717 1A9 OZA + S3 + T9 BODY FLAP

(RBNF05) ( 1D MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = 0.0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = 0.0000 INCHES  
 SCALE = 0.0000 SCALE

PARAMETRIC DATA

ALPHAT = -2.0000 ORBINC = 0.5000  
 RUDDER = 0.0000 ELEVON = 0.0000  
 RUDFLR = 0.0000

SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.430  
 X/LB 1.039  
 PHI 0.000  
 40.000 -0.1340  
 40.000 -0.1300

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.310  
 X/LB 1.039  
 PHI 0.000  
 40.000 -0.1190  
 40.000 -0.1430

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.190  
 X/LB 1.039  
 PHI 0.000  
 40.000 -0.1100  
 40.000 -0.1540

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.070  
 X/LB 1.039  
 PHI 0.000  
 40.000 -0.0940  
 40.000 -0.1390

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180  
 X/LB 1.039  
 PHI 0.000  
 40.000 -0.0990  
 40.000 -0.1010

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.300  
 X/LB 1.039  
 PHI 0.000  
 40.000 -0.1140  
 40.000 -0.1060

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.420  
 X/LB 1.039  
 PHI 0.000  
 40.000 -0.1140  
 40.000 -0.1120

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.540  
 X/LB 1.039  
 PHI 0.000  
 40.000 -0.1240  
 40.000 -0.1190

AMES 87-757 IA9 O2A + S3 + T9 BODY FLAP

(RBNFUS)

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.990	X/LB	1.039
		PHI	
		40.166	-0.094
			-0.087
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.440	X/LB	1.039
		PHI	
		40.166	-0.099
			-0.096
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.270	X/LB	1.039
		PHI	
		40.166	-0.099
			-0.104
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.110	X/LB	1.039
		PHI	
		40.166	-0.094
			-0.117
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.220	X/LB	1.039
		PHI	
		40.166	-0.099
			-0.109
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.370	X/LB	1.039
		PHI	
		40.166	-0.099
			-0.082
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.530	X/LB	1.039
		PHI	
		40.166	-0.087
			-0.073
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.700	X/LB	1.039
		PHI	
		40.020	-0.104
			-0.088
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.790	X/LB	1.039
		PHI	
		40.166	-0.094
			-0.090

AMES 87-707 1A9 CEA + S3 + T9 BODY FLAP

(RBNFUS)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.540	X/LB	1.039
		PHI	
		.000	-.07840
		40.000	-.06400
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.350	X/LB	1.039
		PHI	
		.000	-.07300
		40.000	-.07700
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.140	X/LB	1.039
		PHI	
		.000	-.07600
		40.000	-.08700
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	X/LB	1.039
		PHI	
		.000	-.07700
		40.000	-.08300
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.460	X/LB	1.039
		PHI	
		.000	-.07400
		40.000	-.07900
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.660	X/LB	1.039
		PHI	
		.000	-.06900
		40.000	-.07500
MACH ( 3 ) = 3.502	BETAT ( 8 ) = 8.860	X/LB	1.039
		PHI	
		.000	-.09100
		40.000	-.07100

ANES 07-707 1A9 02A + S3 + T9 BODY FLAP

(RBNFUS) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 29.5300 INCHES  
 LREF = 39.8490 INCHES YREF = .0000 INCHES  
 SREF = 39.8490 INCHES ZREF = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = .000  
 RUDDER = .000  
 RUDFLP = .000  
 OPG1VC = .500  
 ELEVON = .000

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -6.430	X/LB	PHI
		1.039	.000
			-0.1290
		40.000	-0.1290
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.310	X/LB	PHI
		1.039	.000
			-0.1030
		40.000	-0.1030
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.190	X/LB	PHI
		1.039	.000
			-0.1030
		40.000	-0.1030
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	X/LB	PHI
		1.039	.000
			-0.1030
		40.000	-0.1030
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.170	X/LB	PHI
		1.039	.000
			-0.0990
		40.000	-0.0990
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.290	X/LB	PHI
		1.039	.000
			-0.0990
		40.000	-0.0990
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.410	X/LB	PHI
		1.039	.000
			-0.1110
		40.000	-0.1110
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.540	X/LB	PHI
		1.039	.000
			-0.1190
		40.000	-0.1190
MACH ( 1 ) = 2.498	BETAT ( 9 ) = 0.500	X/LB	PHI
		1.039	.000
			-0.1200
		40.000	-0.1200



AMES 87-757 IA9 OZA + S3 + T9 BODY FLAP

(RBNFJ6)

SECTION : 1; BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.599 X/LB 1.039  
PHI .000 -.0970  
40.0000 -.0840

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.439 X/LB 1.039  
PHI .000 -.0920  
40.0000 -.0990

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.270 X/LB 1.039  
PHI .000 -.0870  
40.0000 -.0970

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.110 X/LB 1.039  
PHI .000 -.0870  
40.0000 -.1170

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.210 X/LB 1.039  
PHI .000 -.0870  
40.0000 -.0870

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.370 X/LB 1.039  
PHI .000 -.0890  
40.0000 -.0820

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.530 X/LB 1.039  
PHI .000 -.0920  
40.0000 -.0790

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 8.680 X/LB 1.039  
PHI .000 -.0910  
40.0000 -.0840

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.750 X/LB 1.039  
PHI .000 -.0810  
40.0000 -.0540

AMES 87-757 IAS OEA + S3 + T9 BODY FLAP

(REF:56)

## SECTION 1) BODY FLAP

## DEPENDENT VARIABLE CP

MACH (3) = 3.562	BETAT (2) = -6.994	X/LB	1.039
		PHI	
		.1000	-.1690
		40.0000	-.1690
MACH (3) = 3.562	BETAT (3) = -4.340	X/LB	1.039
		PHI	
		.1000	-.1730
		40.0000	-.1690
MACH (3) = 3.562	BETAT (4) = -2.150	X/LB	1.039
		PHI	
		.1000	-.1730
		40.0000	-.1690
MACH (3) = 3.562	BETAT (5) = 2.280	X/LB	1.039
		PHI	
		.1000	-.1710
		40.0000	-.1670
MACH (3) = 3.562	BETAT (6) = 4.450	X/LB	1.039
		PHI	
		.1000	-.1750
		40.0000	-.1760
MACH (3) = 3.562	BETAT (7) = 6.650	X/LB	1.039
		PHI	
		.1000	-.1920
		40.0000	-.1770
MACH (3) = 3.562	BETAT (8) = 8.850	X/LB	1.039
		PHI	
		.1000	-.1910
		40.0000	-.1720

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5374 INCHES  
 YREF = 39.8490 INCHES YMRP = 17.7211 INCHES  
 ZREF = 39.8490 INCHES ZMRP = 17.7211 INCHES  
 SCALE = .0392 SCALE

PARAMETRIC DATA

ALPHAT = 2.5660 ORBINC = .5920  
 RUDDER = .5660 ELEVON = .5660  
 RUDFLR = .5660

SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -9.430	Y/LB	1.039
		PHI	
		.500	-.1110
		40.000	-.1230
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.310	X/LB	1.039
		PHI	
		.500	-.1140
		40.000	-.1340
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.190	X/LB	1.039
		PHI	
		.500	-.0960
		40.000	-.1480
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.060	X/LB	1.039
		PHI	
		.500	-.0830
		40.000	-.1260
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.170	X/LB	1.039
		PHI	
		.500	-.0800
		40.000	-.0780
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.290	X/LB	1.039
		PHI	
		.500	-.0990
		40.000	-.0690
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.410	X/LB	1.039
		PHI	
		.500	-.1110
		40.000	-.1020
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.540	X/LB	1.039
		PHI	
		.500	-.1220
		40.000	-.1060

AWES 87-707 1A9 O2A + S3 + T9 BODY FLAP

(RBNF077)

## SECTION ( 1) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 2) = 2.999 BETAT ( 1) = -8.595

X/LB	1.039
PHI	
.020	-.0980
40.000	-.1830

MACH ( 2) = 2.999 BETAT ( 2) = -6.420

X/LB	1.039
PHI	
.020	-.0880
40.000	-.1960

MACH ( 2) = 2.999 BETAT ( 3) = -4.270

X/LB	1.039
PHI	
.020	-.0830
40.000	-.1100

MACH ( 2) = 2.999 BETAT ( 4) = -2.110

X/LB	1.039
PHI	
.020	-.0630
40.000	-.1180

MACH ( 2) = 2.999 BETAT ( 5) = 2.210

X/LB	1.039
PHI	
.020	-.0840
40.000	-.1980

MACH ( 2) = 2.999 BETAT ( 6) = 4.370

X/LB	1.039
PHI	
.020	-.0790
40.000	-.1760

MACH ( 2) = 2.999 BETAT ( 7) = 6.530

X/LB	1.039
PHI	
.020	-.0870
40.000	-.1810

MACH ( 2) = 2.999 BETAT ( 8) = 8.680

X/LB	1.039
PHI	
.020	-.0980
40.000	-.1830

MACH ( 3) = 3.502 BETAT ( 1) = -8.730

X/LB	1.039
PHI	
.020	-.0850
40.000	-.1590

END



AMES 87-717 1A9 OZA + S3 + T9 BODY FLAP

(RBNFLU7)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.512	BETAT ( 2 ) = -6.540	X/LB	1.039
		PHI	
		.160	-.0780
		40.160	-.0780
MACH ( 3 ) = 3.512	BETAT ( 3 ) = -4.340	X/LB	1.039
		PHI	
		.160	-.0680
		40.160	-.0780
MACH ( 3 ) = 3.512	BETAT ( 4 ) = -2.140	X/LB	1.039
		PHI	
		.160	-.0660
		40.160	-.0890
MACH ( 3 ) = 3.512	BETAT ( 5 ) = 2.250	X/LB	1.039
		PHI	
		.160	-.0690
		40.160	-.0890
MACH ( 3 ) = 3.512	BETAT ( 6 ) = 4.460	X/LB	1.039
		PHI	
		.160	-.0710
		40.160	-.0720
MACH ( 3 ) = 3.512	BETAT ( 7 ) = 6.660	X/LB	1.039
		PHI	
		.160	-.0880
		40.160	-.0720
MACH ( 3 ) = 3.512	BETAT ( 8 ) = 8.890	X/LB	1.039
		PHI	
		.160	-.0910
		40.160	-.0720

AVES 87-757 IA9 OGA + S3 + T9 BODY FLAP

(RBNFDS) ( 15 MAY 73 )

## REFERENCE DATA

SREF = 2.4215 SQ.FT. XMRP = 28.5355 INCHES  
 LREF = 39.8495 INCHES YMRP = .5725 INCHES  
 BREF = 39.8495 INCHES ZMRP = .5725 INCHES  
 SCALE = .5315 SCALE

## PARAMETRIC DATA

ALPHAT = 4.555  
 RUDDER = .555  
 RUDFLR = .555  
 ORBINC = .555  
 ELEVON = .555

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -9.425

X/LB 1.039  
 PHI .555  
 45.555 -1.155  
 45.555 -1.235

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.365

X/LB 1.039  
 PHI .555  
 45.555 -1.155  
 45.555 -1.315

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.195

X/LB 1.039  
 PHI .555  
 45.555 -1.155  
 45.555 -1.145

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.575

X/LB 1.039  
 PHI .555  
 45.555 -1.155  
 45.555 -1.145

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.175

X/LB 1.039  
 PHI .555  
 45.555 -1.155  
 45.555 -1.175

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.355

X/LB 1.039  
 PHI .555  
 45.555 -1.155  
 45.555 -1.085

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.425

X/LB 1.039  
 PHI .555  
 45.555 -1.155  
 45.555 -1.095

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.555

X/LB 1.039  
 PHI .555  
 45.555 -1.155  
 45.555 -1.175

AMES 87-757 IA9 OEA + S3 + T9 BODY FLAP

(RBNF:18)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.580	X/LB	1.039
		PHI	
		.000	-.0960
		40.000	-.0830
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.420	X/LB	1.039
		PHI	
		.000	-.0850
		40.000	-.0950
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.260	X/LB	1.039
		PHI	
		.000	-.0740
		40.000	-.1100
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.100	X/LB	1.039
		PHI	
		.000	-.0730
		40.000	-.1130
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.210	X/LB	1.039
		PHI	
		.000	-.0750
		40.000	-.0940
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.370	X/LB	1.039
		PHI	
		.000	-.0810
		40.000	-.0730
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.540	X/LB	1.039
		PHI	
		.000	-.0810
		40.000	-.0780
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.700	X/LB	1.039
		PHI	
		.000	-.0950
		40.000	-.0820
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.720	X/LB	1.039
		PHI	
		.000	-.0810
		40.000	-.0550

AMES 87-707 IAS O2A + S3 + T9 BODY FLAP

(RBNF10)

SECTION ( 1 ) BODY FLAP	DEPENDENT VARIABLE CP
MACH ( 3 ) = 3.512 BETAT ( 2 ) = -6.531	X/LB 1.039 PHI .000 -0.0720 40.000 -0.0660
MACH ( 3 ) = 3.512 BETAT ( 3 ) = -4.331	X/LB 1.039 PHI .000 -0.0630 40.000 -0.0760
MACH ( 3 ) = 3.512 BETAT ( 4 ) = -2.141	X/LB 1.039 PHI .000 -0.0640 40.000 -0.0840
MACH ( 3 ) = 3.512 BETAT ( 5 ) = 2.281	X/LB 1.039 PHI .000 -0.0660 40.000 -0.0830
MACH ( 3 ) = 3.512 BETAT ( 6 ) = 4.481	X/LB 1.039 PHI .000 -0.0690 40.000 -0.0750
MACH ( 3 ) = 3.512 BETAT ( 7 ) = 6.681	X/LB 1.039 PHI .000 -0.0760 40.000 -0.0630
MACH ( 3 ) = 3.512 BETAT ( 8 ) = 8.881	X/LB 1.039 PHI .000 -0.0910 40.000 -0.0750



DATE 18 SEP 73 TABULATED PRESSURE DATA - 145K

AME: 27-73-143 ORA + 23 + 73 BODY FLAP

REVISION: 1 21 MAR 73

REFERENCE DATA

REF = 2.4211 30.87, MPB = 29.8214 INCHES  
REF = 29.8491 INCHES MPB = 30.11 INCHES  
REF = 29.8491 INCHES ZMS = 30.00 INCHES  
SCALE = 1000 SCALE

PARAMETRIC DATA

ALPHA = 0.11 DEFANG = 0.00  
BETA = 0.11 DEFCON = 0.00  
GAMMA = 0.11

SECTION / 1:900 FLAP DEPENDENT VARIABLE C

WACN ( 1 ) = 2.438	BETAT ( 1 ) = -2.411	1/2B	1/2B
		0.00	1.139
		4.111	-1.940
			-1.126
WACN ( 2 ) = 2.438	BETAT ( 2 ) = -2.291	1/2B	1.139
		0.00	-1.940
		4.111	-1.126
WACN ( 3 ) = 2.438	BETAT ( 3 ) = -4.170	1/2B	1.139
		0.00	-1.940
		4.111	-1.126
WACN ( 4 ) = 2.438	BETAT ( 4 ) = -2.150	1/2B	1.139
		0.00	-1.940
		4.111	-1.126
WACN ( 5 ) = 2.438	BETAT ( 5 ) = 2.180	1/2B	1.139
		0.00	-1.940
		4.111	-1.126
WACN ( 6 ) = 2.438	BETAT ( 6 ) = 4.370	1/2B	1.139
		0.00	-1.940
		4.111	-1.126
WACN ( 7 ) = 2.438	BETAT ( 7 ) = 5.440	1/2B	1.139
		0.00	-1.940
		4.111	-1.126
WACN ( 8 ) = 2.438	BETAT ( 8 ) = 2.170	1/2B	1.139
		0.00	-1.940
		4.111	-1.126

AMES 87-757 IA9 CRA + S3 + T9 BODY FLAP

(REAPV9)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2 ) =	BETAT ( 1 ) =	X/LB	PHI
2.999	-8.562	1.039	
		.500	-.0980
		40.500	-.0760
2.999	-6.814	1.039	
		.500	-.0770
		40.500	-.0910
2.999	-4.290	1.039	
		.500	-.0690
		40.500	-.0100
2.999	-2.100	1.039	
		.500	-.0590
		40.500	-.0120
2.999	2.210	1.039	
		.500	-.0560
		40.500	-.0700
2.999	4.300	1.039	
		.500	-.0670
		40.500	-.0620
2.999	6.590	1.039	
		.500	-.0690
		40.500	-.0710
2.999	8.720	1.039	
		.500	-.0860
		40.500	-.0780
3.502	-8.710	1.039	
		.500	-.0890
		40.500	-.0580

AMES 87-707 IA9 OEA + S3 + T9 BODY FLAP

(RBNF19)

