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**RESULTS OF AN EXPERIMENTAL INVESTIGATION  
TO DETERMINE SEPARATION CHARACTERISTICS  
FOR THE ORBITER/747 USING A 0.0125-SCALE  
MODEL (48-0 AX1318I-1 747) IN THE AMES  
RESEARCH CENTER 14-FOOT WIND TUNNEL  
(CA23B)**

**CHRYSLER CORP., NEW ORLEANS, LA. SPACE  
DIV**

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AX1318I-1 747) IN THE AMES RESEARCH CENTER  
14-FOOT WIND TUNNEL (CA23B)

by

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Rockwell International Space Division

Prepared under NASA Contract Number NAS9-13247

by

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

for

Engineering Analysis Division  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: ARC 14-120  
NASA Series Number: CA23B  
Model Number: 48-0 Orbiter/AX1318I-1 747  
Test Dates: June 23 through July 22, 1975  
Occupancy Hours: 180

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RESULTS OF AN EXPERIMENTAL INVESTIGATION TO  
DETERMINE SEPARATION CHARACTERISTICS FOR THE  
ORBITER/747 USING A 0.0125-SCALE MODEL (48-0  
AX13181-1 747) IN THE AMES RESEARCH CENTER  
14-FOOT WIND TUNNEL (CA23B)

by

V. Esparza  
Rockwell International Space Division

ABSTRACT

This report documents aerodynamic separation data obtained from a wind tunnel test of an 0.0125-scale SSV Orbiter model of a VC70-000002 Configuration and a 0.0125-scale 747 model built by The Boeing Company.

Separation data were obtained at a Mach number of 0.6 and three incidence angles ( $i_0$ ) of  $4^\circ$ ,  $6^\circ$ , and  $8^\circ$ . The orbiter angle of attack was varied from 0 to 14 degrees.

Longitudinal, lateral and normal separation increments were obtained for fixed 747 angles of attack of  $0^\circ$ ,  $2^\circ$ , and  $4^\circ$  while varying orbiter angle of attack. Control surface settings on the 747 carrier included rudder deflections of  $0^\circ$  and  $10^\circ$  and horizontal stabilizer deflections of  $-1^\circ$  and  $+5^\circ$ .

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SCHEDULE OF COEFFICIENTS PLOTTED:

- (A) DCL, DCD, DCLM versus DZ
- (B) CL, CD, CLM versus DZ
- (C) CL, CD, CLM, CY, C<sub>Y</sub>, C<sub>Y</sub>, C<sub>Y</sub> versus DZ
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- (E) C<sub>L</sub>, C<sub>D</sub>, C<sub>L</sub>M versus ALPHAC
- (F) C<sub>L</sub>, C<sub>D</sub>, C<sub>L</sub>M versus ALPHAO
- (G) C<sub>L</sub>, C<sub>D</sub>, C<sub>L</sub>M versus DX

NOMENCLATURE

General

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
$C_p$	CP	pressure coefficient; $(P_i - P_\infty)/q$
M	MACH	Mach number; $V/a$
p		pressure; N/m <sup>2</sup> , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2 \rho V^2$ , N/m <sup>2</sup> , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
$\alpha$	ALPHAC	747 angle of attack, degrees
$\alpha_o$	ALPHAO	Orbiter angle of attack, degrees
$\beta$	BETA BETAC	747 angle of sideslip, degrees
$\beta_o$	BETAO	Orbiter angle of sideslip, degrees
$\psi$	PSI	angle of yaw, degrees
$\phi$	PHIO PHIC	Orbiter angle of roll, degrees 747 angle of roll, degrees
$i_o$	IORB	Orbiter incidence relative to 747 FRL, degrees
$\rho$		mass density; kg/m <sup>3</sup> , slugs/ft <sup>3</sup>
<u>Reference &amp; C.G. Definitions</u>		
$A_b$		base area; m <sup>2</sup> , ft <sup>2</sup>
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\frac{l_{REF}}{\bar{c}}$	LREF	reference length or wing mean aerodynamic chord; m, ft

NOMENCLATURE (Continued)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
S	SREF	wing area or reference area; $m^2$ , $ft^2$
MRC	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

Body-Axis System

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$C_N$	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
$C_A$	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_{A_b}$	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
$C_{A_f}$	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS \ell_{REF}}$



NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$C_n$	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
$C_l$	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$

Stability-Axis System

$C_L$	CL	lift coefficient; $\frac{\text{lift}}{qS}$
$C_D$	CD	drag coefficient; $\frac{\text{drag}}{qS}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_{D_b}$	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
$C_{D_f}$	CDF	forebody drag coefficient; $C_D - C_{D_b}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
$C_n$	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
$C_l$	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
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)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$\Delta C_L$	DCL	incremental lift coefficient
$\Delta C_D$	DCD	incremental drag coefficient
$\Delta C_m$	DCLM	incremental pitching-moment coefficient
$\Delta C_Y$	DCY	incremental side-force coefficient
$\Delta C_n$	DCYN	incremental yawing-moment coefficient
$\Delta C_l$	DCBL	incremental rolling-moment coefficient
	XZCP	longitudinal center of pressure in normal force plane
	XYCP	lateral center of pressure in side force plane
$\delta_r$	RUDDER	747 rudder surface deflection angle, positive deflection trailing edge to the left, degrees
$\delta_e$	ELEVON	Orbiter elevon surface deflection angle, positive deflection trailing edge down, degrees
$\delta_s$	STAB	747 stabilizer surface deflection angle, positive deflection trailing edge down, degrees
<u>ORBITER SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$C_{P_{co}}$	CPC	Orbiter balance cavity pressure coefficient
$C_{P_{B1}}$	CPB1	Orbiter tail-cone-off base pressure coefficient
$C_{P_{B2}}$	CPB2	Orbiter tail-cone-off base pressure coefficient