## SECTION 1 BODY FLAP DEPENDENT VARIABLE CP

MACH (3) = 3.542	BETA (2) = -6.911	X/LB	1.039
		PHI	
		.000	-.5710
		40.000	-.5650
MACH (3) = 3.542	BETA (3) = -4.320	X/LB	1.039
		PHI	
		.000	-.5570
		40.000	-.5760
MACH (3) = 3.542	BETA (4) = -2.130	X/LB	1.039
		PHI	
		.000	-.5510
		40.000	-.5690
MACH (3) = 3.542	BETA (5) = 2.280	X/LB	1.039
		PHI	
		.000	-.5260
		40.000	-.5750
MACH (3) = 3.542	BETA (6) = 4.470	X/LB	1.039
		PHI	
		.000	-.5620
		40.000	-.5750
MACH (3) = 3.542	BETA (7) = 6.670	X/LB	1.039
		PHI	
		.000	-.5720
		40.000	-.5600
MACH (3) = 3.542	BETA (8) = 8.860	X/LB	1.039
		PHI	
		.000	-.5690
		40.000	-.5740

AMES 87-707 1A9 O2A + S3 + T9 BODY FLAP

(RBNF10) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 20.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .1000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .1000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = 0.0000 ORBINC = .5000  
 RUDRER = .0000 ELEVON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -0.380

X/LD 1.039  
 PHI  
 40.000 -0.0680  
 40.000 -0.1280

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.270

X/LB 1.039  
 PHI  
 40.000 -0.0680  
 40.000 -0.1370

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.170

X/LB 1.039  
 PHI  
 40.000 -0.0560  
 40.000 -0.1250

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.060

X/LB 1.039  
 PHI  
 40.000 -0.0470  
 40.000 -0.0890

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.180

X/LB 1.039  
 PHI  
 40.000 -0.0520  
 40.000 -0.0630

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.320

X/LB 1.039  
 PHI  
 40.000 -0.0590  
 40.000 -0.0680

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.450

X/LB 1.039  
 PHI  
 40.000 -0.0740  
 40.000 -0.0810

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.580

X/LB 1.039  
 PHI  
 40.000 -0.0760  
 40.000 -0.0890



AMES 07-7:7 1A9 ORA + S3 + T9 BODY FLAP

(RDNF1U)

## SECTION / BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 3 ) = -0.540	X/LB	1.039
		PHI	
		.000	-0.080
		40.000	-0.070
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -5.390	X/LB	1.039
		PHI	
		.000	-0.050
		40.000	-0.090
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.240	X/LB	1.039
		PHI	
		.000	-0.030
		40.000	-0.040
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.090	X/LB	1.039
		PHI	
		.000	-0.020
		40.000	-0.010
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.290	X/LB	1.039
		PHI	
		.000	-0.020
		40.000	-0.010
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.400	X/LB	1.039
		PHI	
		.000	-0.050
		40.000	-0.050
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.570	X/LB	1.039
		PHI	
		.000	-0.060
		40.000	-0.070
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.740	X/LB	1.039
		PHI	
		.000	-0.070
		40.000	-0.080
MACH ( 3 ) = 3.500	BETAT ( 1 ) = -0.690	X/LB	1.039
		PHI	
		.000	-0.070
		40.000	-0.050

AMES 87-757 1A9 ORA + 33 + 79 BODY FLAP

(CONFID)

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.912	SECTAT ( 2 ) = -8.950	X/LB	1.109
		PHI	
		0.100	-1.0000
		0.200	-1.0000
MACH ( 3 ) = 3.912	SECTAT ( 3 ) = -4.315	X/LB	1.109
		PHI	
		0.100	-1.0000
		0.200	-1.0000
MACH ( 3 ) = 3.928	SECTAT ( 4 ) = -2.130	X/LB	1.109
		PHI	
		0.100	-1.0000
		0.200	-1.0000
MACH ( 3 ) = 3.912	SECTAT ( 5 ) = 2.280	X/LB	1.109
		PHI	
		0.100	-1.0000
		0.200	-1.0000
MACH ( 3 ) = 3.912	SECTAT ( 6 ) = 4.480	X/LB	1.109
		PHI	
		0.100	-1.0000
		0.200	-1.0000
MACH ( 3 ) = 3.912	SECTAT ( 7 ) = 6.680	X/LB	1.109
		PHI	
		0.100	-1.0000
		0.200	-1.0000
MACH ( 3 ) = 3.912	SECTAT ( 8 ) = 8.910	X/LB	1.109
		PHI	
		0.100	-1.0000
		0.200	-1.0000

AMES 87-717 1A9 ORA + 33 + 79 BODY FLAP

(BENF11) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4215 50.FT. XORP = 22.5350 INCHES  
 LREF = 39.8450 INCHES XMRP = 2.1150 INCHES  
 ZREF = 39.8450 INCHES ZMRP = 2.0000 INCHES  
 SCALE = 0.0001 SCALE

## PARAMETRIC DATA

ALPHAT = -8.5600 ORBITMC = .5100  
 PUDOPR = -15.1000 ELEVON = .2100  
 RUDFLB = .1000

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -9.390	X/LB	PHI
		1.039	
		.000	-.1270
		40.000	-.1220
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.270	X/LB	PHI
		1.039	
		.000	-.1200
		40.000	-.1420
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	X/LB	PHI
		1.039	
		.000	-.1130
		40.000	-.1520
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .560	X/LB	PHI
		1.039	
		.000	-.1010
		40.000	-.1480
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.330	X/LB	PHI
		1.039	
		.000	-.1140
		40.000	-.1520
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.480	X/LB	PHI
		1.039	
		.000	-.1170
		40.000	-.1590
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.620	X/LB	PHI
		1.039	
		.000	-.1340
		40.000	-.1330
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.960	X/LB	PHI
		1.039	
		.000	-.1190
		40.000	-.1690

AMES 87-757 IAS OEA + S3 + T9 BODY FLAP

(RBNF11)

## SECTION ( 2 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.415  
 X/LB 1.039  
 PHI  
 .000 -0.1190  
 #0.100 -0.1911

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.260  
 X/LB 1.039  
 PHI  
 .000 -0.1070  
 #0.100 -0.1140

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .050  
 X/LB 1.039  
 PHI  
 .000 -0.1030  
 #0.100 -0.1210

MACH ( 2 ) = 2.999 BETAT ( 5 ) = -1.010  
 X/LB 1.039  
 PHI  
 .000 -0.1070  
 #0.100 -0.1210

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.505  
 X/LB 1.039  
 PHI  
 .000 -0.1180  
 #0.100 -0.1130

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.750  
 X/LB 1.039  
 PHI  
 .000 -0.1220  
 #0.100 -0.1030

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.710  
 X/LB 1.039  
 PHI  
 .000 -0.0790  
 #0.100 -0.1460

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.520  
 X/LB 1.039  
 PHI  
 .000 -0.0820  
 #0.100 -0.1570

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330  
 X/LB 1.039  
 PHI  
 .000 -0.0810  
 #0.100 -0.1720

AVES 07-707 1A9 OCA + S3 + T9 BODY FLAP

(RBNF11)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 4 ) = .050	X/LB	1.039
		PHI	
		.500	-.1870
		40.500	-.0890
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.470	X/LB	1.039
		PHI	
		.500	-.1870
		40.500	-.1960
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.690	X/LB	1.039
		PHI	
		.500	-.1890
		40.500	-.1940
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.900	X/LB	1.039
		PHI	
		.500	-.1900
		40.500	-.1860

ANES 07-707 1A9 02A + S3 + T9 BODY FLAP

(RBNF12) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5310 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHAT = -4.0000 ORBINC = .5000  
 RUDDER = -15.0000 ELEVON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	X/LB	1.039
		PHI	
		40.000	-0.1290
		40.000	-0.1260
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	X/LB	1.039
		PHI	
		40.000	-0.1170
		40.000	-0.1380
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	X/LB	1.039
		PHI	
		40.000	-0.1190
		40.000	-0.1490
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .060	X/LB	1.039
		PHI	
		40.000	-0.0880
		40.000	-0.1160
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.310	X/LB	1.039
		PHI	
		40.000	-0.1170
		40.000	-0.0980
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.430	X/LB	1.039
		PHI	
		40.000	-0.1190
		40.000	-0.1120
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.560	X/LB	1.039
		PHI	
		40.000	-0.1220
		40.000	-0.1220
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.580	X/LB	1.039
		PHI	
		40.000	-0.1090
		40.000	-0.0870

AMES 87-757 IA9 O2A + S3 + T9 BODY FLAP

(RBNF12)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.430	X/LB	1.039
		PHI	
		.000	-.1190
		40.000	-.0880
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.270	X/LB	1.039
		PHI	
		.000	-.1050
		40.000	-.1070
MACH ( 2 ) = 2.999	BETAT ( 4 ) = .050	X/LB	1.039
		PHI	
		.000	-.0870
		40.000	-.1180
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.380	X/LB	1.039
		PHI	
		.000	-.1010
		40.000	-.0980
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.550	X/LB	1.039
		PHI	
		.000	-.1140
		40.000	-.0810
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 8.710	X/LB	1.039
		PHI	
		.000	-.1010
		40.000	-.0880
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.740	X/LB	1.039
		PHI	
		.000	-.0880
		40.000	-.0480
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.540	X/LB	1.039
		PHI	
		.000	-.0800
		40.000	-.0670
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.350	X/LB	1.039
		PHI	
		.000	-.0840
		40.000	-.0780

AVES 87-707 IAS OZA + S3 + T9 BODY FLAP

(RBNF12)

SECTION : 1) BODY FLAP

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.5/2	BETAT ( 4 ) = .595	X/LB	1.539
		PHI	
		.500	-.5790
		45.500	-.5865
MACH ( 3 ) = 3.5/2	BETAT ( 5 ) = 4.465	X/LB	1.539
		PHI	
		.500	-.5845
		45.500	-.5945
MACH ( 3 ) = 3.5/2	BETAT ( 6 ) = 6.665	X/LB	1.539
		PHI	
		.500	-.5920
		45.500	-.5915
MACH ( 3 ) = 3.5/2	BETAT ( 7 ) = 8.965	X/LB	1.539
		PHI	
		.500	-.5965
		45.500	-.5795



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TABULATED PRESSURE DATA - IA9C

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AMES 87-707 IA9 O2A + S3 + T9 BODY FLAP

(RBNF13) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 29.5300 INCHES  
YREF = 39.8490 INCHES YMRP =  
ZREF = 39.8490 INCHES ZMRP =  
SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = .0000 ORBINC = .5000  
RUDDER = -15.0000 ELEVON = .0000  
RUDFLR = .0000

SECTION ( 1 ) BODY FLAP

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.420

X/LB 1.039  
PHI  
.0000 -.1160  
40.0000 -.1200

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.300

X/LB 1.039  
PHI  
.0000 -.1010  
40.0000 -.1360

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180

X/LB 1.039  
PHI  
.0000 -.0950  
40.0000 -.1450

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .060

X/LB 1.039  
PHI  
.0000 -.0740  
40.0000 -.1010

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.300

X/LB 1.039  
PHI  
.0000 -.1020  
40.0000 -.0860

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.420

X/LB 1.039  
PHI  
.0000 -.1080  
40.0000 -.0990

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 8.540

X/LB 1.039  
PHI  
.0000 -.1130  
40.0000 -.1070

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.580

X/LB 1.039  
PHI  
.0000 -.0920  
40.0000 -.0800

ANES 87-707 IAS O2A + S3 + T9 BODY FLAP

(RBNF13)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.420	X/LB	1.039
		PHI	
		.500	-.0850
		40.500	-.0950
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.260	X/LB	1.039
		PHI	
		.500	-.0870
		40.500	-.0990
MACH ( 2 ) = 2.999	BETAT ( 4 ) = .560	X/LB	1.039
		PHI	
		.500	-.0890
		40.500	-.1160
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.380	X/LB	1.039
		PHI	
		.500	-.0780
		40.500	-.0740
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.540	X/LB	1.039
		PHI	
		.500	-.0860
		40.500	-.0760
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 8.680	X/LB	1.039
		PHI	
		.500	-.0900
		40.500	-.0750
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -6.750	X/LB	1.039
		PHI	
		.500	-.0950
		40.500	-.0490
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.550	X/LB	1.039
		PHI	
		.500	-.0810
		40.500	-.0620
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.350	X/LB	1.039
		PHI	
		.500	-.0560
		40.500	-.0760



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TABULATED PRESSURE DATA - 1A9C

PAGE 691

AMES 87-757 1A9 ORA + S3 + T9 BODY FLAP

(RBNF13)

SECTION ( 1 ) BODY FLAP DEFICENT VARIABLE CP

MACH ( 3 ) = 3.512 BETAT ( 4 ) = .596 X/LB 1.039  
PHI .000 -.5555  
40.000 -.5885

MACH ( 3 ) = 3.512 BETAT ( 5 ) = 4.455 X/LB 1.039  
PHI .000 -.5475  
40.000 -.5715

MACH ( 3 ) = 3.512 BETAT ( 6 ) = 6.850 X/LB 1.039  
PHI .000 -.5595  
40.000 -.5750

MACH ( 3 ) = 3.512 BETAT ( 7 ) = 8.840 X/LB 1.039  
PHI .000 -.5680  
40.000 -.5880

DATE 18 SEP 73

## TABULATED PRESSURE DATA - IASC

PAGE 692

AVES 87-757 IAS ORA + S3 + T9 BODY FLAP

GROMF14) ( 1D MAY 73 )

## REFERENCE DATA

SWEP = 2.481D 50.FT. XGRP = 28.5355D INCHES  
 LYEP = 39.8495D INCHES YGRP = .166D INCHES  
 SREP = 39.8495D INCHES ZGRP = .166D INCHES  
 SCALE = .1595D SCALE

## PARAMETRIC DATA

ALPHAT = 4.555D CPBINC = .955D  
 RUDDER = -15.555D ELEVEN = .165D  
 RUDFLR = .555D

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.41D	X/LB	PHI
		1.509	
		.500	-.198D
		40.500	-.119D
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -9.29D	X/LB	PHI
		1.509	
		.500	-.194D
		40.500	-.129D
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.18D	X/LB	PHI
		1.509	
		.500	-.146D
		40.500	-.133D
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .58D	X/LB	PHI
		1.509	
		.500	-.563D
		40.500	-.571D
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.31D	X/LB	PHI
		1.509	
		.500	-.563D
		40.500	-.576D
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 8.43D	X/LB	PHI
		1.509	
		.500	-.592D
		40.500	-.597D
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.58D	X/LB	PHI
		1.509	
		.500	-.113D
		40.500	-.154D
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.58D	X/LB	PHI
		1.509	
		.500	-.146D
		40.500	-.179D

DATE 18 SEP 73  
 TABULATED PRESSURE DATA - IASC  
 AVES 07-757 1A9 02A + S3 + T9 BODY FLAP  
 (92NF14)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -5.415	X/LB PHI	1.539
		.500	-.5780
		40.550	-.5895
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.295	X/LB PHI	1.539
		.500	-.5695
		40.550	-.5995
MACH ( 2 ) = 2.999	BETAT ( 4 ) = .585	X/LB PHI	1.539
		.500	-.5715
		40.550	-.5115
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.385	X/LB PHI	1.539
		.500	-.5765
		40.550	-.5675
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.955	X/LB PHI	1.539
		.500	-.5765
		40.550	-.5755
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 8.715	X/LB PHI	1.539
		.500	-.5675
		40.550	-.5795
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.795	X/LB PHI	1.539
		.500	-.5820
		40.550	-.5845
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.535	X/LB PHI	1.539
		.500	-.5785
		40.550	-.5675
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.345	X/LB PHI	1.539
		.500	-.5655
		40.550	-.5795

AMES 97-707 1A9 ORA + S3 + T9 BODY FLAP

(CONF 14)

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 4 ) = .530	X/LB	1.539
		PHI	
		.500	-.5910
		40.500	-.5680
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.490	X/LB	1.539
		PHI	
		.500	-.5580
		40.500	-.5675
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 5.660	X/LB	1.539
		PHI	
		.500	-.5690
		40.500	-.5630
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.860	X/LB	1.539
		PHI	
		.500	-.5790
		40.500	-.5740

AMES 87-757 1A9 OEA + S3 + T9 BODY FLAP

102NF15) ( 10 MAY 73 )

## REFERENCE DATA

SPDF = 2.4215 30.FT. MPFB = 26.5350 INCHES  
 LPPF = 39.8490 INCHES YMPF = .1660 INCHES  
 BPPF = 39.8490 INCHES ZMPF = .1660 INCHES  
 SCALE = .0370 SCALE

## PARAMETRIC DATA

ALPHA = 5.110 OPBINC = .500  
 BUZZE = -.5100 ELEVON = .000  
 BUZZE = .000

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -9.390

X/LB 1.039  
 PHI .000  
 .000 -1.000  
 0.0000 -1.1170

MACH ( 2 ) = 2.498 BETAT ( 2 ) = -8.280

X/LB 1.039  
 PHI .000  
 .000 -1.075  
 0.0000 -1.1280

MACH ( 3 ) = 2.498 BETAT ( 3 ) = -4.180

X/LB 1.039  
 PHI .000  
 .000 -1.060  
 0.0000 -1.1320

MACH ( 4 ) = 2.498 BETAT ( 4 ) = .580

X/LB 1.039  
 PHI .000  
 .000 -1.0920  
 0.0000 -1.0880

MACH ( 5 ) = 2.498 BETAT ( 5 ) = 4.310

X/LB 1.039  
 PHI .000  
 .000 -1.0995  
 0.0000 -1.0780

MACH ( 6 ) = 2.498 BETAT ( 6 ) = 6.480

X/LB 1.039  
 PHI .000  
 .000 -1.0780  
 0.0000 -1.0830

MACH ( 7 ) = 2.498 BETAT ( 7 ) = 8.570

X/LB 1.039  
 PHI .000  
 .000 -1.0920  
 0.0000 -1.0920

MACH ( 8 ) = 2.998 BETAT ( 8 ) = -8.590

X/LB 1.039  
 PHI .000  
 .000 -1.0920  
 0.0000 -1.0980

AVES 87-757 IAS OBA + S3 + T9 BODY FLAP

(RSMF15)

## SECTION ( 1) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	BETAT ( 2) = -0.400	X/LB	1.039
		PHI	
		.000	-0.0710
		80.000	-0.0890
MACH ( 2) = 2.999	BETAT ( 3) = -0.200	X/LB	1.039
		PHI	
		.000	-0.0650
		80.000	-0.0770
MACH ( 2) = 2.999	BETAT ( 4) = .000	X/LB	1.039
		PHI	
		.000	-0.0550
		80.000	-0.0590
MACH ( 2) = 2.999	BETAT ( 5) = 4.390	X/LB	1.039
		PHI	
		.000	-0.0600
		80.000	-0.0590
MACH ( 2) = 2.999	BETAT ( 6) = 6.570	X/LB	1.039
		PHI	
		.000	-0.0600
		80.000	-0.0680
MACH ( 2) = 2.999	BETAT ( 7) = 8.720	X/LB	1.039
		PHI	
		.000	-0.0610
		80.000	-0.0740
MACH ( 3) = 3.502	BETAT ( 1) = -0.710	X/LB	1.039
		PHI	
		.000	-0.0790
		80.000	-0.0930
MACH ( 3) = 3.502	BETAT ( 2) = -0.920	X/LB	1.039
		PHI	
		.000	-0.0760
		80.000	-0.0800
MACH ( 3) = 3.502	BETAT ( 3) = -4.330	X/LB	1.039
		PHI	
		.000	-0.0670
		80.000	-0.0780



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TABULATED PRESSURE DATA - 1ASC

'59NF15)

AMES 87-757 1A9 ORA + 33 + 79 BODY FLAP

SECTION 1: BODY FLAP DEPENDENT VARIABLE CP

MACH (3) = 3.942	BETA1 (4) = .595	X/LB	3.039
		PH1	
		.000	-1.480
		4.000	-1.090
MACH (3) = 3.942	BETA1 (5) = 4.485	X/LB	3.039
		PH1	
		.000	-1.550
		4.000	-1.522
MACH (3) = 3.942	BETA1 (6) = 6.985	X/LB	3.039
		PH1	
		.000	-1.580
		4.000	-1.550
MACH (3) = 3.942	BETA1 (7) = 9.885	X/LB	3.039
		PH1	
		.000	-1.680
		4.000	-1.570

AMES 87-737 1A9 02A + S3 + T9 BODY FLAP

REFNO16 / 15 MAY 73 /

## REFERENCE DATA

SREF = 2.4210 50.87. 00RP = 28.5350 INCHES  
 LREF = 39.8490 INCHES YMRP = .1100 INCHES  
 SREF = 39.8490 INCHES ZMRP = .1100 INCHES  
 SCALE = .1000 SCALE

## PARAMETRIC DATA

ALPHAT = 0.1000 OFBINC = .9000  
 BUDGER = -55.1000 ELEVON = .1000  
 TUDLER = .1000

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -0.375	X/LB	1.509
		PHI	
		.100	-1.6850
		40.100	-1.1200
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -0.275	X/LB	1.509
		PHI	
		.100	-1.6850
		40.100	-1.1200
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -0.180	X/LB	1.509
		PHI	
		.100	-1.4920
		40.100	-1.1170
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .100	X/LB	1.509
		PHI	
		.100	-1.5570
		40.100	-1.0890
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 0.330	X/LB	1.509
		PHI	
		.100	-1.4800
		40.100	-1.0800
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 0.480	X/LB	1.509
		PHI	
		.100	-1.5750
		40.100	-1.0700
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 0.600	X/LB	1.509
		PHI	
		.100	-1.5710
		40.100	-1.0650
MACH ( 2 ) = 2.998	BETAT ( 1 ) = -0.530	X/LB	1.509
		PHI	
		.100	-1.5790
		40.100	-1.0750

AVES 87-757 IA9 O2A + S3 + T9 BODY FLAP

(SBNF16)

SECTION ( 1 )	BODY FLAP	DEPENDENT VARIABLE	CP
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -0.380	X/LB	1.139
		PHI	
		.500	-.5690
		40.1440	-.5880
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.230	X/LB	1.139
		PHI	
		.500	-.5570
		40.1440	-.5970
MACH ( 2 ) = 2.999	BETAT ( 4 ) = .580	X/LB	1.139
		PHI	
		.500	-.5310
		40.1440	-.5870
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.400	X/LB	1.139
		PHI	
		.500	-.5900
		40.1440	-.5490
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.580	X/LB	1.139
		PHI	
		.500	-.5570
		40.1440	-.5880
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 8.750	X/LB	1.139
		PHI	
		.500	-.5740
		40.1440	-.5720
MACH ( 3 ) = 3.342	BETAT ( 1 ) = -0.680	X/LB	1.139
		PHI	
		.500	-.5780
		40.1440	-.5530
MACH ( 3 ) = 3.342	BETAT ( 2 ) = -0.300	X/LB	1.139
		PHI	
		.500	-.5690
		40.1440	-.5620
MACH ( 3 ) = 3.342	BETAT ( 3 ) = -4.320	X/LB	1.139
		PHI	
		.500	-.5470
		40.1440	-.5710

AMES 87-737 IAS OCA + S3 + T9 BODY FLAP

(RBNF16)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.5/2	BETAT ( 4 ) = .090	X/LB	1.039
		PHI	
		.000	-.0360
		40.000	-.0785
MACH ( 3 ) = 3.5/2	BETAT ( 5 ) = 4.470	X/LB	1.039
		PHI	
		.000	-.0900
		40.000	-.1575
MACH ( 3 ) = 3.5/2	BETAT ( 6 ) = 6.680	X/LB	1.039
		PHI	
		.000	-.0510
		40.000	-.0695
MACH ( 3 ) = 3.5/2	BETAT ( 7 ) = 8.930	X/LB	1.039
		PHI	
		.000	-.0730
		40.000	-.1690

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TABULATED PRESSURE DATA - IA9C

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(RBNF17) ( 10 MAY 73 )

AMES 87-757 IA9 OEA + S3 + T9 BODY FLAP

## REFERENCE DATA

SREF = 2.4210 39. FT. XMRP = 28.5300 INCHES  
 LREF = 39.8495 INCHES YMRP = .0000 INCHES  
 BREF = 39.8495 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA<sub>T</sub> = -8.0000 ORBINC = .5000  
 RUDDER = -10.0000 ELEVON = .0000  
 RUOFLR = .0000

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.390	X/LB	1.039
		PHI	
		.000	-.1390
		40.000	-.1300
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.280	X/LB	1.039
		PHI	
		.000	-.1270
		40.000	-.1420
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.160	X/LB	1.039
		PHI	
		.000	-.1200
		40.000	-.1530
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .060	X/LB	1.039
		PHI	
		.000	-.1040
		40.000	-.1490
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.330	X/LB	1.039
		PHI	
		.000	-.1170
		40.000	-.1060
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.470	X/LB	1.039
		PHI	
		.000	-.1240
		40.000	-.1090
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.600	X/LB	1.039
		PHI	
		.000	-.1340
		40.000	-.1320
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.540	X/LB	1.039
		PHI	
		.000	-.1070
		40.000	-.1490

AMES 87-707 1A9 OCA + S3 + T9 BODY FLAP

(RBNF17)

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.240	X/LB	1.039
		PHI	
		.500	-.1030
		40.000	-.0990
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	X/LB	1.039
		PHI	
		.000	-.0970
		40.000	-.1120
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.410	X/LB	1.039
		PHI	
		.000	-.1050
		40.000	-.1220
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 6.760	X/LB	1.039
		PHI	
		.000	-.1190
		40.000	-.1440
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.700	X/LB	1.039
		PHI	
		.000	-.0780
		40.000	-.0890
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.510	X/LB	1.039
		PHI	
		.000	-.0800
		40.000	-.0570
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.320	X/LB	1.039
		PHI	
		.000	-.0770
		40.000	-.0710
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .000	X/LB	1.039
		PHI	
		.000	-.0790
		40.000	-.0800
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.490	X/LB	1.039
		PHI	
		.000	-.0770
		40.000	-.0910

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TABULATED PRESSURE DATA - IA9C

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AMES 87-707 IA9 C2A + S3 + T9 BODY FLAP

(RBNF17)

SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.700	X/LB	1.039
		PHI	
		.000	-.0820
		40.000	-.0870
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.910	X/LB	1.039
		PHI	
		.000	-.0850
		40.000	-.0820

AMES 87-707 I49 ORA + S3 + T9 BODY FLAP

(RBANF18) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 26.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 PREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = -4.0000 ORBINC = .5000  
 RUDDER = -2.0000 ELEVON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.420	X/LB	PHI	1.039
		.0000		-0.1270
		40.0000		-0.1240
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	X/LB	PHI	1.039
		.0000		-0.1190
		40.0000		-0.1360
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.180	X/LB	PHI	1.039
		.0000		-0.1210
		40.0000		-0.1530
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .060	X/LB	PHI	1.039
		.0000		-0.0890
		40.0000		-0.1170
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.310	X/LB	PHI	1.039
		.0000		-0.1110
		40.0000		-0.0980
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.430	X/LB	PHI	1.039
		.0000		-0.1180
		40.0000		-0.1120
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.560	X/LB	PHI	1.039
		.0000		-0.1240
		40.0000		-0.1260
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -6.580	X/LB	PHI	1.039
		.0000		-0.1120
		40.0000		-0.1840



AVES 87-707 IAS O2A + S3 + T9 BC.Y FLAP

(RENF18)

## SECTION ( 1) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	BETAT ( 2) = -4.260	X/LB	1.039
		PHI	
		.000	-.1020
		40.000	-.1000
MACH ( 2) = 2.999	BETAT ( 3) = .060	X/LB	1.039
		PHI	
		.000	-.0970
		40.000	-.1160
MACH ( 2) = 2.999	BETAT ( 4) = 4.390	X/LB	1.039
		PHI	
		.000	-.1090
		40.000	-.0960
MACH ( 2) = 2.999	BETAT ( 5) = 6.720	X/LB	1.039
		PHI	
		.000	-.1020
		40.000	-.0900
MACH ( 3) = 3.502	BETAT ( 1) = -6.730	X/LB	1.039
		PHI	
		.000	-.0830
		40.000	-.0490
MACH ( 3) = 3.502	BETAT ( 2) = -6.530	X/LB	1.039
		PHI	
		.000	-.0840
		40.000	-.0640
MACH ( 3) = 3.502	BETAT ( 3) = -4.330	X/LB	1.039
		PHI	
		.000	-.0780
		40.000	-.0730
MACH ( 3) = 3.502	BETAT ( 4) = .060	X/LB	1.039
		PHI	
		.000	-.0740
		40.000	-.0860
MACH ( 3) = 3.502	BETAT ( 5) = 4.470	X/LB	1.039
		PHI	
		.000	-.0780
		40.000	-.0890

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TABLATED PRESSURE DATA - IASC

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ANES 87-707 IAS ORA + S3 + T9 BODY FLAP

(RBNF18)

SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.302	BETAT ( 6 ) = 8.670	X/LB	1.039
		PHI	
		.000	-.0670
		40.000	-.0670
MACH ( 3 ) = 3.302	BETAT ( 7 ) = 8.670	X/LB	1.039
		PHI	
		.000	-.0670
		40.000	-.0720

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TABULATED PRESSURE DATA - 1A9C  
AVES 87-707 1A9 ORA + S3 + T9 BODY FLAP

(RBNF19) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 26.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHA = .0000 ORBINC = .5000  
 RUDEF = -.0000 ELEVON = .0000  
 RUDEF\_F = .0000

SECTION ( 1 ) BODY FLAP		DEPENDENT VARIABLE CP	
MACH ( 1 ) = 2.499	BETAT ( 1 ) = -6.430	X/LB 1.039	PHI
		.000	-.1230
		40.000	-.1220
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.310	X/LB 1.039	PHI
		.000	-.1030
		40.000	-.1370
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.180	X/LB 1.039	PHI
		.000	-.0960
		40.000	-.1480
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .080	X/LB 1.039	PHI
		.000	-.0820
		40.000	-.1090
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.300	X/LB 1.039	PHI
		.000	-.1060
		40.000	-.0870
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.430	X/LB 1.039	PHI
		.000	-.1110
		40.000	-.1060
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 6.330	X/LB 1.039	PHI
		.000	-.1160
		40.000	-.1090
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -6.580	X/LB 1.039	PHI
		.000	-.0950
		40.000	-.1060

AXES 07-707 IAS ORA + S3 + T9 BODY FLAP

(RBMF19)

SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.280	X/LB	1.039
		PHI	
		.000	-.0770
		40.000	-.0990
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .080	X/LB	1.039
		PHI	
		.000	-.0880
		40.000	-.1150
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.380	X/LB	1.039
		PHI	
		.000	-.0800
		40.000	-.0770
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 8.710	X/LB	1.039
		PHI	
		.000	-.0970
		40.000	-.0830
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.740	X/LB	1.039
		PHI	
		.000	-.0790
		40.000	-.0510
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -8.540	X/LB	1.039
		PHI	
		.000	-.0790
		40.000	-.0610
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.340	X/LB	1.039
		PHI	
		.000	-.0660
		40.000	-.0740
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .080	X/LB	1.039
		PHI	
		.000	-.0650
		40.000	-.0860
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.460	X/LB	1.039
		PHI	
		.000	-.0750
		40.000	-.0700

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TABULATED PRESSURE DATA - IA9C

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AMES 87-707 IA9 O2A + S3 + T9 BODY FLAP

(RBWF19)

SECTION ( 1 ) BODY FLAP

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.902 BETAT ( 6 ) = 6.660 X/LB 1.039  
PHI  
.0000 -.0680  
40.0000 -.0680

MACH ( 3 ) = 3.902 BETAT ( 7 ) = 6.660 X/LB 1.039  
PHI  
.0000 -.0660  
40.0000 -.0680

AXES 67-707 IAS OEA + S3 + T9 BODY FLAP

REFNO) ( 10 MAY 75 )

## REFERENCE DATA

SWP = 2.4210 96.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .1000 INCHES  
 WREF = 39.8490 INCHES ZMRP = .1000 INCHES  
 SCALE = .1000 SCALE

## PARAMETRIC DATA

ALPHA = .000 ORBINC = .500  
 RUZZER = .000 ELEVON = .000  
 RUDDER = .00

## SECTION ( 1 ) BODY FLAP

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.410	X/LB	1.039
		PHI	
		.000	-.1010
		40.000	-.1210
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.250	X/LB	1.039
		PHI	
		.000	-.0920
		40.000	-.1250
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.170	X/LB	1.039
		PHI	
		.000	-.0770
		40.000	-.1320
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .580	X/LB	1.039
		PHI	
		.000	-.0580
		40.000	-.0690
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.310	X/LB	1.039
		PHI	
		.000	-.0770
		40.000	-.0740
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.430	X/LB	1.039
		PHI	
		.000	-.0970
		40.000	-.0930
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.560	X/LB	1.039
		PHI	
		.000	-.1070
		40.000	-.1120
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.970	X/LB	1.039
		PHI	
		.000	-.0930
		40.000	-.0780

AMES 87-707 IAS O2A + S3 + T9 BODY FLAP

(R08NF20)

SECTION ( 1 ) BODY FLAP	DEPENDENT VARIABLE CP
MACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.250	X/LB 1.039 PHI .000 40.000 -0.0730 40.000 -0.1030
MACH ( 2 ) = 2.999 BETAT ( 3 ) = .060	X/LB 1.039 PHI .000 40.000 -0.0730 40.000 -0.1150
MACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.350	X/LB 1.039 PHI .000 40.000 -0.0770 40.000 -0.5670
MACH ( 2 ) = 2.999 BETAT ( 5 ) = 8.720	X/LB 1.039 PHI .000 40.000 -0.0910 40.000 -0.5870
MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.720	X/LB 1.039 PHI .000 40.000 -0.0770 40.000 -0.5510
MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.530	X/LB 1.039 PHI .000 40.000 -0.0730 40.000 -0.5630
MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330	X/LB 1.039 PHI .000 40.000 -0.1670 40.000 -0.5730
MACH ( 3 ) = 3.502 BETAT ( 4 ) = .060	X/LB 1.039 PHI .000 40.000 -0.0540 40.000 -0.1850
MACH ( 3 ) = 3.502 BETAT ( 5 ) = 4.460	X/LB 1.039 PHI .000 40.000 -0.0730 40.000 -0.0710

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TABULATED PRESSURE DATA - IASC

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AVES 87-707 IAS OEA + S3 + T9 BODY FLAP

(REMPED)