NOMENCLATURE (Concluded)

<u>ORBITER SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$C_{PB3}$	CPB3	Orbiter tail-cone-off pressure coefficient
$C_{PBE}$	CPE3	Dummy strut pressure coefficient
$C_{PS1}$	CPS1	Pressure coefficient on L.H. side of Strut $S_1$
$C_{PS2}$	CPS2	Pressure coefficient on R.H. side of Strut $S_1$

747 SYMBOL

$C_{PCC}$	CPC	747 sting cavity pressure coefficient
$C_{PSB1}$	CPSB1	747 sting base exit pressure coefficient
$C_{PSB2}$	CPSB2	747 sting base exit pressure coefficient

<u>SEPARATION PARAMETERS</u>	<u>PLOT SYMBOL</u>	
$\Delta X$	DX	Longitudinal displacement, ft.
$\Delta Y$	DY	Lateral displacement, ft.
$\Delta Z$	DZ	Vertical displacement, ft.

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REMARKS

The nominal orbiter elevon deflections tested were  $0^\circ$  and  $+5^\circ$ . The actual measured elevon deflections were as follows:

NOMINAL	MEASURED			
	$\delta_e$ Left		$\delta_e$ Right	
	Outboard	Inboard	Outboard	Inboard
$5^\circ$	$4^\circ 59'$	$5^\circ 10'$	$4^\circ 55'$	$4^\circ 53'$

The zero elevon deflection was not measured since it faired into the contour of the VC70-000002 orbiter vehicle lines.

The 747 carrier nominal horizontal stabilizer settings used in the test were  $\delta_{\mu} = -1^\circ$  and  $\delta_{\mu} = 5^\circ$ . The actual measured deflections were  $\delta_{\mu} = -53'$  and  $\delta_{\mu} = +4^\circ 48'$ , respectively.

## CONFIGURATIONS INVESTIGATED

The Orbiter model was a 0.0125 scale representation of the Rockwell International Space Shuttle Vehicle built to Rockwell lines VC70-000002. The basic orbiter model is of the blended wing-body design utilizing a double delta wing (75°/45°), full span elevons with deflection capability, a centerline vertical tail with rudder deflection capability, a canopy, a body flap and an orbital maneuvering system (OMS) mounted on the aft fuselage sidewalls.

A tail cone fairing used to cover the MPS nozzles and OMS nozzles was tested for a limited number of runs.

The .0125 scale model of the Rockwell International Space Shuttle Vehicle is constructed primarily of 7075-T6 aluminum. The orbiter wing panels are made from 2024-T-851 aluminum while the elevon brackets are made from ARMCO 17-4 PH CRES.

### Model Nomenclature

O<sub>1</sub> = B<sub>64</sub> C<sub>14</sub> F<sub>14</sub> E<sub>44</sub> M<sub>18</sub> N<sub>94</sub> N<sub>92</sub> R<sub>18</sub> V<sub>23</sub> W<sub>116</sub>  
 O<sub>2</sub> = B<sub>64</sub> C<sub>14</sub> F<sub>14</sub> E<sub>44</sub> M<sub>18</sub> N<sub>94</sub> N<sub>92</sub> W<sub>116</sub>  
 O<sub>3</sub> = B<sub>64</sub> C<sub>14</sub> F<sub>14</sub> E<sub>44</sub> M<sub>18</sub> R<sub>18</sub> V<sub>23</sub> W<sub>116</sub> TC<sub>4</sub>  
 O<sub>4</sub> = B<sub>64</sub> C<sub>14</sub> F<sub>14</sub> E<sub>44</sub> M<sub>18</sub> N<sub>92</sub> R<sub>18</sub> V<sub>23</sub> W<sub>116</sub>

### Component

### Description

B<sub>64</sub>

Orbiter fuselage per Rockwell lines VC70-000002, Model Drawing SS-A01377

CONFIGURATIONS INVESTIGATED - (Continued)

<u>Component</u>	<u>Description</u>
C <sub>14</sub>	Orbiter canopy per Rockwell lines VC70-000002, Model Drawing SS-A01377
E <sub>44</sub>	Orbiter full span, unswept hingeline, 6-inch gapped elevons per Rockwell lines VC70-000002, Model Drawing SS-A01377
F <sub>14</sub>	Orbiter body flap per Rockwell lines VC70-000002, Model Drawing SS-A01377
M <sub>18</sub>	Orbiter OMS/RCS pods per Rockwell lines VC70-000002, Model Drawing SS-A01377
N <sub>94</sub>	Orbiter main engine nozzles per Rockwell lines VC70-000002, Model Drawing SS-A01377
N <sub>92</sub>	Orbiter OMS engine nozzles per Rockwell lines VC70-000002, Model Drawing SS-A01377
R <sub>18</sub>	Orbiter rudder per Rockwell lines VC70-000002, Model Drawing SS-A01377
V <sub>23</sub>	Orbiter vertical tail per Rockwell lines VC70-000002, Model Drawing SS-A01377
W <sub>116</sub>	Orbiter double delta wing per Rockwell lines VC70-000002, Model Drawing SS-A01377
TC <sub>4</sub>	Orbiter tail cone fairing which covers the MPS nozzles and the OMS nozzles and base.