SECTION ( 3 ) BODY FLAP

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 0.070

X/LB	1.039
PHI	
.000	-.0760
40.000	-.0590

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 0.070

X/LB	1.039
PHI	
.000	-.0610
40.000	-.0750



AMES 87-707 IA9 OEA + S3 + T9 BODY FLAP

(RBNP21) ( 10 MAY 75 )

## REFERENCE DATA

SREF = 2.4210 SQ. FT. XMRP = 20.5300 INCHES  
 LREF = 39.6490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ORBINC = .500  
 RUDDER = -0.000 ELEVON = .000  
 RUDFLR = .000

## SECTION ( 1 ) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.390	X/LB	1.039
		PHI	
		.000	-.0670
		40.000	-.1200
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.280	X/LB	1.039
		PHI	
		.000	-.0780
		40.000	-.1270
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.170	X/LB	1.039
		PHI	
		.000	-.0650
		40.000	-.1330
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .060	X/LB	1.039
		PHI	
		.000	-.0540
		40.000	-.0700
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.310	X/LB	1.039
		PHI	
		.000	-.0690
		40.000	-.0770
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.440	X/LB	1.039
		PHI	
		.000	-.0610
		40.000	-.0660
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.570	X/LB	1.039
		PHI	
		.000	-.0610
		40.000	-.0620
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.530	X/LB	1.039
		PHI	
		.000	-.0690
		40.000	-.0740

AMES 87-707 1A9 OBA + S3 + T9 BODY FLAP

(R0M7E1)

SECTION ( 1 )	BODY FLAP	DEPENDENT VARIABLE	CP
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -0.240	X/LB	1.039
		PHI	
		.000	-0.0650
		40.000	-0.1010
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .580	X/LB	1.039
		PHI	
		.000	-0.0580
		40.000	-0.1120
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.400	X/LB	1.039
		PHI	
		.000	-0.0610
		40.000	-0.0970
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 6.730	X/LB	1.039
		PHI	
		.000	-0.0630
		40.000	-0.0760
MACH ( 3 ) = 3.562	BETAT ( 1 ) = -6.710	X/LB	1.039
		PHI	
		.000	-0.0790
		40.000	-0.0470
MACH ( 3 ) = 3.562	BETAT ( 2 ) = -6.510	X/LB	1.039
		PHI	
		.000	-0.0710
		40.000	-0.0580
MACH ( 3 ) = 3.562	BETAT ( 3 ) = -4.320	X/LB	1.039
		PHI	
		.000	-0.0330
		40.000	-0.0690
MACH ( 3 ) = 3.562	BETAT ( 4 ) = .580	X/LB	1.039
		PHI	
		.000	-0.0440
		40.000	-0.0820
MACH ( 3 ) = 3.562	BETAT ( 5 ) = 4.470	X/LB	1.039
		PHI	
		.000	-0.0620
		40.000	-0.0530

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TABULATED PRESSURE DATA - IA9C

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AMES 67-707 IA9 ORA + S3 + T9 BODY FLAP

(RBNF21)

SECTION ( 1 ) BODY FLAP

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.562 BETAT ( 6 ) = 6.670

X/LB 1.039

PHI

.000 -0.0700

40.000 -0.0540

MACH ( 3 ) = 3.562 BETAT ( 7 ) = 6.690

X/LB 1.039

PHI

.000 -0.0770

40.000 -0.0660

AMES 07-707 1A9 02A + S3 + T9 BODY FLAP

(RSMF22) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 50. FT.    X/NP = 29.5350 INCHES  
 LREF = 39.8490 INCHES    Y/NP = .5000 INCHES  
 BREF = 39.8490 INCHES    Z/NP = .5000 INCHES  
 SCALE = .0350 SCALE

ALPHAT = 3.0000    ORBINC = .5000  
 RUDDER = -10.0000    ELEVON = .5000  
 RUDDER = .5000

## PARAMETRIC DATA

## SECTION ( 1 ) BODY FLAP      DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -0.370	X/LB	1.039
		PHI	
		.000	-.0680
		40.000	-.1230
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -0.280	X/LB	1.039
		PHI	
		.000	-.0690
		40.000	-.1330
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.150	X/LB	1.039
		PHI	
		.000	-.0520
		40.000	-.1170
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .060	X/LB	1.039
		PHI	
		.000	-.0410
		40.000	-.1690
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.330	X/LB	1.039
		PHI	
		.000	-.0470
		40.000	-.1640
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.460	X/LB	1.039
		PHI	
		.000	-.0650
		40.000	-.0730
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 0.600	X/LB	1.039
		PHI	
		.000	-.0680
		40.000	-.0850
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -0.530	X/LB	1.039
		PHI	
		.000	-.0800
		40.000	-.0770

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 AWES 07-707 IAS OEA + S3 + T9 BODY FLAP (RBNF22)

SECTION ( 1) BODY FLAP DEPENDENT VARIABLE CP

MACH ( 2) = 2.999 BETAT ( 2) = -4.230  
 X/LB 1.039  
 PHI .000 -.0550  
 40.000 -.0950

MACH ( 2) = 2.999 BETAT ( 3) = .060  
 X/LB 1.039  
 PHI .000 -.0370  
 40.000 -.0890

MACH ( 2) = 2.999 BETAT ( 4) = 4.400  
 X/LB 1.039  
 PHI .000 -.0520  
 40.000 -.0520

MACH ( 2) = 2.999 BETAT ( 5) = 8.750  
 X/LB 1.039  
 PHI .000 -.0750  
 40.000 -.0750

MACH ( 3) = 3.502 BETAT ( 1) = -8.680  
 X/LB 1.039  
 PHI .000 -.0710  
 40.000 -.0490

MACH ( 3) = 3.502 BETAT ( 2) = -6.490  
 X/LB 1.039  
 PHI .000 -.0610  
 40.000 -.0570

MACH ( 3) = 3.502 BETAT ( 3) = -4.310  
 X/LB 1.039  
 PHI .000 -.0440  
 40.000 -.0670

MACH ( 3) = 3.502 BETAT ( 4) = .060  
 X/LB 1.039  
 PHI .000 -.0320  
 40.000 -.0790

MACH ( 3) = 3.502 BETAT ( 5) = 4.480  
 X/LB 1.039  
 PHI .000 -.0450  
 40.000 -.0520

AXES 87-707 IAS OBA + S3 + T9 BODY FLAP

(RBNF22)

SECTION ( 1 ) BODY FLAP

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.562 BETAT ( 6 ) = 6.750

X/LB 1.039

PHI

.0000 -.0900

40.0000 -.0440

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.910

X/LB 1.039

PHI

.0000 -.0710

40.0000 -.0630

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

AVES 87-707 1A9 02A + S3 + T9 OMS POD OUTSIDE

(IRRMUS) ( 10 MAY 75 )

REFERENCE DATA

SREF = 2.4210 96.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 E-REF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0310 SCALE

PARAMETRIC DATA

BETA = .000 ORBINC = .500  
 RUDDET = .000 ELEVON = .000  
 RUDFLF = .000

SECTION ( 1 ) OMS POD OUTSIDE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	ALPHAT( 1 ) = -6.100	X/LB	PHI	1.001
		110.000	.0710	
		120.000	.0610	
MACH ( 1 ) = 2.498	ALPHAT( 2 ) = -6.070	X/LB	PHI	1.001
		110.000	.0770	
		120.000	.0670	
MACH ( 1 ) = 2.498	ALPHAT( 3 ) = -4.000	X/LB	PHI	1.001
		110.000	.0700	
		120.000	-.0620	
MACH ( 1 ) = 2.498	ALPHAT( 4 ) = -2.500	X/LB	PHI	1.001
		110.000	-.0490	
		120.000	-.0160	
MACH ( 1 ) = 2.498	ALPHAT( 5 ) = .000	X/LB	PHI	1.001
		110.000	-.0170	
		120.000	-.0290	
MACH ( 1 ) = 2.498	ALPHAT( 6 ) = 1.900	X/LB	PHI	1.001
		110.000	-.0660	
		120.000	-.0460	
MACH ( 1 ) = 2.498	ALPHAT( 7 ) = 3.900	X/LB	PHI	1.001
		110.000	-.0760	
		120.000	-.0520	
MACH ( 1 ) = 2.498	ALPHAT( 8 ) = 5.900	X/LB	PHI	1.001
		110.000	-.0820	
		120.000	-.0600	

AMES 07-707 IAS OSA + S3 + T9 OMS POG OUTSIDE

(MMBLS1)

## SECTION ( 1 ) OMS POG OUTSIDE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	ALPHAT( 9 ) = 0.010	X/LB	1.001
		PHI	
		110.000	-.5040
		120.000	-.0700
MACH ( 2 ) = 2.999	ALPHAT( 1 ) = -0.070	X/LB	1.001
		PHI	
		110.000	.0224
		120.000	.0490
MACH ( 2 ) = 2.999	ALPHAT( 2 ) = -0.150	X/LB	1.001
		PHI	
		110.000	.0070
		120.000	.0270
MACH ( 2 ) = 2.999	ALPHAT( 3 ) = -4.070	X/LB	1.001
		PHI	
		110.000	-.0450
		120.000	.0100
MACH ( 2 ) = 2.999	ALPHAT( 4 ) = -2.000	X/LB	1.001
		PHI	
		110.000	-.0240
		120.000	-.0500
MACH ( 2 ) = 2.999	ALPHAT( 5 ) = -.010	X/LB	1.001
		PHI	
		110.000	.0040
		120.000	-.0210
MACH ( 2 ) = 2.999	ALPHAT( 6 ) = 1.950	X/LB	1.001
		PHI	
		110.000	-.0380
		120.000	-.0280
MACH ( 2 ) = 2.999	ALPHAT( 7 ) = 3.960	X/LB	1.001
		PHI	
		110.000	-.0480
		120.000	-.0330
MACH ( 2 ) = 2.999	ALPHAT( 8 ) = 5.990	X/LB	1.001
		PHI	
		110.000	-.0440
		120.000	-.0410



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TABLULATED PRESSURE DATA - 1A9C  
 AMES 87-707 1A9 02A + S3 + T9 OMS POD OUTSIDE

(REMARKS)

SECTION ( 1 ) OMS POD OUTSIDE  
 DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	ALPHAT( 9 ) = 0.000	X/LB	PHI
		1.001	
		110.000	-.0430
		120.000	-.0460
MACH ( 3 ) = 3.502	ALPHAT( 1 ) = -8.080	X/LB	PHI
		1.001	
		110.000	.0330
		120.000	.0380
MACH ( 3 ) = 3.502	ALPHAT( 2 ) = -6.080	X/LB	PHI
		1.001	
		110.000	.0060
		120.000	.0130
MACH ( 3 ) = 3.502	ALPHAT( 3 ) = -4.070	X/LB	PHI
		1.001	
		110.000	-.0130
		120.000	-.0230
MACH ( 3 ) = 3.502	ALPHAT( 4 ) = -2.020	X/LB	PHI
		1.001	
		110.000	-.0160
		120.000	-.0310
MACH ( 3 ) = 3.502	ALPHAT( 5 ) = -.030	X/LB	PHI
		1.001	
		110.000	-.0280
		120.000	-.0290
MACH ( 3 ) = 3.502	ALPHAT( 6 ) = 1.950	X/LB	PHI
		1.001	
		110.000	-.0400
		120.000	-.0320
MACH ( 3 ) = 3.502	ALPHAT( 7 ) = 3.960	X/LB	PHI
		1.001	
		110.000	-.0140
		120.000	-.0350
MACH ( 3 ) = 3.502	ALPHAT( 8 ) = 5.970	X/LB	PHI
		1.001	
		110.000	-.0270
		120.000	-.0460

AMES 67-707 IA9 O2A + S3 + T9 OMS FOD OUTSIDE

(RBNR.1)

SECTION ( 1) OMS FOD OUTSIDE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.932 ALPHAT( 9 ) = 0.010

X/LB 1.501

PHI

110.5000 -0.0000

120.0000 -0.0010

TABULATED PRESSURE DATA - IASC

DATE 18 SEP 73

(REMARKS) ( 10 MAY 73 )

AMES 97-707 1A9 OEA + S3 + T9 OMS FOD OUTSIDE

GEOMETRIC DATA

ALPHA = -3.0000 ORBINC = .9640  
RUDGER = .0000 ELEVON = .0000  
RUDFLR = .0000

REFERENCE DATA

SREF = 2.4210 96.FT. XWRP = 28.5363 INCHES  
LREF = 39.8490 INCHES YWRP = .0000 INCHES  
BREF = 39.8490 INCHES ZWRP = .0000 INCHES  
SCALE = .0000 SCALE

SECTION 1 ( 1 ) OMS FOD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.4600 X/LS 1.000  
PHI 110.000 .0760  
120.000 .0910

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.2800 X/LS 1.000  
PHI 110.000 .0540  
120.000 .0720

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.1700 X/LS 1.000  
PHI 110.000 .1130  
120.000 .0600

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.0800 X/LS 1.000  
PHI 110.000 .1020  
120.000 .0560

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.1800 X/LS 1.000  
PHI 110.000 -.0010  
120.000 .0930

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.3200 X/LS 1.000  
PHI 110.000 -.0060  
120.000 .0060

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.4600 X/LS 1.000  
PHI 110.000 -.0090  
120.000 -.0300

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.5900 X/LS 1.000  
PHI 110.000 -.0360  
120.000 -.0560

AMES 87-707 IAS OEA + SS + T9 OMS POD OUTSIDE

(RANGE2)

SECTION ( 1) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2) = 2.999 BETAT ( 1) = -0.560

X/LB	1.001
PHI	
110.000	.1070
120.000	.1250

MACH ( 2) = 2.999 BETAT ( 2) = -0.400

X/LB	1.001
PHI	
110.000	.0750
120.000	.1030

MACH ( 2) = 2.999 BETAT ( 3) = -4.250

X/LB	1.001
PHI	
110.000	.0950
120.000	.0800

MACH ( 2) = 2.999 BETAT ( 4) = -2.110

X/LB	1.001
PHI	
110.000	.0400
120.000	.0630

MACH ( 2) = 2.999 BETAT ( 5) = 2.250

X/LB	1.001
PHI	
110.000	.0150
120.000	.0320

MACH ( 2) = 2.999 BETAT ( 6) = 4.400

X/LB	1.001
PHI	
110.000	.0250
120.000	.0130

MACH ( 2) = 2.999 BETAT ( 7) = 0.560

X/LB	1.001
PHI	
110.000	.0150
120.000	-.0150

MACH ( 2) = 2.999 BETAT ( 8) = 0.750

X/LB	1.001
PHI	
110.000	-.0040
120.000	-.0330

MACH ( 3) = 3.512 BETAT ( 1) = -0.710

X/LB	1.001
PHI	
110.000	.1350
120.000	.1650

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

AVES 07-707 1A9 02A + S3 + T9 OMS POD OUTSIDE

(R08N62)

DEPENDENT VARIABLE CP

SECTION ( 1 ) OMS POD OUTSIDE

MACH ( 3 ) = 3.542	BETAT ( 2 ) = -6.320	X/LB	PHI	1.001
		110.000	.1140	
		120.000	.1070	
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.330	X/LB	PHI	1.001
		110.000	.0930	
		120.000	.0810	
MACH ( 3 ) = 3.542	BETAT ( 4 ) = -2.140	X/LB	PHI	1.001
		110.000	.0680	
		120.000	.0560	
MACH ( 3 ) = 3.542	BETAT ( 5 ) = 2.260	X/LB	PHI	1.001
		110.000	.0030	
		120.000	.0230	
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.480	X/LB	PHI	1.001
		110.000	.0430	
		120.000	.0310	
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.680	X/LB	PHI	1.001
		110.000	.0070	
		120.000	-.0060	
MACH ( 3 ) = 3.502	BETAT ( 8 ) = 8.910	X/LB	PHI	1.001
		110.000	-.0160	
		120.000	-.0390	

AMES 87-707 IAS OEA + S3 + T9 OMS POD OUTSIDE

REFERENCE DATA

SREF = 2.4210 59.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = .0000 ORBINC = .910  
 RUDDER = .0000 ELEVON = .000  
 RUOFLR = .000

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	X/LB	PHI
		110.000	.0490
		120.000	.0720
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.290	X/LB	PHI
		110.000	.0290
		120.000	.0500
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.130	X/LB	PHI
		110.000	.0190
		120.000	.0370
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	X/LB	PHI
		110.000	.0860
		120.000	.0340
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	X/LB	PHI
		110.000	-.0160
		120.000	.0280
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.310	X/LB	PHI
		110.000	-.0220
		120.000	-.0100
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.440	X/LB	PHI
		110.000	-.0220
		120.000	-.0430
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.570	X/LB	PHI
		110.000	-.0480
		120.000	-.0650

DATE 18 SEP 73 TABULATED PRESSURE DATA - IA9C

AMES 97-707 IA9 O2A + S3 + T9 OMS POD OUTSIDE

(REMOVED)

SECTION : 1) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.570	X/LB	1.001
		PHI	
		110.000	.0900
		120.000	.1000
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.420	X/LB	1.001
		PHI	
		110.000	.0650
		120.000	.0810
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.260	X/LB	1.001
		PHI	
		110.000	.0860
		120.000	.0620
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.100	X/LB	1.001
		PHI	
		110.000	.0620
		120.000	.0450
MACH ( 5 ) = 2.999	BETAT ( 5 ) = 2.220	X/LB	1.001
		PHI	
		110.000	.0260
		120.000	.0190
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.390	X, B	1.001
		PHI	
		110.000	.0370
		120.000	-.0020
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.560	X/LB	1.001
		PHI	
		110.000	.0160
		120.000	-.0310
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.730	X/LB	1.001
		PHI	
		110.000	-.0140
		120.000	-.0360
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.730	X/LB	1.001
		PHI	
		110.000	.1250
		120.000	.1240

AMES 87-707 IAS ORA + S3 + T9 OMS POD OUTSIDE

(RBANKS)

SECTION 1: OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH (3) = 3.502	BETAT (2) = -6.530	X/LB	1.001
		PHI	
		110.000	.0840
		120.000	.0960
MACH (3) = 3.502	BETAT (3) = -4.340	X/LB	1.001
		PHI	
		110.000	.0760
		120.000	.0660
MACH (3) = 3.502	BETAT (4) = -2.140	X/LB	1.001
		PHI	
		110.000	.0580
		120.000	.0380
MACH (3) = 3.502	BETAT (5) = 2.260	X/LB	1.001
		PHI	
		110.000	.0140
		120.000	.0220
MACH (3) = 3.502	BETAT (6) = 4.470	X/LB	1.001
		PHI	
		110.000	.0270
		120.000	-.0210
MACH (3) = 3.502	BETAT (7) = 6.680	X/LB	1.001
		PHI	
		110.000	-.0090
		120.000	-.0280
MACH (3) = 3.502	BETAT (8) = 8.890	X/LB	1.001
		PHI	
		110.000	-.0440
		120.000	-.0960



AVES 07-707 1A9 CRA + S3 + 79 OMS POD OUTSIDE

(RBNW04) ( 1D MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 20.3300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .03 SCALE

PARAMETRIC DATA

ALPHAT = -4.0000 ORBINC = .900  
 RUDDER = .0000 ELEVON = .000  
 RUDFLR = .0000

SECTION ( 1 ) OMS POD OUTSIDE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -6.430	X/LB	PHI
		110.000	.0240
		120.000	.0490
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.310	X/LB	PHI
		110.000	.0090
		120.000	.0340
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -6.190	X/LB	PHI
		110.000	-.0040
		120.000	.0210
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	X/LB	PHI
		110.000	-.0190
		120.000	.0190
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	X/LB	PHI
		110.000	-.0370
		120.000	-.0120
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.350	X/LB	PHI
		110.000	-.0400
		120.000	-.0260
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.430	X/LB	PHI
		110.000	-.0500
		120.000	-.0590
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.550	X/LB	PHI
		110.000	-.0590
		120.000	-.0740



AMES 87-707 IAS O2A + S3 + T9 OMS POD OUTSIDE

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) =	BETAT ( 1 ) =	X/LB	PHI
2.999	-8.580	1.001	
		110.000	.0710
		120.000	.0810
MACH ( 2 ) =	BETAT ( 2 ) =	X/LB	PHI
2.999	-6.420	1.001	
		110.000	.0460
		120.000	.0610
MACH ( 2 ) =	BETAT ( 3 ) =	X/LB	PHI
2.999	-4.260	1.001	
		110.000	.0250
		120.000	.0410
MACH ( 2 ) =	BETAT ( 4 ) =	X/LB	PHI
2.999	-2.110	1.001	
		110.000	.0470
		120.000	.0220
MACH ( 2 ) =	BETAT ( 5 ) =	X/LB	PHI
2.999	2.210	1.001	
		110.000	-.0210
		120.000	.0410
MACH ( 2 ) =	BETAT ( 6 ) =	X/LB	PHI
2.999	4.380	1.001	
		110.000	-.0260
		120.000	-.0210
MACH ( 2 ) =	BETAT ( 7 ) =	X/LB	PHI
2.999	6.550	1.001	
		110.000	-.0390
		120.000	-.0460
MACH ( 2 ) =	BETAT ( 8 ) =	X/LB	PHI
2.999	8.710	1.001	
		110.000	-.0420
		120.000	-.0580
MACH ( 3 ) =	BETAT ( 1 ) =	X/LB	PHI
3.902	-8.740	1.001	
		110.000	.1010
		120.000	.0980



DATE 10 SEP 73

TABULATED PRESSURE DATA - IASC  
AVES 07-707 IAS OEA + S3 + T9 OMS FOD OUTSIDE

(RBNM04)

SECTION ( 1 ) OMS FOD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.540	X/LB	1.001
		PHI	
		110.000	.0750
		120.000	.0750
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.340	X/LB	1.001
		PHI	
		110.000	.0530
		120.000	.0490
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.150	X/LB	1.001
		PHI	
		110.000	.0440
		120.000	.0250
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	X/LB	1.001
		PHI	
		110.000	-.0620
		120.000	-.0310
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.460	X/LB	1.001
		PHI	
		110.000	-.0070
		120.000	-.0310
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.660	X/LB	1.001
		PHI	
		110.000	-.0040
		120.000	-.0350
MACH ( 3 ) = 3.502	BETAT ( 8 ) = 8.870	X/LB	1.001
		PHI	
		110.000	-.0300
		120.000	-.0420

AMES 87-707 IAS OBA + S3 + T9 OMS POD OUTSIDE

(RBNR05) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .5000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .5000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = -2.0000 CRBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUOFLR = .0000

SECTION ( 1 ) OMS POD OUTSIDE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.430

X/LB 1.001  
 PHI 110.000 .0110  
 120.000 .0310

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.310

X/LB 1.001  
 PHI 110.000 -.0010  
 120.000 .0160

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.190

X/LB 1.001  
 PHI 110.000 -.0180  
 120.000 .0010

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.070

X/LB 1.001  
 PHI 110.000 -.0340  
 120.000 -.0090

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.160

X/LB 1.001  
 PHI 110.000 -.0460  
 120.000 -.0240

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.300

X/LB 1.001  
 PHI 110.000 -.0590  
 120.000 -.0410

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.420

X/LB 1.001  
 PHI 110.000 -.0610  
 120.000 -.0680

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.540

X/LB 1.001  
 PHI 110.000 -.0640  
 120.000 -.0840

AMES 87-707 IAS OSA + S3 + T9 OMS POD OUTSIDE

(RGNWJ5)

## SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.590	X/LB	1.001
		PHI	
		110.000	.0830
		120.000	.0660
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.440	X/LB	1.001
		PHI	
		110.000	.0700
		120.000	.0430
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.270	X/LB	1.001
		PHI	
		110.000	.0570
		120.000	.0280
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.110	X/LB	1.001
		PHI	
		110.000	.0470
		120.000	.0240
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.220	X/LB	1.001
		PHI	
		110.000	-.0330
		120.000	-.0190
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.370	X/LB	1.001
		PHI	
		110.000	-.0130
		120.000	-.0310
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.530	X/LB	1.001
		PHI	
		110.000	-.0230
		120.000	-.0560
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.700	X/LB	1.001
		PHI	
		110.000	-.0290
		120.000	-.0670
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -6.750	X/LB	1.001
		PHI	
		110.000	.0830
		120.000	.0810

AMES 87-707 IAS O2A + S3 + T9 OHS POD OUTSIDE

(RENMUS)

## SECTION ( 1 ) OHS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.512	BETAT ( 2 ) = -6.340	X/LB	1.001
		PHI	
		110.000	.0570
		120.000	.0580
MACH ( 3 ) = 3.512	BETAT ( 3 ) = -4.350	X/LB	1.001
		PHI	
		110.000	.0280
		120.000	.0310
MACH ( 3 ) = 3.512	BETAT ( 4 ) = -2.140	X/LB	1.001
		PHI	
		110.000	.0250
		120.000	.0310
MACH ( 3 ) = 3.512	BETAT ( 5 ) = 2.200	X/LB	1.001
		PHI	
		110.000	-.0220
		120.000	-.0220
MACH ( 3 ) = 3.512	BETAT ( 6 ) = 4.480	X/LB	1.001
		PHI	
		110.000	-.0170
		120.000	-.0400
MACH ( 3 ) = 3.512	BETAT ( 7 ) = 6.660	X/LB	1.001
		PHI	
		110.000	-.0200
		120.000	-.0440
MACH ( 3 ) = 3.512	BETAT ( 8 ) = 8.860	X/LB	1.001
		PHI	
		110.000	-.0260
		120.000	-.0540

ANES 07-707 IA9 OEA + S3 + T9 OMS FOD OUTSIDE

(R08006) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 39. FT. XWRP = 20.3300 INCHES  
 LREF = 39.8490 INCHES YWRP = .0000 INCHES  
 DREF = 39.8490 INCHES ZWRP = .0000 INCHES  
 SCALE = .0300 SCALE

## SECTION ( 1 ) OMS FOD OUTSIDE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.496 BETAT ( 1 ) = -6.430

X/LB	PHI	1.001
110.000	.0000	
120.000	.0190	

MACH ( 1 ) = 2.496 BETAT ( 2 ) = -6.310

X/LB	PHI	1.001
110.000	-.0180	
120.000	.0010	

MACH ( 1 ) = 2.496 BETAT ( 3 ) = -4.190

X/LB	PHI	1.001
110.000	-.0330	
120.000	-.0130	

MACH ( 1 ) = 2.496 BETAT ( 4 ) = -2.070

X/LB	PHI	1.001
110.000	-.0460	
120.000	-.0210	

MACH ( 1 ) = 2.496 BETAT ( 5 ) = 2.170

X/LB	PHI	1.001
110.000	-.0960	
120.000	-.0340	

MACH ( 1 ) = 2.496 BETAT ( 6 ) = 4.290

X/LB	PHI	1.001
110.000	-.0680	
120.000	-.0510	

MACH ( 1 ) = 2.496 BETAT ( 7 ) = 6.410

X/LB	PHI	1.001
110.000	-.0800	
120.000	-.0770	

MACH ( 1 ) = 2.496 BETAT ( 8 ) = 8.540

X/LB	PHI	1.001
110.000	-.1020	
120.000	-.0990	

## PARAMETRIC DATA

ALPHA = .500  
 RUDDER = .000  
 RUDDLR = .000  
 ORBINC = .500  
 ELEVON = .000

AMES 37-737 LAB CEA + S3 + T9 CMS POD OUTSIDE

(RBIND6)

SECTION ( 1) CMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	BETAT ( 1) = -8.990	X/LB	1.001
		PHI	
		110.000	.0920
		120.000	.0410
MACH ( 2) = 2.999	BETAT ( 2) = -6.430	X/LB	1.001
		PHI	
		110.000	.0640
		120.000	.0270
MACH ( 2) = 2.999	BETAT ( 3) = -4.270	X/LB	1.001
		PHI	
		110.000	.0370
		120.000	.0100
MACH ( 2) = 2.999	BETAT ( 4) = -2.110	X/LB	1.001
		PHI	
		110.000	.0230
		120.000	-.0060
MACH ( 2) = 2.999	BETAT ( 5) = 2.210	X/LB	1.001
		PHI	
		110.000	.0330
		120.000	-.0230
MACH ( 2) = 2.999	BETAT ( 6) = 4.370	X/LB	1.001
		PHI	
		110.000	.0000
		120.000	-.0480
MACH ( 2) = 2.999	BETAT ( 7) = 6.530	X/LB	1.001
		PHI	
		110.000	-.0320
		120.000	-.0660
MACH ( 2) = 2.999	BETAT ( 8) = 8.690	X/LB	1.001
		PHI	
		110.000	-.0460
		120.000	-.0730
MACH ( 3) = 3.502	BETAT ( 1) = -8.750	X/LB	1.001
		PHI	
		110.000	.0710
		120.000	.0670



DATE 18 SEP 75

TABULATED PRESSURE DATA - IASC

AMES 87-707 IAS O2A + S3 + T9 OMS PCO OUTSIDE

(REMARKS)

SECTION ( 1 ) OMS PCO OUTSIDE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.550

X/LB	1.001
PHI	
110.000	.0460
120.000	.0420

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.340

X/LB	1.001
PHI	
110.000	.0210
120.000	.0160

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.150

X/LB	1.001
PHI	
110.000	.0070
120.000	-.0020

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260

X/LB	1.001
PHI	
110.000	.0000
120.000	-.0050

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.450

X/LB	1.001
PHI	
110.000	-.0560
120.000	-.0320

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.650

X/LB	1.001
PHI	
110.000	-.0640
120.000	-.0610

MACH ( 3 ) = 3.502 BETAT ( 8 ) = 8.650

X/LB	1.001
PHI	
110.000	-.0590
120.000	-.0640

AMES 87-707 IAS OSA + S3 + T9 OMS POD OUTSIDE

(RNNND7) ( 10 MAY 75 )

REFERENCE DATA

SREF = 2.4210 96.FT. XWRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YWRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZWRP = .0000 INCHES  
 SCALE = .0350 SCALE

PARAMETRIC DATA

ALPHAT = 2.500 ORBINC = .500  
 RUDDER = .040 ELEVON = .150  
 RUDFLR = .020

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -8.430 X/LB 1.001  
 PHI  
 110.000 -.0030  
 120.000 .0040

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.310 X/LB 1.001  
 PHI  
 110.000 -.0260  
 120.000 -.0100

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.190 X/LB 1.001  
 PHI  
 110.000 -.0430  
 120.000 -.0290

MACH ( 1 ) = 2.498 BETAT ( 4 ) = -2.060 X/LB 1.001  
 PHI  
 110.000 -.0550  
 120.000 -.0330

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 2.170 X/LB 1.001  
 PHI  
 110.000 -.0670  
 120.000 -.0410

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 4.290 X/LB 1.001  
 PHI  
 110.000 -.0740  
 120.000 -.0580

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 6.410 X/LB 1.001  
 PHI  
 110.000 -.0860  
 120.000 -.0810

MACH ( 1 ) = 2.498 BETAT ( 8 ) = 8.540 X/LB 1.001  
 PHI  
 110.000 -.1010  
 120.000 -.0970

AMES 87-707 1A9 OEA + S3 + T9 OMS FOD OUTSIDE

(R08M07)

## SECTION ( 1 ) OMS FOD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -0.590	X/LB	1.001
		PHI	
		110.000	.0690
		120.000	.0320
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -0.420	X/LB	1.001
		PHI	
		110.000	.0620
		120.000	.0120
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.270	X/LB	1.001
		PHI	
		110.000	.0370
		120.000	-.0050
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.110	X/LB	1.001
		PHI	
		110.000	.0070
		120.000	-.0170
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.210	X/LB	1.001
		PHI	
		110.000	.0240
		120.000	-.0360
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.370	X/LB	1.001
		PHI	
		110.000	-.0360
		120.000	-.0460
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.530	X/LB	1.001
		PHI	
		110.000	-.0740
		120.000	-.0670
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 6.690	X/LB	1.001
		PHI	
		110.000	-.0310
		120.000	-.0740
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -0.730	X/LB	1.001
		PHI	
		110.000	.0360
		120.000	.0460

DATE 18 SEP 73

TABULATED PRESSURE DATA - IASC  
 AMES 67-707 IAS O2A + S3 + T9 OMS FOD OUTSIDE

(RENN677)

SECTION ( 1 ) OMS FOD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.540 X/LB 1.001  
 PHI 110.000 .0160  
 120.000 .0240

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.340 X/LB 1.001  
 PHI 110.000 -.0020  
 120.000 .0030

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140 X/LB 1.001  
 PHI 110.000 -.0220  
 120.000 -.0140

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.250 X/LB 1.001  
 PHI 110.000 -.0490  
 120.000 -.0490

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.480 X/LB 1.001  
 PHI 110.000 -.0540  
 120.000 -.0550

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.660 X/LB 1.001  
 PHI 110.000 -.0730  
 120.000 -.0670

MACH ( 3 ) = 3.502 BETAT ( 8 ) = 8.850 X/LB 1.001  
 PHI 110.000 -.0720  
 120.000 -.0690

ANES 87-707 1A9 02A + S3 + T9 OMS POD OUTSIDE

(RBNM08) ( 10 MAY 75 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 26.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

PARAMETRIC DATA

ALPHAT = 4.0000 ORBINC = .9000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	X/LB	PHI
		110.000	-0.0190
		120.000	-0.0090
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	X/LB	PHI
		110.000	-0.0360
		120.000	-0.0260
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.190	X/LB	PHI
		110.000	-0.0490
		120.000	-0.0370
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.070	X/LB	PHI
		110.000	-0.0610
		120.000	-0.0450
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.170	X/LB	PHI
		110.000	-0.0780
		120.000	-0.0530
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.300	X/LB	PHI
		110.000	-0.0780
		120.000	-0.0690
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.420	X/LB	PHI
		110.000	-0.0950
		120.000	-0.0840
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.550	X/LB	PHI
		110.000	-0.1090
		120.000	-0.0960

TABLULATED PRESSURE DATA - IASC

DATE 18 SEP 73

(REMPLE)