The attach hardware utilized in conjunction with separation testing consisted of several configurations. The faired aft attach hardware (AT<sub>99</sub>) was used throughout the duration of the separation test. Incidence angles of 4°, 6°, and 8° were tested utilizing the faired forward attach hardware AT<sub>96</sub>, AT<sub>97</sub>, and AT<sub>98</sub>.

AT<sub>97</sub> was used for  $i_o = 6^\circ$ , and  $8^\circ$ .

CONFIGURATIONS INVESTIGATED - (Continued)

The 0.0125 scale 747 carrier model, fabricated by The Boeing Company, utilized 200 sq. ft. stabilizer tip fins, flaps at 0 degrees and standard in-flight speed brakes extended. The horizontal tail was capable of deflecting +35° to -11° in two degree increments (FRP).

The following nomenclature was used to designate model components for The Boeing Company 0.0125-scale 747 Carrier Model:

<u>Component</u>	<u>Description</u>
B <sub>27.8</sub>	Fuselage
W <sub>44.1</sub>	Wing
V <sub>9.1</sub>	Basic Vertical Tail
H <sub>15</sub>	Horizontal Tail
H <sub>15.6</sub>	Horizontal Tail with Vertical Fins
M <sub>25</sub>	Inboard Nacelle struts
M <sub>26</sub>	Outboard Nacelle struts
N <sub>57</sub>	Inboard Nacelles
N <sub>58</sub>	Outboard Nacelles
S <sub>1-12</sub>	Spoiler panels
T <sub>14</sub>	Flap Track Fairing
S <sub>1</sub>	Orbiter support blade strut, upper entry position

The configurations investigated utilizing the components previously described were as follows:

CONFIGURATIONS INVESTIGATED - (Concluded)

<u>Configuration</u>	<u>Orbiter Incidence (<math>i_o</math>)</u>
747/1 AT <sub>96</sub>	4°
747/1 AT <sub>97</sub>	6°
747/1 AT <sub>98</sub>	8°
747/1 AT <sub>96</sub> O <sub>2</sub> S <sub>1</sub>	4°
747/1 AT <sub>97</sub> O <sub>2</sub> S <sub>1</sub>	6°
747/1 AT <sub>98</sub> O <sub>2</sub> S <sub>1</sub>	8°
747/1 AT <sub>96</sub> O <sub>3</sub> S <sub>1</sub>	4°
747/1 AT <sub>97</sub> O <sub>3</sub> S <sub>1</sub>	6°
747/1 AT <sub>98</sub> O <sub>3</sub> S <sub>1</sub>	8°
O <sub>2</sub> S <sub>1</sub>	--
O <sub>3</sub> S <sub>1</sub>	--



## INSTRUMENTATION

The orbiter was mounted on the NASA/Ames 1.0 inch Task MK XIV internal force balance and the 747 Carrier was mounted on the NASA/Ames 1.5 inch MK II Internal Force balance.

Pressure instrumentation in the orbiter consisted of a sting cavity pressure tap ( $P_{CO}$ ) and a pressure tap ( $P_{S1}$ ,  $P_{S2}$ ) on each side of strut  $S_1$ . When the tail cone ( $TC_4$ ) was removed, three (3) base pressures were measured- $P_{B1}$ ,  $P_{B2}$ , and  $P_{B3}$ . See figures 2g and 2i.

Pressure instrumentation in the 747 carrier consisted of sting cavity pressure tap ( $P_{CC}$ ) and two static pressure taps ( $P_{SB1}$ ,  $P_{SB2}$ ). These tap locations are shown in figure 2i.

### TEST FACILITY DESCRIPTION

The Ames 14-Foot Transonic Wind Tunnel was created by extensive modification of the former Ames 16-Foot High Speed Wind Tunnel. It has an adjustable, flexible-wall nozzle and the test section is slotted on all four sides to permit transonic testing. The air circuit is closed except for the air exchanger in a low-speed section of the circuit, which is controlled to maintain the air temperature within suitable limits.

The air is driven by a three-stage, axial-flow compressor powered by three electric motors mounted in tandem outside the wind tunnel. The drive system is rated 110,000 horsepower continuously or 132,000 horsepower for one hour. The speed of the motors is continuously variable over the operating range.

#### Performance:

Mach number	0.6 to 1.2, continuously variable
Pressure, stagnation, atm	1.0
Reynolds number, per ft	$2.8 \times 10^6$ to $4.2 \times 10^6$
Temperature, stagnation	Controllable over limited range by throttling the air exchanger. Generally about 640° R to avoid condensation of moisture in the test section

#### Dimensions:

Test section height, ft	13.50
Test section width, ft	13.71 at upstream end 13.92 at downstream end
Test section length, ft	33.75

## DATA REDUCTION

Model force and moment data were reduced to coefficient form in the body and stability axes systems. Coefficient data were computed separately for each vehicle using its own reference dimensions. Moment data for each vehicle is reduced about its own reference center of gravity.