AMES 87-707 IAS OEA + S3 + T9 OMS POD OUTSIDE

SECTION ( 1 ) OWS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.580

X/LB	1.001
PHI	
110.000	.0680
120.000	.0240

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -0.420

X/LB	1.001
PHI	
110.000	.0600
120.000	.0000

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.260

X/LB	1.001
PHI	
110.000	.0360
120.000	-.0130

MACH ( 2 ) = 2.999 BETAT ( 4 ) = -2.100

X/LP	1.001
PHI	
110.000	.0190
120.000	-.0270

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 2.210

X/LB	1.001
PHI	
110.000	.0220
120.000	-.0390

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 4.370

X/LB	1.001
PHI	
110.000	-.0600
120.000	-.0310

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 6.540

X/LB	1.001
PHI	
110.000	-.0500
120.000	-.0680

MACH ( 2 ) = 2.999 BETAT ( 8 ) = 8.700

X/LB	1.001
PHI	
110.000	-.0390
120.000	-.0790

MACH ( 3 ) = 3.912 BETAT ( 1 ) = -0.720

X/LJ	1.001
PHI	
110.000	.0320
120.000	.0380

TABULATED PRESSURE DATA - IA9C

AMES 87-707 IA9 O2A + S3 + T9 OMS POD OUTSIDE

(REMOVED)

DATE 10 SEP 73

DEPENDENT VARIABLE CP

SECTION ( 1 ) OMS POD OUTSIDE

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.530  
X/LB 1.001  
PHI 110.000 .0290  
120.000 .0140

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330  
X/LB 1.001  
PHI 110.000 -.0100  
120.000 -.0020

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.140  
X/LB 1.001  
PHI 110.000 -.0290  
120.000 -.0190

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260  
X/LB 1.001  
PHI 110.000 -.0560  
120.000 -.0530

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.460  
X/LB 1.001  
PHI 110.000 -.0640  
120.000 -.0620

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.660  
X/LB 1.001  
PHI 110.000 -.0730  
120.000 -.0730

MACH ( 3 ) = 3.502 BETAT ( 8 ) = 8.860  
X/LB 1.001  
PHI 110.000 -.0760  
120.000 -.0730

DATE 18 SEP 73 TABULATED PRESSURE DATA - IA9C

AMES 87-787 1A9 OEA + S3 + T9 OMS POD OUTSIDE

(RBNM09) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = 6.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .5000  
 RUFLR = .0000

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.410	X/LB	PHI
		110.000	-.0200
		120.000	-.0160
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.290	X/LB	PHI
		110.000	-.0380
		120.000	-.0330
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.170	X/LB	PHI
		110.000	-.0520
		120.000	-.0440
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -2.060	X/LB	PHI
		110.000	-.0650
		120.000	-.0530
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	X/LB	PHI
		110.000	-.0870
		120.000	-.0660
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.300	X/LB	PHI
		110.000	-.0810
		120.000	-.0650
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.440	X/LB	PHI
		110.000	-.0940
		120.000	-.0810
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.570	X/LB	PHI
		110.000	-.0990
		120.000	-.0970



AMES 87-737 1A9 OZA + S3 + T9 CMS POD OUTSIDE

(RBNMJS)

## SECTION ( 1 ) OMS POC OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.560	X/LB	1.101
		PHI	
		110.000	.0400
		120.000	.0120
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.400	X/LB	1.101
		PHI	
		110.000	.0590
		120.000	-.0180
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.250	X/LB	1.101
		PHI	
		110.000	.0310
		120.000	-.0220
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.100	X/LB	1.101
		PHI	
		110.000	.0220
		120.000	-.0330
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.210	X/LB	1.101
		PHI	
		110.000	-.0140
		120.000	-.0410
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.380	X/LB	1.101
		PHI	
		110.000	-.0150
		120.000	-.0540
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.530	X/LB	1.101
		PHI	
		110.000	-.0330
		120.000	-.0620
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.720	X/LB	1.101
		PHI	
		110.000	-.0560
		120.000	-.0760
MACH ( 3 ) = 3.972	BETAT ( 1 ) = -8.710	X/LB	1.101
		PHI	
		110.000	.0230
		120.000	.0230

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

ANES 67-707 IAS ORA + S3 + T9 OMS POD OUTSIDE

(REMARKS)

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.510  
 X/LB 1.001  
 PHI  
 110.000 .5020  
 120.000 .5070

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.320  
 X/LB 1.001  
 PHI  
 110.000 -.0180  
 120.000 -.0120

MACH ( 3 ) = 3.502 BETAT ( 4 ) = -2.130  
 X/LB 1.001  
 PHI  
 110.000 -.0340  
 120.000 -.0290

MACH ( 3 ) = 3.502 BETAT ( 5 ) = 2.260  
 X/LB 1.001  
 PHI  
 110.000 -.0520  
 120.000 -.0420

MACH ( 3 ) = 3.502 BETAT ( 6 ) = 4.470  
 X/LB 1.001  
 PHI  
 110.000 -.0630  
 120.000 -.0580

MACH ( 3 ) = 3.502 BETAT ( 7 ) = 6.670  
 X/LB 1.001  
 PHI  
 110.000 -.0790  
 120.000 -.0760

MACH ( 3 ) = 3.502 BETAT ( 8 ) = 8.880  
 X/LB 1.001  
 PHI  
 110.000 -.0820  
 120.000 -.0780

AMES 87-707 IA9 O2A + S3 + T9 OMS POD OUTSIDE

(RBNN1U) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 50.FT. XMRP = 20.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = 8.0000 ORBINC = .5000  
 RUDDER = .0000 ELEVON = .0000  
 RUDFLR = .0000

SECTION ( 1 ) OMS POD OUTSIDE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -0.380	X/LB	PHI
		1.001	1.001
		110.000	-.0020
		120.000	-.0270
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -0.270	X/LB	PHI
		1.001	1.001
		110.000	-.0480
		120.000	-.0420
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -0.170	X/LB	PHI
		1.001	1.001
		110.000	-.0620
		120.000	-.0540
MACH ( 1 ) = 2.498	BETAT ( 4 ) = -0.060	X/LB	PHI
		1.001	1.001
		110.000	-.0710
		120.000	-.0620
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 2.180	X/LB	PHI
		1.001	1.001
		110.000	-.0890
		120.000	-.0670
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 4.320	X/LB	PHI
		1.001	1.001
		110.000	-.0890
		120.000	-.0680
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 6.450	X/LB	PHI
		1.001	1.001
		110.000	-.1070
		120.000	-.0810
MACH ( 1 ) = 2.498	BETAT ( 8 ) = 8.580	X/LB	PHI
		1.001	1.001
		110.000	-.1020
		120.000	-.0950



AMES 87-757 IAS ORA + S3 + T9 OMS POD OUTSIDE

(CONTINUED)

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.340	X/LB	1.551
		PHI	
		115.560	.5330
		125.560	.5510
MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.390	X/LB	1.551
		PHI	
		115.560	.5580
		125.560	-.5240
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.240	X/LB	1.551
		PHI	
		115.560	.6270
		125.560	-.5340
MACH ( 2 ) = 2.999	BETAT ( 4 ) = -2.590	X/LB	1.551
		PHI	
		115.560	.6600
		125.560	-.5490
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 2.290	X/LB	1.551
		PHI	
		115.560	-.5890
		125.560	-.5510
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 4.460	X/LB	1.551
		PHI	
		115.560	-.5880
		125.560	-.5920
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 6.570	X/LB	1.551
		PHI	
		115.560	-.5930
		125.560	-.5990
MACH ( 2 ) = 2.999	BETAT ( 8 ) = 8.740	X/LB	1.551
		PHI	
		115.560	-.5780
		125.560	-.5740
MACH ( 3 ) = 3.562	BETAT ( 1 ) = -8.690	X/LB	1.551
		PHI	
		115.560	.5450
		125.560	.5150

DATE 18 SEP 75 TABULATED PRESSURE DATA - IA9C

AMES 87-707 IA9 OZA + S3 + T9 OMS POD OUTSIDE

(RBNM1U)

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.500	X/1B	1.001
		PHI	
		110.000	-0.0010
		120.000	-0.0010
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.310	X/1B	1.001
		PHI	
		110.000	-0.0180
		120.000	-0.0180
MACH ( 3 ) = 3.502	BETAT ( 4 ) = -2.130	X/1B	1.001
		PHI	
		110.000	-0.0330
		120.000	-0.0320
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 2.260	X/1B	1.001
		PHI	
		110.000	-0.0560
		120.000	-0.0440
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 4.480	X/1B	1.001
		PHI	
		110.000	-0.0590
		120.000	-0.0900
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.680	X/1B	1.001
		PHI	
		110.000	-0.0680
		120.000	-0.0990
MACH ( 3 ) = 3.502	BETAT ( 8 ) = 8.900	X/1B	1.001
		PHI	
		110.000	-0.0790
		120.000	-0.0720

AVES 87-707 1A8 OBA + S3 + T9 OMS POD OUTSIDE

(REMI11) ( 15 MAY 73 )

REFERENCE DATA

SREP = 2.6210 90.FT. XRRP = 28.5350 INCHES  
 LREF = 39.8490 INCHES YRRP = .5600 INCHES  
 RREF = 39.8490 INCHES ZRRP = .5600 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = -8.5500 ORBINC = .910  
 RUDDER = -15.5500 ELEVON = .500  
 RUDDLR = .5500

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.395	X/1B	1.501
		PHI	
		115.500	.1515
		125.500	.5975
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -8.275	X/1B	1.501
		PHI	
		115.500	.0950
		125.500	.5750
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	X/1B	1.501
		PHI	
		115.500	.1540
		125.500	.5650
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .580	X/1B	1.501
		PHI	
		115.500	.0950
		125.500	.5440
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.330	X/1B	1.501
		PHI	
		115.500	.0310
		125.500	.5140
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.460	X/1B	1.501
		PHI	
		115.500	.0690
		125.500	-.5190
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.650	X/1B	1.501
		PHI	
		115.500	-.5570
		125.500	-.5440
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.560	X/1B	1.501
		PHI	
		115.500	.1460
		125.500	.1260

DATE 18 SEP 75 TABULATED PRESSURE DATA - 1A9C  
AMES 97-707 1A9 OCA + S3 + T9 OMS POD OUTSIDE (RBNH11)

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) =	BETAT ( 2 ) =	X/LB	PHI
2.999	-6.415	1.551	
		115.550	.5760
		125.550	.1590
MACH ( 2 ) =	BETAT ( 3 ) =	X/LB	PHI
2.999	-4.280	1.551	
		115.550	.1530
		125.550	.5680
MACH ( 2 ) =	BETAT ( 4 ) =	X/LB	PHI
2.999	.050	1.551	
		115.550	.5920
		125.550	.5475
MACH ( 2 ) =	BETAT ( 5 ) =	X/LB	PHI
2.999	4.420	1.551	
		115.550	.5330
		125.550	.5145
MACH ( 2 ) =	BETAT ( 6 ) =	X/LB	PHI
2.999	6.595	1.551	
		115.550	.5180
		125.550	-.5160
MACH ( 2 ) =	BETAT ( 7 ) =	X/LB	PHI
2.999	6.750	1.551	
		115.550	-.5230
		125.550	-.5330
MACH ( 3 ) =	BETAT ( 1 ) =	X/LB	PHI
3.502	-6.710	1.551	
		115.550	.1515
		125.550	.1420
MACH ( 3 ) =	BETAT ( 2 ) =	X/LB	PHI
3.502	-6.520	1.551	
		115.550	.1280
		125.550	.1120
MACH ( 3 ) =	BETAT ( 3 ) =	X/LB	PHI
3.502	-4.330	1.551	
		115.550	.1190
		125.550	.5650

AMES 87-797 IAS OSA + S3 + T9 OMS POD OUTSIDE

(R200111)

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.542	BETAT ( 4 ) = .555	X/LB	PHI
		110.500	.0750
		120.500	.5070
MACH ( 3 ) = 3.542	BETAT ( 5 ) = 4.475	X/LB	PHI
		110.500	.0795
		120.500	.5125
MACH ( 3 ) = 3.542	BETAT ( 6 ) = 6.695	X/LB	PHI
		110.500	.5565
		120.500	-.5165
MACH ( 3 ) = 3.542	BETAT ( 7 ) = 8.915	X/LB	PHI
		110.500	.5175
		120.500	-.5285



AVES 87-707 IA9 02A + S3 + T9 OMS POD OUTSIDE

(5BHW12) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ. FT. XWRP = 20.5300 INCHES  
 LREF = 39.8490 INCHES YWRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZWRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = -4.0000 ORBINC = .5000  
 RUDDER = -0.0000 ELEVON = .0000  
 RUDDLF = .0000

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -6.420	X/1B	1.001
		PHI	
		110.000	.0410
		120.000	.0590
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	X/1B	1.001
		PHI	
		110.000	.0330
		120.000	.0410
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	X/1B	1.001
		PHI	
		110.000	.0090
		120.000	.0240
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .080	X/1B	1.001
		PHI	
		110.000	.0710
		120.000	.0130
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.310	X/1B	1.001
		PHI	
		110.000	.0320
		120.000	-.0190
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.430	X/1B	1.001
		PHI	
		110.000	.0260
		120.000	-.0560
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.560	X/1B	1.001
		PHI	
		110.000	-.0140
		120.000	-.0660
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -6.580	X/1B	1.001
		PHI	
		110.000	.1120
		120.000	.0780

DATE 18 SEP 75 TABULATED PRESSURE DATA - IASC  
 ANES 87-757 IAG O2A + S3 + T9 OMS POD OUTSIDE (R08M12)

SECTION ( 1) OMS POD OUTSIDE	DEPENDENT VARIABLE ± CP
MACH ( 2) = 2.999 BETAT ( 2) = -5.430	X/LB 1.001 PHI .0610 120.000 .0560
MACH ( 2) = 2.999 BETAT ( 3) = -4.270	X/LB 1.001 PHI .0620 120.000 .0410
MACH ( 2) = 2.999 BETAT ( 4) = .050	X/LB 1.001 PHI .0620 120.000 .0160
MACH ( 2) = 2.999 BETAT ( 5) = 4.380	X/LB 1.001 PHI .0040 120.000 -.0140
MACH ( 2) = 2.999 BETAT ( 6) = 6.550	X/LB 1.001 PHI -.0330 120.000 -.0440
MACH ( 2) = 2.999 BETAT ( 7) = 8.710	X/LB 1.001 PHI -.0260 120.000 -.0330
MACH ( 3) = 3.502 BETAT ( 1) = -8.740	X/LB 1.001 PHI .0990 120.000 .1340
MACH ( 3) = 3.502 BETAT ( 2) = -6.540	X/LB 1.001 PHI .0690 120.000 .0750
MACH ( 3) = 3.502 BETAT ( 3) = -4.350	X/LB 1.001 PHI .0750 120.000 .0490



DATE 18 SEP 73      TABULATED PRESSURE DATA - IASC

AMES 87-707 IAS OEA + S3 + T9 OMS POD OUTSIDE      (RENN12)

SECTION ( 1 ) OMS POD OUTSIDE      DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502    BETAT ( 4 ) = .590      X/LB    1.001  
PHI  
110.000    .5610  
120.000    .0000

MACH ( 3 ) = 3.502    BETAT ( 5 ) = 4.460      X/LB    1.001  
PHI  
110.000    .0620  
120.000    -.0260

MACH ( 3 ) = 3.502    BETAT ( 6 ) = 6.660      X/LB    1.001  
PHI  
110.000    -.0310  
120.000    -.0320

MACH ( 3 ) = 3.502    BETAT ( 7 ) = 8.080      X/LB    1.001  
PHI  
110.000    -.0480  
120.000    -.0420

ANES 87-707 IA9 OBA + 53 + T9 OMS POD OUTSIDE

(RBMM13) ( 15 MAY 75 )

## REFERENCE DATA

SREF = 2.4210 56.17. XMRP = 28.5350 INCHES  
 LREF = 39.8495 INCHES YMRP = .5530 INCHES  
 BREF = 39.8495 INCHES ZMRP = .5520 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = .0000 ORBINC = .5000  
 RUDDER = -.550000 ELEVON = .5000  
 RUDDLE = .0000

## SECTION ( 1 ) OMS POD OUTSIDE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.420	X/1B	1.001
		PHI	
		110.000	.0210
		120.000	.0290
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -8.300	X/1B	1.001
		PHI	
		110.000	.0240
		120.000	.0300
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.180	X/1B	1.001
		PHI	
		110.000	.0680
		120.000	-.0240
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .560	X/1B	1.001
		PHI	
		110.000	-.0280
		120.000	-.0170
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.300	X/1B	1.001
		PHI	
		110.000	-.0660
		120.000	-.0460
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.420	X/1B	1.001
		PHI	
		110.000	-.0720
		120.000	-.0680
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.540	X/1B	1.001
		PHI	
		110.000	-.0110
		120.000	-.0860
MACH ( 2 ) = 2.998	BETAT ( 1 ) = -8.580	X/1B	1.001
		PHI	
		110.000	.0840
		120.000	.0470

TABULATED PRESSURE DATA - 1A9C

(RBNW13)

AMES 87-707 1A9 OCA + S3 + T9 OMS POD OUTSIDE

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.420 X/LB 1.001  
 PHI  
 110.000 .0590  
 120.000 .0330

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.260 X/LB 1.001  
 PHI  
 110.000 .0410  
 120.000 .0170

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .060 X/LB 1.001  
 PHI  
 110.000 .0780  
 120.000 -.0120

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.380 X/LB 1.001  
 PHI  
 110.000 -.0460  
 120.000 -.0480

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.540 X/LB 1.001  
 PHI  
 110.000 -.0630  
 120.000 -.0580

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.690 X/LB 1.001  
 PHI  
 110.000 -.0650  
 120.000 -.0640

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.750 X/LB 1.001  
 PHI  
 110.000 .0460  
 120.000 .0540

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.550 X/LB 1.001  
 PHI  
 110.000 .0340  
 120.000 .0480

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.350 X/LB 1.001  
 PHI  
 110.000 .0210  
 120.000 .0230



DATE 10 SEP 73 TABULATED PRESSURE DATA - IASC

AMES 87-707 IAS OCA + S3 + T9 OMS POD OUTSIDE (RBNM13)

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 4 ) = .050	X/LB	PHI
		110.000	-.0260
		120.000	-.0210

MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.450	X/LB	PHI
		110.000	.0260
		120.000	-.0460

MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.650	X/LB	PHI
		110.000	-.0590
		120.000	-.0590

MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.640	X/LB	PHI
		110.000	-.0550
		120.000	-.0610

AMES 87-707 IA9 OZA + S3 + T9 OMS FOD OUTSIDE

(RBNM14) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BRFP = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .1000 SCALE

## PARAMETRIC DATA

ALPHAT = 4.000 ORBINC = .500  
 RUDDER = -15.000 ELEWON = .000  
 RUOFLR = .000

## SECTION ( 1 ) OMS FOD OUTSIDE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.498 BETAT ( 1 ) = -0.410

X/LB	1.001
PHI	
110.000	.0190
120.000	.0220

MACH ( 1 ) = 2.498 BETAT ( 2 ) = -6.290

X/LB	1.001
PHI	
110.000	-.0040
120.000	-.0160

MACH ( 1 ) = 2.498 BETAT ( 3 ) = -4.180

X/LB	1.001
PHI	
110.000	-.0180
120.000	-.0290

MACH ( 1 ) = 2.498 BETAT ( 4 ) = .060

X/LB	1.001
PHI	
110.000	-.0340
120.000	-.0440

MACH ( 1 ) = 2.498 BETAT ( 5 ) = 4.310

X/LB	1.001
PHI	
110.000	-.0780
120.000	-.0990

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.430

X/LB	1.001
PHI	
110.000	-.0870
120.000	-.0750

MACH ( 1 ) = 2.498 BETAT ( 7 ) = 0.560

X/LB	1.001
PHI	
110.000	-.1050
120.000	-.0930

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.560

X/LB	1.001
PHI	
110.000	.0080
120.000	.0290

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC  
 ANES 87-707 IAS OBA + S3 + T9 OMS POD OUTSIDE (RBNM14)

SECTION ( 1) OMS POD OUTSIDE	DEPENDENT VARIABLE CP
MACH ( 2) = 2.999 BETAT ( 2) = -6.4 D	X/LB 1.501 PHI .5580 110.560 .5979 120.560 .5979
MACH ( 2) = 2.999 BETAT ( 3) = -4.230	X/LB 1.501 PHI .5340 110.560 -.5680 120.560 -.5680
MACH ( 2) = 2.999 BETAT ( 4) = .060	X/LB 1.501 PHI -.5470 110.560 -.5270 120.560 -.5270
MACH ( 2) = 2.999 BETAT ( 5) = 4.360	X/LB 1.501 PHI -.5630 110.560 -.5480 120.560 -.5480
MACH ( 2) = 2.999 BETAT ( 6) = 6.550	X/LB 1.501 PHI -.5710 110.560 -.5610 120.560 -.5610
MACH ( 2) = 2.999 BETAT ( 7) = 8.710	X/LB 1.501 PHI -.5820 110.560 -.5690 120.560 -.5690
MACH ( 3) = 3.502 BETAT ( 1) = -6.730	X/LB 1.501 PHI .5520 110.560 .5990 120.560 .5990
MACH ( 3) = 3.502 BETAT ( 2) = -6.530	X/LB 1.501 PHI .5270 110.560 .5150 120.560 .5150
MACH ( 3) = 3.502 BETAT ( 3) = -4.340	X/LB 1.501 PHI .5140 110.560 .5140 120.560 .5140





AWES 87-707 1A9 OZA + S3 + T9 OMS POD OUTSIDE

(RBMM14)

SECTION ( 1 ) OMS POD OUTSIDE DEFENDENT VARIABLE CP

MACH ( 3 ) = 3.502 BETAT ( 4 ) = .0350

X/LB 1.001  
PHI  
110.000 -.0080  
120.000 -.0300

MACH ( 4 ) = 3.502 BETAT ( 5 ) = 4.450

X/LB 1.001  
PHI  
110.000 -.0010  
120.000 -.0560

MACH ( 5 ) = 3.502 BETAT ( 6 ) = 6.660

X/LB 1.001  
PHI  
110.000 -.0280  
120.000 -.1670

MACH ( 6 ) = 3.502 BETAT ( 7 ) = 8.860

X/LB 1.001  
PHI  
110.000 -.0620  
120.000 -.1700

ANES 87-707 IA9 OEA + S3 + T9 OHS POD OUTSIDE

(RBNW15) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8495 INCHES YMRP = .0220 INCHES  
 BREF = 39.8495 INCHES ZMRP = .0000 INCHES  
 SCALE = .0350 SCALE

## PARAMETRIC DATA

ALPHAT = 6.5440 ORBINC = .9440  
 RUDDER = -15.1640 ELEVON = .0000  
 RUDDFLR = .5440

## SECTION ( 1 ) OHS POD OUTSIDE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.496	BETAT ( 1 ) = -0.390	X/LB	PHI	1.001
		110.000	-0.0220	
		120.000	-0.0000	
MACH ( 1 ) = 2.496	BETAT ( 2 ) = -6.260	X/LB	PHI	1.001
		110.000	-0.0110	
		120.000	-0.0270	
MACH ( 1 ) = 2.496	BETAT ( 3 ) = -4.160	X/LB	PHI	1.001
		110.000	.0180	
		120.000	-0.0410	
MACH ( 1 ) = 2.496	BETAT ( 4 ) = .060	X/LB	PHI	1.001
		110.000	-0.0280	
		120.000	-0.0510	
MACH ( 1 ) = 2.496	BETAT ( 5 ) = 4.310	X/LB	PHI	1.001
		110.000	-0.0190	
		120.000	-0.0990	
MACH ( 1 ) = 2.496	BETAT ( 6 ) = 6.440	X/LB	PHI	1.001
		110.000	-0.0190	
		120.000	-0.0760	
MACH ( 1 ) = 2.496	BETAT ( 7 ) = 8.570	X/LB	PHI	1.001
		110.000	-0.0000	
		120.000	-0.0820	
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -0.550	X/LB	PHI	1.001
		110.000	.0420	
		120.000	.0190	

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

AVES 87-757 IAS ORA + S3 + T9 OMS POD OUTSIDE

(P80M15)

DEPENDENT VARIABLE CP

SECTION ( 1 ) OMS POD OUTSIDE

MACH ( 2 ) = 2.999 BETAT ( 2 ) = -6.450 X/LB 1.551  
 PHI 115.000 .5560  
 120.000 -.5240

MACH ( 2 ) = 2.999 BETAT ( 3 ) = -4.240 X/LB 1.551  
 PHI 115.000 .0280  
 120.000 -.5190

MACH ( 2 ) = 2.999 BETAT ( 4 ) = .560 X/LB 1.551  
 PHI 115.000 .0240  
 120.000 -.5050

MACH ( 2 ) = 2.999 BETAT ( 5 ) = 4.390 X/LB 1.551  
 PHI 115.000 -.5200  
 120.000 -.5480

MACH ( 2 ) = 2.999 BETAT ( 6 ) = 6.570 X/LB 1.551  
 PHI 115.000 -.5160  
 120.000 -.5580

MACH ( 2 ) = 2.999 BETAT ( 7 ) = 8.750 X/LB 1.551  
 PHI 115.000 -.5320  
 120.000 -.5700

MACH ( 3 ) = 3.502 BETAT ( 1 ) = -8.710 X/LB 1.551  
 PHI 115.000 .5530  
 120.000 .5310

MACH ( 3 ) = 3.502 BETAT ( 2 ) = -6.520 X/LB 1.551  
 PHI 115.000 .5300  
 120.000 .5100

MACH ( 3 ) = 3.502 BETAT ( 3 ) = -4.330 X/LB 1.551  
 PHI 115.000 .5110  
 120.000 -.5080

AVES 07-707 1A9 02A + S3 + T9 OMS POD OUTSIDE

(R0MM15)

## SECTION ( 1 ) OMS 1 ... OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.5/2	BETAT ( 4 ) = .050	X/LB	1.001
		PHI	
		110.000	-.0190
		120.000	-.0360
MACH ( 3 ) = 3.5/2	BETAT ( 5 ) = 4.460	X/LB	1.001
		PHI	
		110.000	-.1400
		120.000	-.1520
MACH ( 3 ) = 3.5/2	BETAT ( 6 ) = 6.660	X/LB	1.001
		PHI	
		110.000	-.1270
		120.000	-.1670
MACH ( 3 ) = 3.5/2	BETAT ( 7 ) = 8.880	X/LB	1.001
		PHI	
		110.000	-.0060
		120.000	-.0710

AVES 87-707 1A9 02A + S3 + T9 OMS POD OUTSIDE

(RBNW16) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4215 SQ.FT. XMRP = 28.5344 INCHES  
 LREF = 39.8495 INCHES YMRP = .0000 INCHES  
 BREF = 39.8495 INCHES ZMRP = .0000 INCHES  
 SCALE = .03024 SCALE

PARAMETRIC DATA

ALPHAT = 8.1440 ORBINC = .5640  
 RUDDER = -15.0440 ELEVON = .0000  
 RUDFLR = .0000

DEPENDENT VARIABLE OF

SECTION ( 1 ) OMS POD OUTSIDE

MACH ( 1 ) = 2.498	BETAT ( 1 ) = -8.370	X/LB	PHI
		110.000	.0350
		120.000	-.0250
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.270	X/LB	PHI
		110.000	.0120
		120.000	-.0330
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.160	X/LB	PHI
		110.000	.0150
		120.000	-.0460
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .160	X/LB	PHI
		110.000	-.0290
		120.000	-.0610
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.330	X/LB	PHI
		110.000	-.0590
		120.000	-.0820
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.460	X/LB	PHI
		110.000	-.1010
		120.000	-.0780
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.600	X/LB	PHI
		110.000	-.0730
		120.000	-.0690
MACH ( 2 ) = 2.998	BETAT ( 1 ) = -8.530	X/LB	PHI
		110.000	.0430
		120.000	.0050

AMES 87-757 1A9 ORA + S3 + T9 OMS POD OUTSIDE

(SBNM16)

## SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -6.360	X/LB	1.501
		PHI	
		110.500	.0900
		120.500	-.0120
MACH ( 2 ) = 2.999	BETAT ( 3 ) = -4.230	X/LB	1.501
		PHI	
		110.500	.0270
		120.500	-.0270
MACH ( 2 ) = 2.999	BETAT ( 4 ) = .060	X/LB	1.501
		PHI	
		110.500	-.0620
		120.500	-.0430
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 4.400	X/LB	1.501
		PHI	
		110.500	-.0390
		120.500	-.0430
MACH ( 2 ) = 2.999	BETAT ( 6 ) = 6.580	X/LB	1.501
		PHI	
		110.500	-.0280
		120.500	-.0520
MACH ( 2 ) = 2.999	BETAT ( 7 ) = 8.750	X/LB	1.501
		PHI	
		110.500	-.0290
		120.500	-.0600
MACH ( 3 ) = 3.500	BETAT ( 1 ) = -6.690	X/LB	1.501
		PHI	
		110.500	.0160
		120.500	.0190
MACH ( 3 ) = 3.500	BETAT ( 2 ) = -6.500	X/LB	1.501
		PHI	
		110.500	.0290
		120.500	.0010
MACH ( 3 ) = 3.500	BETAT ( 3 ) = -4.320	X/LB	1.501
		PHI	
		110.500	-.0190
		120.500	-.0130

DATE 18 SEP 73 TABULATED PRESSURE DATA - IASC

AMES 87-707 IAS OCA + S3 + T9 OMS POD OUTSIDE (R28M16)

SECTION ( 1 ) OMS POD OUTSIDE	DEPENDENT VARIABLE CP
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .0593
	X/LB 1.501
	PHI
	110.000 -.0190
	120.000 -.0400
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.473
	X/LB 1.501
	PHI
	110.000 .0000
	120.000 -.0500
MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.665
	X/LB 1.501
	PHI
	110.000 -.0230
	120.000 -.0610
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 6.900
	X/LB 1.501
	PHI
	110.000 -.0380
	120.000 -.0680

PARAMETRIC DATA

ALPHAT = -8.5500 ORBINC = .5000  
 RUDDER = -10.1000 ELEVON = .0000  
 RUDFLR = .0000

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0000 SCALE

SECTION ( 1 ) OMS FOD OUTSIDE DEPENDENT VARIABLE OF

MACH	BETAT	X/1B	PHI
MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.390	X/1B 1.000	PHI 1.000
		110.000 .1520	120.000 .0930
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.280	X/1B 1.000	PHI 1.000
		110.000 .1330	120.000 .0760
MACH ( 1 ) = 2.498	BETAT ( 3 ) = -4.160	X/1B 1.000	PHI 1.000
		110.000 .1090	120.000 .0650
MACH ( 1 ) = 2.498	BETAT ( 4 ) = .060	X/1B 1.000	PHI 1.000
		110.000 .0920	120.000 .0410
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.330	X/1B 1.000	PHI 1.000
		110.000 .0610	120.000 .0110
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.470	X/1B 1.000	PHI 1.000
		110.000 .0590	120.000 -.0260
MACH ( 1 ) = 2.499	BETAT ( 7 ) = 8.600	X/1B 1.000	PHI 1.000
		110.000 .0320	120.000 -.0470
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.540	X/1B 1.000	PHI 1.000
		110.000 .1490	120.000 .1280





DATE 18 SEP 73

TABULATED PRESSURE DATA - IA9C

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AMES 87-707 1A9 O2A + S3 + T9 OMS POD OUTSIDE

(RBNM17)

SECTION ( 1 ) OMS POD OUTSIDE

DEFENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.240	X/LB	1.001
		PHI	
		110.000	.1070
		120.000	.0910
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	X/LB	1.001
		PHI	
		110.000	.0970
		120.000	.1530
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.410	X/LB	1.001
		PHI	
		110.000	.0740
		120.000	.0130
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 8.760	X/LB	1.001
		PHI	
		110.000	.0340
		120.000	-.0310
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -6.700	X/LB	1.001
		PHI	
		110.000	.1320
		120.000	.1380
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.510	X/LB	1.001
		PHI	
		110.000	.1000
		120.000	.1130
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.320	X/LB	1.001
		PHI	
		110.000	.0960
		120.000	.0820
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .060	X/LB	1.001
		PHI	
		110.000	.0940
		120.000	.0420
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.490	X/LB	1.001
		PHI	
		110.000	.1080
		120.000	.0070

TABULATED PRESSURE DATA - IASC

AVES 67-707 IAS OEA + S3 + T9 OMS POD OUTSIDE

(REMARK 7)

DATE 18 SEP 73

SECTION ( 1 ) OMS POD OUTSIDE		DEPENDENT VARIABLE CP	
MACH ( 3 ) = 3.512	BETAT ( 6 ) = 6.700	X/LB	1.001
		PHI	
		110.000	.0480
		120.000	.0010
MACH ( 3 ) = 3.512	BETAT ( 7 ) = 6.910	X/LB	1.001
		PHI	
		110.000	.0270
		120.000	-.1220



AMES 87-757 IA9 OEA + S3 + T9 OMS POD OUTSIDE

(RBNM10) ( 10 MAY 73 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 28.5310 INCHES  
 LREF = 39.8490 INCHES YMRP = 1.6220 INCHES  
 BREF = 39.8490 INCHES ZMRP = 1.6220 INCHES  
 SCALE = 0.3150 SCALE

GEOMETRIC DATA

ALPHA\* = -4.0000 ORBINC = .5000  
 RUDDER = -0.0000 ELEVON = .0000  
 RUDDLR = .0000

SECTION ( 1 ) OMS POD OUTSIDE

DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.420	X/LB	PHI
		110.000	.1390
		120.000	.0590
MACH ( 1 ) = 2.498	BETAT ( 2 ) = -6.300	X/LB	PHI
		110.000	.1580
		120.000	.0390
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.180	X/LB	PHI
		110.000	.0790
		120.000	.0200
MACH ( 1 ) = 2.499	BETAT ( 4 ) = .560	X/LB	PHI
		110.000	.0690
		120.000	.0090
MACH ( 1 ) = 2.498	BETAT ( 5 ) = 4.310	X/LB	PHI
		110.000	.0690
		120.000	-.0210
MACH ( 1 ) = 2.498	BETAT ( 6 ) = 6.430	X/LB	PHI
		110.000	-.0020
		120.000	-.0580
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.560	X/LB	PHI
		110.000	.0010
		120.000	-.0710
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.560	X/LB	PHI
		110.000	.1180
		120.000	.0640