Relative separation angles and displacements were computed for the orbiter with respect to the 747 carrier. These values are presented in the 747 body axis system and displacement will represent the movement of the orbiter aft attachment point from its base position. The orbiter base position is defined as the orbiter in the mated configuration.

All model positions and attitude data are corrected for support hardware deflections.

### Reference Dimensions and Constants

<u>747 Symbol</u>	<u>Definition</u>	<u>Model Scale</u>	<u>Full Scale</u>
$S_c$	Wing reference area, ft <sup>2</sup>	0.859	5500
$b_c$	Wing span, in.	29.351	2348.04
$\bar{c}_c$	Wing, MAC, in.	4.097	327.78
$MRCX_c$	Moment Ref. Center 747 M.S.	16.749	1339.90
$MRCZ_c$	Moment Ref. Center 747 W.L.	2.385	190.75
$BMCZ_c$	Balance Moment Center 747 M.S.	16.608	1328.64
$BMCX_c$	Balance Moment Center 747 W.L.	2.896	231.68

DATA REDUCTION (Continued)

<u>Orbiter Symbol</u>	<u>Definition</u>	<u>Model Scale</u>	<u>Full Scale</u>
$S_o$	Wing reference area, ft <sup>2</sup>	0.420	2690
$b_o$	Wing span, in	11.709	936.68
$\bar{c}_o$	Wing MAC, in.	5.935	474.81
$MRCX_o$	Moment Ref. Center Orbiter M.S.	13.862	1109
$MRCZ_o$	Moment Ref. Center Orbiter W.L.	4.687	375
$BMCX_o$	Balance Moment Center Orb. M.S.	13.305	1064
$BMCZ_o$	Balance Moment Center Orb. W.L.	5.377	430

Incremental force and moment coefficients were calculated for the orbiter data as follows:

$$\Delta C_{ORB}^{(747)} = C_{ORB}^{(747)} - C_{ORB}^{(ISOL)}$$

where:

$$\Delta C_{ORB}^{(747)} = \text{Proximity increment on orbiter coefficients}$$

$$C_{ORB}^{(747)} = \text{Coefficient of orbiter in presence of carrier}$$

$$C_{ORB}^{(ISOL)} = \text{Isolated orbiter coefficient}$$

Incremental force and moment coefficients were also calculated for the carrier as follows:

$$\Delta C_{747}^{(ORB)} = C_{747}^{(ORB)} - C_{747}^{(ISOL)}$$

where:

$$\Delta C_{747}^{(ORB)} = \text{Proximity increment on carrier coefficients}$$

DATA REDUCTION (Concluded)

$C_{747}^{(ORB)}$  = Coefficient of carrier in presence of orbiter

$C_{747}^{(ISOL)}$  = Isolated carrier coefficient

Refer to Table VI for a detailed summary.

## REFERENCES

### Reports and Internal Letters

- IL, SAS/WTO/74-172, Addendum #12, "Sting Design and Fabrication Effort Required for Support of Test CA23 Using Model 48-0/747."
- IL, SAS/WTO/74-172, Addendum #13, "Completion of CA23 Sting Hardware Fabrication," dated February 4, 1975.
- IL, SAS/WTO/74-172, Addendum #14, "Orbiter/747 Attach Hardware for CA23," dated February 18, 1975.
- IL, SAS/WTO/74-172, Addendum #15, "Model Requirements for 0.0125-Scale 48-0/747 Models to Support Tests CA23 and AA2."
- IL, SAS/WTO/74-172, Addendum #17, "Additional Model 48-0 Requirements," dated March 4, 1975.
- IL, SAS/WTO/74-172, Addendum #20, "Model Requirements for 48-0 in Support of Test CA21," dated May 2, 1975.
- IL, SAS/WTO/75-101, "Dimensional Verification of Model 48-0 During CA21 MRR and CA23," dated April 2, 1975.
- SD75-SH-0290A, "Pretest Information for a Test of an 0.0125 Scale Model 48-0 Orbiter/747 Flight Test Configuration in the ARC 14 Foot Tunnel CA23B," June, 1975.

### Drawings

- VC70-000002, "Design Geometry - Orbiter," dated June 10, 1974.
- SS-A01377, "Orbiter Assembly - #48-0, 0.0125-Scale SSV, Ferry Separation," dated August 9, 1974.
- SS-A01559, "Fwd. & Aft Attach Supports 48-0, .0125-Scale SSV Orbiter," dated March 11, 1975.
- SS-A01499, "Installation-0.0125-Scale SSV Orb/747, Carrier Ferry Sep., Ames 14-Ft WT (#48-0)," dated January 9, 1975.
- W-1132SA, "Sting Assy - 48-0 SSV, Carrier, Ferry/Separation," dated August 9, 1974.

REFERENCES (Concluded)

W-1133SA, "Sting Assy - Orbiter Ferry Separation, #48-0," dated January 13, 1975.

W-1142-SA, "Sting and Sting Adapter-0.0125-Scale SSV Orb., Carrier, Ferry/Separation #48-0," dated January 29, 1975.

W-1048-S, "Sting - (SSV-Delta and Str. Wing), Ames 6X6 SSWT," dated May 6, 1975.