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TABULATED PRESSURE DATA - IASC  
 AMES 87-707 1A9 02A + S3 + T9 OMS POD OUTSIDE

(RBNN18)

SECTION ( 1 ) OMS POD OUTSIDE  
 DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.260	X/LB	1.000
		PHI	
		110.000	.0640
		120.000	.0460
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	X/LB	1.000
		PHI	
		110.000	.0520
		120.000	.0170
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.390	X/LB	1.000
		PHI	
		110.000	.0350
		120.000	-.0150
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 8.720	X/LB	1.000
		PHI	
		110.000	-.0410
		120.000	-.0540
MACH ( 3 ) = 3.502	BETAT ( 1 ) = -8.730	X/LB	1.000
		PHI	
		110.000	.0830
		120.000	.1020
MACH ( 3 ) = 3.502	BETAT ( 2 ) = -6.530	X/LB	1.000
		PHI	
		110.000	.0640
		120.000	.0710
MACH ( 3 ) = 3.502	BETAT ( 3 ) = -4.330	X/LB	1.000
		PHI	
		110.000	.0540
		120.000	.0520
MACH ( 3 ) = 3.502	BETAT ( 4 ) = .060	X/LB	1.000
		PHI	
		110.000	.0550
		120.000	.0100
MACH ( 3 ) = 3.502	BETAT ( 5 ) = 4.470	X/LB	1.000
		PHI	
		110.000	.0670
		120.000	-.0180



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TABLATED PRESSURE DATA - IASC

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ANES 87-707 IAS OEA + S3 + T9 OMS POD OUTSIDE

(RBNH16)

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.670	X/LB	1.001
		PHI	
		110.000	.0120
		120.000	-.0260
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 8.870	X/LB	1.001
		PHI	
		110.000	.0100
		120.000	-.0350

AMES 87-757 IAG ORA + 53 + T9 OMS POD OUTSIDE

FEBM19) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4215 50. FT. XMRP = 29.5350 INCHES  
 LREF = 39.8490 INCHES MRF = 0.0000 INCHES  
 SREF = 39.8490 INCHES ZMRP = 0.0000 INCHES  
 SCALE = 0.0000 SCALE

ALPHAT = 0.0000 OFFBINC = 0.500  
 FUDGE = 0.000000 ELEVON = 0.000  
 RUDGE = 0.000

## PARAMETRIC DATA

## SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499	BETAT ( 1 ) = -8.430	X/LB	1.501
		PHI	
		110.000	0.5940
		120.000	0.2000
MACH ( 1 ) = 2.499	BETAT ( 2 ) = -6.310	X/LB	1.501
		PHI	
		110.000	0.9990
		120.000	0.0000
MACH ( 1 ) = 2.499	BETAT ( 3 ) = -4.180	X/LB	1.501
		PHI	
		110.000	0.6000
		120.000	-0.0000
MACH ( 1 ) = 2.499	BETAT ( 4 ) = 0.560	X/LB	1.501
		PHI	
		110.000	-0.0000
		120.000	-0.0000
MACH ( 1 ) = 2.499	BETAT ( 5 ) = 4.300	X/LB	1.501
		PHI	
		110.000	-0.0000
		120.000	-0.0000
MACH ( 1 ) = 2.499	BETAT ( 6 ) = 6.430	X/LB	1.501
		PHI	
		110.000	-0.0000
		120.000	-0.0000
MACH ( 1 ) = 2.498	BETAT ( 7 ) = 8.590	X/LB	1.501
		PHI	
		110.000	-0.0000
		120.000	-0.0000
MACH ( 2 ) = 2.999	BETAT ( 1 ) = -8.580	X/LB	1.501
		PHI	
		110.000	0.0000
		120.000	0.0000

DATE 18 SEP 73 TABULATED PRESSURE DATA - 1A9C

AVES 97-737 1A9 ORA + S3 + T9 OMS POD OUTSIDE

(SEP-8119)

SECTION 1: OMS POD OUTSIDE DEPENDENT VARIABLE C2

WACH ( 2 ) = 2.999 BETAT ( 2 ) = -4.280

X/LB	1.501
PHI	
115.160	-0.5015
120.160	0.1775

WACH ( 2 ) = 2.999 BETAT ( 3 ) = 0.580

X/LB	1.501
PHI	
115.160	0.190
120.160	-0.0215

WACH ( 2 ) = 2.999 BETAT ( 4 ) = 4.380

X/LB	1.501
PHI	
115.160	0.430
120.160	-0.1495

WACH ( 2 ) = 2.999 BETAT ( 5 ) = 8.715

X/LB	1.501
PHI	
115.160	0.430
120.160	-0.0725

WACH ( 3 ) = 3.952 BETAT ( 1 ) = -8.780

X/LB	1.501
PHI	
115.160	0.1975
120.160	0.680

WACH ( 3 ) = 3.952 BETAT ( 2 ) = -8.580

X/LB	1.501
PHI	
115.160	0.4825
120.160	0.4485

WACH ( 3 ) = 3.952 BETAT ( 3 ) = -4.380

X/LB	1.501
PHI	
115.160	0.0290
120.160	0.0225

WACH ( 3 ) = 3.952 BETAT ( 4 ) = 0.580

X/LB	1.501
PHI	
115.160	0.190
120.160	-0.0285

WACH ( 3 ) = 3.952 BETAT ( 5 ) = 4.480

X/LB	1.501
PHI	
115.160	-0.1475
120.160	-0.1485



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TABLATED PRESSURE DATA - IA9C

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AMES 87-707 IA9 OEA + S3 + T9 OMS POD OUTSIDE

(RBNM19)

SECTION ( 3 ) OMS POD OUTSIDE

DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.542 BETAT ( 6 ) = 6.660

X/LB 1.001

PHI

110.000 -.0190

120.000 -.0900

MACH ( 3 ) = 3.542 BETAT ( 7 ) = 6.660

X/LB 1.001

PHI

110.000 -.0140

120.000 -.0960





DATE 10 SEP 73

TABLATED PRESSURE DATA - 1ASC

AVES 07-707 1A9 06A + S3 + T9 OMS POD OUTSIDE

(R080820) ( 10 MAY 73 )

REFERENCE DATA

XREF = 2.4210 94.FT. XMRP = 26.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHAT = 4.0000 ORBINC = .5000  
 RUDDER = -10.0000 ELEVON = .0000  
 RUDFLR = .0000

SECTION ( 1 ) OMS POD OUTSIDE	DEPENDENT VARIABLE CP
MACH ( 1 ) = 2.499 BETAT ( 1 ) = -0.410	X/LB 1.001 PHI 110.000 .0530 120.000 -.0050
MACH ( 1 ) = 2.499 BETAT ( 2 ) = -0.250	X/LB 1.001 PHI 110.000 .0340 120.000 -.0160
MACH ( 1 ) = 2.499 BETAT ( 3 ) = -0.170	X/LB 1.001 PHI 110.000 .0490 120.000 -.0290
MACH ( 1 ) = 2.499 BETAT ( 4 ) = .060	X/LB 1.001 PHI 110.000 -.0960 120.000 -.0430
MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.310	X/LB 1.001 PHI 110.000 -.0420 120.000 -.0550
MACH ( 1 ) = 2.499 BETAT ( 6 ) = 6.430	X/LB 1.001 PHI 110.000 -.0960 120.000 -.0750
MACH ( 1 ) = 2.499 BETAT ( 7 ) = 8.560	X/LB 1.001 PHI 110.000 -.0960 120.000 -.0620
MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.970	X/LB 1.001 PHI 110.000 .0870 120.000 .0270

AVES 07-707 1A9 02A + S3 + T9 OMS POD OUTSIDE

(REMOVED)

## SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2 ) = 2.999	BETAT ( 2 ) = -4.290	X/LB	1.001
		PHI	
		110.000	.0330
		120.000	-.0110
MACH ( 2 ) = 2.999	BETAT ( 3 ) = .060	X/LB	1.001
		PHI	
		110.000	.0220
		120.000	-.0270
MACH ( 2 ) = 2.999	BETAT ( 4 ) = 4.390	X/LB	1.001
		PHI	
		110.000	-.0090
		120.000	-.0470
MACH ( 2 ) = 2.999	BETAT ( 5 ) = 0.720	X/LB	1.001
		PHI	
		110.000	-.0110
		120.000	-.0740
MACH ( 3 ) = 3.508	BETAT ( 1 ) = -0.780	X/LB	1.001
		PHI	
		110.000	.0580
		120.000	.0430
MACH ( 3 ) = 3.508	BETAT ( 2 ) = -6.530	X/LB	1.001
		PHI	
		110.000	.0330
		120.000	.0210
MACH ( 3 ) = 3.508	BETAT ( 3 ) = -4.330	X/LB	1.001
		PHI	
		110.000	.0170
		120.000	.0440
MACH ( 3 ) = 3.508	BETAT ( 4 ) = .060	X/LB	1.001
		PHI	
		110.000	-.0090
		120.000	-.0280
MACH ( 3 ) = 3.508	BETAT ( 5 ) = 4.460	X/LB	1.001
		PHI	
		110.000	.0180
		120.000	-.0640



DATE 10 SEP 73      TABULATED PRESSURE DATA - IA9C      (RBNKZJ)  
AMES 07-707 IA9 O2A + S3 + T9 OMS POD OUTSIDE

SECTION ( 1 ) OMS POD OUTSIDE      DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.502	BETAT ( 6 ) = 6.670	X/LB	1.001
		PHI	
		110.000	.0300
		120.000	-.0690
MACH ( 3 ) = 3.502	BETAT ( 7 ) = 0.070	X/LB	1.001
		PHI	
		110.000	-.0230
		120.000	-.0610

AMES 67-707 1A9 OZA + S3 + 79 OWS POD OUTSIDE

(RBN#21) ( 10 MAY 73 )

## REFERENCE DATA

SREF = 2.4210 98.FT. XMRP = 28.5300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0000 INCHES  
 BREF = 39.8490 INCHES ZMRP = .5000 INCHES  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHAT = 5.0000 ORBINC = .5000  
 RUDDER = -2.0000 ELEVON = .0000  
 RUDFLR = .0000

## SECTION ( 1 ) OWS POD OUTSIDE

## DEPENDENT VARIABLE CP

MACH ( 1 ) = 2.499 BETAT ( 1 ) = -8.390

X/LB 1.001  
 PHI  
 110.000 .0390  
 120.000 -.0120

MACH ( 1 ) = 2.499 LETAT ( 2 ) = -6.280

X/LB 1.001  
 PHI  
 110.000 .0100  
 120.000 -.0290

MACH ( 1 ) = 2.499 BETAT ( 3 ) = -4.170

X/LB 1.001  
 PHI  
 110.000 .0160  
 120.000 -.0420

MACH ( 1 ) = 2.499 BETAT ( 4 ) = .060

X/LB 1.001  
 PHI  
 110.000 .0000  
 120.000 -.0560

MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.310

X/LB 1.001  
 PHI  
 110.000 -.0530  
 120.000 -.0630

MACH ( 1 ) = 2.498 BETAT ( 6 ) = 6.440

X/LB 1.001  
 PHI  
 110.000 -.0990  
 120.000 -.0760

MACH ( 1 ) = 2.499 BETAT ( 7 ) = 8.570

X/LB 1.001  
 PHI  
 110.000 -.0670  
 120.000 -.0680

MACH ( 2 ) = 2.999 BETAT ( 1 ) = -8.550

X/LB 1.001  
 PHI  
 110.000 .0690  
 120.000 .0140

AVES 67-707 1A9 OCA + S3 + T9 OMS POD OUTSIDE

(RBNM21)

SECTION ( 1) OMS POD OUTSIDE	DEPENDENT VARIABLE CP
MACH ( 2) = 2.999 BETAT ( 2) = -4.240	X/LB 1.001 PHI 110.000 .0270 120.000 -.0210
MACH ( 2) = 2.999 BETAT ( 3) = .060	X/LB 1.001 PHI 110.000 .0210 120.000 -.0370
MACH ( 2) = 2.999 BETAT ( 4) = 4.400	X/LB 1.001 PHI 110.000 .0290 120.000 -.0470
MACH ( 2) = 2.999 BETAT ( 5) = 8.730	X/LB 1.001 PHI 110.000 -.0420 120.000 -.0720
MACH ( 3) = 3.502 BETAT ( 1) = -8.710	X/LB 1.001 PHI 110.000 .0670 120.000 .0960
MACH ( 3) = 3.502 BETAT ( 2) = -6.510	X/LB 1.001 PHI 110.000 .0360 120.000 .0160
MACH ( 3) = 3.502 BETAT ( 3) = -4.320	X/LB 1.001 PHI 110.000 .0360 120.000 -.0420
MACH ( 3) = 3.502 BETAT ( 4) = .060	X/LB 1.001 PHI 110.000 -.0130 120.000 -.0330
MACH ( 3) = 3.502 BETAT ( 5) = 4.470	X/LB 1.001 PHI 110.000 .0140 120.000 -.0510

ANES 87-757 IAS OEA + 33 + T9 OMS POD OUTSIDE

(RBNW21)

SECTION ( 1 ) OMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.562	BETAT ( 6 ) = 6.875	X/LB	PHI
		110.500	-0.0070
		125.500	-0.0660

MACH ( 3 ) = 3.562	BETAT ( 7 ) = 6.090	X/LB	PHI
		110.500	-0.0320
		125.000	-0.0660

REFERENCE DATA  
 SREF = 2.4210 SQ.FT. XMRP = 28.3300 INCHES  
 LREF = 39.8490 INCHES YMRP = .0200 INCHES  
 BREF = 39.8490 INCHES ZMRP = .0000 INCHES  
 SCALE = .0300 SCALE

PARAMETRIC DATA  
 ALPHAT = 0.000 ORBINC = .500  
 RUDDER = -10.000 ELEVON = .000  
 RUDFLR = .000

SECTION ( 1 ) OMS POD OUTSIDE	DEPENDENT VARIABLE CP
MACH ( 1 ) = 2.499 BETAT ( 1 ) = -0.370	X/LC 1.001 PHI .0320 110.000 120.000 -0.0260
MACH ( 1 ) = 2.499 BETAT ( 2 ) = -0.260	X/LB 1.001 PHI .0130 110.000 120.000 -0.0400
MACH ( 1 ) = 2.499 BETAT ( 3 ) = -0.150	X/LB 1.001 PHI .0170 110.000 120.000 -0.0530
MACH ( 1 ) = 2.499 BETAT ( 4 ) = .060	X/LB 1.001 PHI -0.610 110.000 120.000 -0.0680
MACH ( 1 ) = 2.499 BETAT ( 5 ) = 4.390	X/LB 1.001 PHI -0.090 110.000 120.000 -0.0650
MACH ( 1 ) = 2.499 BETAT ( 6 ) = 6.460	X/LB 1.001 PHI -0.680 110.000 120.000 -0.0760
MACH ( 1 ) = 2.499 BETAT ( 7 ) = 8.600	X/LB 1.001 PHI -0.070 110.000 120.000 -0.0860
MACH ( 2 ) = 2.999 BETAT ( 1 ) = -0.530	X/LB 1.001 PHI .0180 110.000 120.000 .0030

AWES 07-707 1A9 ORA + S3 + T9 OMS FOD OUTSIDE

(RESN022)

## SECTION ( 1) OMS FOD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 2) = 2.999	BETAT ( 2) = -4.235	X/LB	1.161
		FHI	
		115.000	.0270
		120.000	-.0250
MACH ( 2) = 2.999	BETAT ( 3) = .060	X/LB	1.161
		FHI	
		115.000	.0240
		120.000	-.0440
MACH ( 2) = 2.999	BETAT ( 4) = 4.400	X/LB	1.161
		FHI	
		115.000	-.0290
		120.000	-.0480
MACH ( 2) = 2.999	BETAT ( 5) = 0.750	X/LB	1.161
		FHI	
		115.000	-.0340
		120.000	-.0690
MACH ( 3) = 3.502	BETAT ( 1) = -6.680	X/LB	1.161
		FHI	
		115.000	.0570
		120.000	.0250
MACH ( 3) = 3.502	BETAT ( 2) = -6.480	X/LB	1.161
		FHI	
		115.000	.0340
		120.000	.0090
MACH ( 3) = 3.502	BETAT ( 3) = -4.310	X/LB	1.161
		FHI	
		115.000	.0110
		120.000	-.0110
MACH ( 3) = 3.502	BETAT ( 4) = .060	X/LB	1.161
		FHI	
		115.000	-.0480
		120.000	-.0380
MACH ( 3) = 3.502	BETAT ( 5) = 4.400	X/LB	1.161
		FHI	
		115.000	.0120
		120.000	-.0460





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INSULATED PRESSURE DATA - IA9C

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AMES 87-707 IA9 OEA + S3 + T9 CMS POD OUTSIDE

(RBNM22)

SECTION ( 1 ) CMS POD OUTSIDE DEPENDENT VARIABLE CP

MACH ( 3 ) = 3.902	BETAT ( 6 ) = 6.700	X/LB	1.001
		PHI	
		110.000	.0380
		120.000	-.0550
MACH ( 3 ) = 3.902	BETAT ( 7 ) = 6.910	X/LB	1.001
		PHI	
		110.000	-.0310
		120.000	-.0630

NASA-MSFC-MAF