W-1135-A, "Adapter Assy - #48-0 Orbiter/Carrier, Mated," dated August 17, 1974.

The Boeing Company - 747 Carrier

747-MD-461, "General Arrangement - 747 Space Shuttle Orbiter Carrier Aircraft (Piggyback Configuration)," dated July 15, 1974.

747-MD-576, "Structural Arrangement - Orbiter Aft Support, 747 MOD," dated August 1, 1974.

AX 1318I-1, "747 Model Drawings 0.0125 Scale".

TABLE I

TEST : CA23B		DATE : 11/18/75	
TEST CONDITIONS			
MACH NUMBER	REYNOLDS NUMBER (per ft X 10 <sup>6</sup> )	DYNAMIC PRESSURE (pounds/sq. ft)	STAGNATION TEMPERATURE (degrees Fahrenheit)
.6	3.6	417	92
.5	3.1	315	70
.3	2	126	71

BALANCE UTILIZED: NASA/ARC 1.0 inch Task MK XIV

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	<u>800 lb.</u>	_____	_____
SF	<u>400 lb.</u>	_____	_____
AF	<u>100 lb.</u>	_____	_____
PM	_____	_____	_____
RM	<u>250 in.-lb.</u>	_____	_____
YM	_____	_____	_____

COMMENTS: **This balance was used to obtain Orbiter separation data.**

BALANCE UTILIZED: NASA/ARC 1.5 inch MK II

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	<u>1000 lb.</u>	_____	_____
SF	<u>500 lb.</u>	_____	_____
AF	<u>100 lb.</u>	_____	_____
PM	_____	_____	_____
RM	<u>800 in.-lb.</u>	_____	_____
YM	_____	_____	_____

COMMENTS: **This balance was used to obtain 747 Carrier Separation data.**



TABLE II.

TEST: CA23B(ARC 14-120)		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 10/11/75 REVISED					
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		ORB.		PARAMETER/VALUES		TEST RUN NUMBER									
		$\alpha_c$	$\beta_c$	$\delta_c$	$\epsilon_c$	$\Delta Z$	M	2	3.5	7.5	10	15	30	45	50	50	
RNH004	747/1 AT1	A	0	-	-	18.5%	130	0.6	41	( $\Delta Z = 130$ )							
05	Y	A	0	5%	-	18.5%	130	0.6	51	( $\Delta Z = 130$ )							
08	747/1 AT1 $\phi_2 S_1$	A	0	-1%	5	0%	7		81	82	83	84	85	86	87		
09				-1%			6			91	92	93	94	95	96		
10				5%	8		6			101	102	103	104	105	106		
11				-1%	4		6		111	112	113	114	115	116			
12				-1%	6		3		121	122	123						
13		Y		5%	6	Y	7		131	132	133	134	135	136	137		
14		B			6	1%	7		141	142	143	144	145	146	147		
15					8	1%	6			151	152	153	154	155	156		
16					6	2%	7		161	162	163	164	165	166	167		
17					8	2%	6			171	172	173	174	175	176		
18					6	0/10	7		181	182	183	184	185	186	187		
19		Y			8	0/10	6			191	192	193	194	195	196		
20		A		Y	0	0%	6		201	202	203	204	205	206			
21				-1%	4		6		211	212	213	214	215	216			
22				5%	8		6			221	222	223	224	225	226		
Y 23	Y	Y	Y	5%	6	Y	7		231	232	233	234	235	236	237		

COEFFICIENT SCHEDULES ARE INDICATED IN PARENTHESIS (e.g. 58)

$\alpha$  OR  $\beta$  SCHEDULES  $\Delta = -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 0$

NOTE: AT1 = AT16 OR AT97 OR AT14

$A = \alpha_c = 0, 2, 4, 0$   
 $B = \alpha_c = 2, 4, 0$   
 $\Delta = \alpha_c = 0, 4, 6, 8, 10, 12, 14$

COEFFICIENT SCHEDULES  $\Delta = -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 0$

$\alpha = \alpha_c = 0, 2, 4, 0$   
 $\beta = \alpha_c = 2, 4, 0$   
 $\Delta = \alpha_c = 0, 4, 6, 8, 10, 12, 14$

COEFFICIENT SCHEDULES  $\Delta = -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 0$

TABLE II. - Continued

TEST: CA23B (ARC 14-120)			DATA SET/RUN NUMBER COLLATION SUMMARY																DATE: 10/11/75 REVISED
DATA SET IDENTIFIER	CONFIGURATION	SCHD. % AC	TEST RUN NUMBER																
			747	ORB.	PARAMETER	VALUES	2	3.5	7.5	10	15	30	45	50	50	50	60		
			δc	δc	ΔZ	M	ΔZ	M	ΔZ	M	ΔZ	M	ΔZ	M	ΔZ	M	ΔZ	M	
RNH024	747/1 AT1 φ2 S1	A	0	-1/0	0	6	0%	7	0.6		241	242	243	244	245	246	247		
25	Y	A	0	-1/0	0	8	0%	6			257	252	253	254	255	256			
27	747/1 AT1 φ3 S1	A		5/0		8	0%	6			261	262	263	264	265	266			
28		B				6	10%	7		281	282	283	284	285	286	287			
29		B				8	10%	6			291	292	293	294	295	296			
30		B				8	20%	6			301	302	303	304	305	306			
31		B				6	20%	6			311	312	313	314	315	316			
32		B				6	10%	7		321	322	323	324	325	326	327			
33		B				8	10%	6			331	332	333	334	335	336			
34		A				6	9%	9		341	342	343	344	345	346	347	348	349	
35		A		Y		4		6			351	352	353	354	355	356			
36		B		5/10	Y	6		9		361	362	363	364	365	366	367	368	369	
37		A		-1/0	0	6		9		371	372	373	374	375	376	377	378	379	
38	Y	A		5/0	5	6		9		381	382	383	384	385	386	387	388	389	
39	747/1 AT1 φ2 S1	B		5/10		6		7			391	392	393	394	395	396	397		
40		A		5/0		4		6	Y		401	402	403	404	405	406			
41		B		5/0		4		6	0.5		411	412	413	414	415	416			
42	Y	B		5/0	Y	4	Y	6	0.3		421	422	423	424	425	426			

α OR β SCHEDULES

COEFFICIENTS

\* NO α = 4°

7 13 19 25 31 37 43 49 55 61 67 73 79 85 91 97

TABLE II. - Concluded.

TEST: CA23B (ARC 14-120)		DATA SET RUN NUMBER COLLATION SUMMARY										DATE: 10/11/75 REVISED									
DATA SET IDENTIFIER	CONFIGURATION	SCHD. 747 ORB. PARAMETER/VALUES										ΔZ					ΔX				
		α <sub>0</sub>	β <sub>0</sub>	Δα/Δβ	S <sub>0</sub>	L <sub>0</sub>	ΔL	ΔY	ΔZ	M	2	20	40	60	0	5	10	15	20		
RNHO 43	φ <sub>2</sub> S1	Δ	0	5	-	0	0	Δ	60	431	432	433									
44	φ <sub>3</sub> S1				5								441								
45	φ <sub>3</sub> S1			0			Δ			451	452	453									
46	φ <sub>2</sub> S1	Y			0		Y	40				461									
47	φ <sub>2</sub> S1	Δ	0		0		Δ/0	50			ΔZ=50			471	472	473	474	475			
48	φ <sub>2</sub> S1	Y	0	Y	0	Y	Y	3	Y		ΔZ=3			481	482	483	484	485			

TABLE III (MODEL DIMENSIONAL DATA)

a. Orbiter Model

MODEL COMPONENT : BODY - OML - B<sub>4</sub>

GENERAL DESCRIPTION : The body is an elongated structure containing the Crew Module and Cargo Bay. Same as IML plus 1" TPS.

MODEL SCALE: 0.0125

DRAWING NUMBER : VC70-000002, SS-A01377

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_0 = 235$ to $1519$ ), In.	<u>1284.0</u>	<u>16.050</u>
Max Width ( $X_0 = 1516.8$ ), In.	<u>262.718</u>	<u>3.284</u>
Max Depth ( $X_0 = 1463.316$ ), In.	<u>348.575</u>	<u>3.107</u>
Fineness Ratio	<u>5.1365</u>	<u>5.1365</u>
Area - Ft <sup>2</sup>	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>340.82</u>	<u>0.053</u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>

TABLE III (Cont'd)

a. Orbiter Model

MODEL COMPONENT : CANOPY (OUTER MOLD LINE) - C.

GENERAL DESCRIPTION : The canopy is that part of the forward fuselage which covers the Crew Module. One inch TPS thickness on the canopy.

Configuration 1400.

MODEL SCALE: 0.0125

DRAWING NUMBER: VC70-000002, SS-A01377

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_0 = 435.196 - 670.0$ ), In.	<u>234.80</u>	<u>2.935</u>
Max Width ( $X_0 = 594.0$ ), In.	<u>195.58</u>	<u>2.445</u>
Max Depth	<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>

WINDSHIELD PLANES:

$$\begin{aligned}
 .7012 X_0 - .2552 Y_0 - .6656 Z_0 - 6.1789 &= 0 \\
 .5710 X_0 - .5641 Y_0 - .5965 Z_0 + 32.7354 &= 0 \\
 .2636 X_0 - .7564 Y_0 - .5965 Z_0 + 189.4099 &= 0
 \end{aligned}$$

TABLE III (Cont'd)

a. Orbiter Model

MODEL COMPONENT : ELEVON - E<sub>44</sub>

GENERAL DESCRIPTION : 6.0 In. F.S. gaps machined into E<sub>24</sub> elevon.

Flipper doors, centerbody pieces, and tipseals are not simulated. (Data are for one side.)

MODEL SCALE: 0.0125

DRAWING NUMBER Not available.

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Area - Ft <sup>2</sup>	<u>210.00</u>	<u>0.033</u>
Span (equivalent), In.,	<u>349.2</u>	<u>4.365</u>
Inb'd equivalent chord , In.	<u>118.0</u>	<u>1.475</u>
Outb'd equivalent chord , In.	<u>55.19</u>	<u>0.690</u>
Ratio movable surface chord/ total surface chord	<u>                    </u>	<u>                    </u>
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees	<u>                    </u>	<u>                    </u>
Leading Edge	<u>0.00</u>	<u>0.00</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
(Product of area & $\bar{c}$ )	<u>                    </u>	<u>                    </u>
Area Moment (Normalized by chord <sup>3</sup> ), Ft <sup>3</sup>	<u>1587.25</u>	<u>0.003</u>
Mean Aerodynamic Chord, In.	<u>90.7</u>	<u>1.134</u>

TABLE III (Cont'd)

a. Orbiter Model

MODEL COMPONENT: BODY FLAP - F<sub>14</sub>

GENERAL DESCRIPTION: The body flap is a secondary movable airfoil located at the aft end of the body.

MODEL SCALE: 0.0125

DRAWING NUMBER: VC70-000002

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>135.75</u>	<u>0.021</u>
Span (equivalent), In.	<u>241.33</u>	<u>3.017</u>
Inb'd equivalent chord, In.	<u>81.0</u>	<u>1.013</u>
Outb'd equivalent chord, In.	<u>81.0</u>	<u>1.013</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.0</u>	<u>0.0</u>
At Outb'd equiv. chord	<u>0.0</u>	<u>0.0</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.0</u>	<u>0.0</u>
Tailing Edge	<u>0.0</u>	<u>0.0</u>
Hingeline	<u>0.0</u>	<u>0.0</u>
(Product of Area & $\bar{c}$ )		
Area Moment (Normal to hingeline), Ft <sup>3</sup>	<u>916.31</u>	<u>0.0018</u>
Mean Aerodynamic Chord, In.	<u>81.0</u>	<u>1.013</u>

TABLE III (Cont'd)

a. Orbiter Model

MODEL COMPONENT : OMS PODS (OML) - M<sub>18</sub>

GENERAL DESCRIPTION : The OMS pods are nacelles housing the maneuvering engines and are located on the fuselage on either side of the vertical tail. Same as IML plus 1/2" TPS.

MODEL SCALE: 0.0125

DRAWING NUMBER : VC70-000002, VL70-843001

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_0=1311 - 1511$ ), In.	<u>200.00</u>	<u>2.500</u>
Max Width ( $X_0 = 304$ ), In.	<u>135.75</u>	<u>1.697</u>
Max Depth ( $X_0 = 304$ ), In.	<u>74.5</u>	<u>0.931</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area - Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>58.169</u>	<u>0.009</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>



TABLE III (Cont'd)

a. Orbiter Model

MODEL COMPONENT: MPS NOZZLES - N<sub>94</sub>

GENERAL DESCRIPTION: The main propulsion nozzles are laval-bell shaped and are located on the aft planes of the orbiter. These dimensions are external and are not to be scaled for plume tests.

MODEL SCALE: 0.0125

DRAWING NUMBER: VC70-000C02, VL70-008144; RS009169, RS009107, 13M15000

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane	<u>157.00</u>	<u>1.963</u>
Throat to Exit Plane	<u>          </u>	<u>          </u>
Diameter - In.		
Exit	<u>97.914</u>	<u>1.224</u>
Throat	<u>          </u>	<u>          </u>
Inlet	<u>          </u>	<u>          </u>
Area - ft <sup>2</sup>		
Exit	<u>52.290</u>	<u>0.008</u>
Throat	<u>          </u>	<u>          </u>
Gimbal Point (Station) - In.		
Upper Nozzle		
X <sub>0</sub>	<u>1445.0</u>	<u>18.063</u>
Y <sub>0</sub>	<u>0.0</u>	<u>0.0</u>
Z <sub>0</sub>	<u>443.0</u>	<u>5.538</u>
Lower Nozzles		
X <sub>0</sub>	<u>1468.170</u>	<u>18.352</u>
Y <sub>0</sub>	<u>53.00</u>	<u>0.663</u>
Z <sub>0</sub>	<u>342.640</u>	<u>4.283</u>
Null Position - Deg.		
Upper Nozzle		
Pitch	<u>16.0</u>	<u>16.0</u>
Yaw	<u>0.0</u>	<u>0.0</u>
Lower Nozzle		
Pitch	<u>10.0</u>	<u>10.0</u>
Yaw	<u>3.5</u>	<u>3.5</u>

TABLE III (Cont'd)

a. Orbiter Model

MODEL COMPONENT: NOZZLES -- N<sub>9</sub>

GENERAL DESCRIPTION: The two orbiter maneuvering system nozzles are level-bell shaped and are located at the aft end of the OMS pods. These dimensions are external and are not to be used for plume tests.

MODEL SCALE: 0.0125

DRAWING NUMBER: MC62100009, VC70-000002, VL70-008401, Aerojet 1181900

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane	<u>56.00</u>	<u>0.700</u>
Throat to Exit Plane	<u>56.00</u>	<u>0.700</u>
Diameter - In.		
Exit		
Throat	<u>45.09</u>	<u>0.564</u>
Inlet		
Area - ft <sup>2</sup>		
Exit		
Throat	<u>11.09</u>	<u>0.139</u>
Gimbal Point (Station) - In.		
X	<u>1518.0</u>	<u>18.975</u>
Y	<u>88.0</u>	<u>1.100</u>
Z	<u>492.0</u>	<u>6.150</u>
Null Position - Deg.		
Pitch	<u>15.82°</u>	<u>15.82°</u>
Yaw	<u>6.5°</u>	<u>6.5°</u>

TABLE III (Cont'd)

a. Orbiter model

MODEL COMPONENT RUDDER - R<sub>18</sub>

GENERAL DESCRIPTION The rudder is a secondary movable airfoil at the trailing edge of the vertical fin that imparts yaw forces. This dimensional data was calculated from the OML master dimensions 7-19-74.

MODEL SCALE: 0.0125

DRAWING NUMBER \_\_\_\_\_

DIMENSIONS	FULL SCALE	MODEL SCALE
Area = Ft <sup>2</sup>	<u>97.148</u>	<u>0.015</u>
Span (equivalent) , In.	<u>198.614</u>	<u>2.483</u>
Inb'd equivalent chord, In.	<u>90.07</u>	<u>1.126</u>
Outb'd equivalent chord , In.	<u>50.80</u>	<u>0.635</u>
Ratio movable surface chord/ total surface chord	<u>                    </u>	<u>                    </u>
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	<u>                    </u>	<u>                    </u>
Leading Edge	<u>34.833</u>	<u>34.833</u>
Trailing Edge	<u>26.249</u>	<u>26.249</u>
Hingeline (MAC X AREA, Ft <sup>3</sup> )	<u>34.833</u>	<u>34.833</u>
Area Moment ( <del>MAC X AREA</del> )	<u>584.99</u>	<u>0.0011</u>
Mean Aerodynamic Chord, In.	<u>72.260</u>	<u>0.903</u>

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TABLE III (Cont'd)

a. Orbiter Model

MODEL COMPONENT: VERTICAL - V 23 (Outer Mold Lines)

GENERAL DESCRIPTION: The vertical tail is double-wedge shaped and mounted dorsally on the aft fuselage. These data correspond to configuration 140C.

MODEL SCALE: 0.0125DRAWING NUMBER: VC70-000002, master dimensions.

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA		
Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.253</u>	<u>0.065</u>
Span (Theo) - In.	<u>315.72</u>	<u>3.947</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>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
0.25 Element Line	<u>41.13</u>	<u>41.13</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>3.356</u>
Tip (Theo) WP	<u>108.47</u>	<u>1.356</u>
MAC	<u>199.81</u>	<u>2.498</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>18.294</u>
W.P. of .25 MAC	<u>635.52</u>	<u>7.944</u>
B.L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle - Deg.	<u>14.92</u>	<u>14.92</u>
Leading Edge Radius	<u>2.00</u>	<u>0.0250</u>
Void Area	<u>13.17</u>	<u>0.002</u>
Blanketed Area	<u>0.0</u>	<u>0.0</u>

TABLE III (Cont'd)

a. Orbiter Model

MODEL COMPONENT: WING-W<sub>117</sub>

GENERAL DESCRIPTION:

NOTE: Identical to W<sub>117</sub>, except airfoil thickness. Dihedral angle is along trailing edge of wing. Geometric twist = 0.

MODEL SCALE: 0.0125

TEST NO.

DMG. NO. WDC-000140A -000200

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area (Theo.) Ft<sup>2</sup>

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

EXPOSED DATA

Area (Theo) Ft<sup>2</sup>

Span, (Theo) In. BP108

Aspect Ratio

Taper Ratio

Chords

Root BP108

Tip 1.00  $\frac{b}{2}$

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root  $\frac{b}{2}$  =

Tip  $\frac{b}{2}$  =

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area Ft<sup>2</sup>

Leading Edge Intersects Fus M. L. @ Sta

Leading Edge Intersects Wing @ Sta

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	FULL-SCALE	MODEL SCALE
Area (Theo.) Planform	2690.00	0.420
Span (Theo)	935.68	11.709
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees		
Sweep Back Angles, degrees		
Leading Edge	45.00	45.00
Trailing Edge	- 10.056	- 10.056
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.O.O.	689.24	8.616
Tip, (Theo) B.P.	137.85	1.723
MAC	474.81	5.935
Fus. Sta. of .25 MAC	1136.83	14.210
W.P. of .25 MAC	290.58	3.632
B.L. of .25 MAC	182.13	2.277
Area (Theo)	1751.50	0.274
Span, (Theo) In. BP108	720.68	9.009
Aspect Ratio	2.059	2.059
Taper Ratio	0.245	0.245
Chords		
Root BP108	562.09	7.026
Tip 1.00 $\frac{b}{2}$	137.85	1.723
MAC	392.83	4.910
Fus. Sta. of .25 MAC	1185.98	14.825
W.P. of .25 MAC	294.30	3.679
B.L. of .25 MAC	251.77	3.147
Root $\frac{b}{2}$ =	0.113	0.113
Tip $\frac{b}{2}$ =	0.120	0.120
Leading Edge Cuff		
Planform Area Ft <sup>2</sup>	113.18	0.0177
Leading Edge Intersects Fus M. L. @ Sta	500.0	6.250
Leading Edge Intersects Wing @ Sta	100.0	1.250

TABLE III (Cont'd)

a. Orbiter Model

MODEL COMPONENT : ORBITER TAILCONE - TC<sub>1</sub>

GENERAL DESCRIPTION : Fairing mounted on orbiter fuselage base for ferry missions configuration.

MODEL SCALE: 0.0125

DRAWING NUMBER : SS-A01452

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length	<u>435.76</u>	<u>5.447</u>
Max Width	<u>300.80</u>	<u>3.76</u>
Max Depth Height	<u>266.40</u>	<u>3.33</u>
Fineness Ratio	<u></u>	<u></u>
Area - Ft <sup>2</sup>	<u></u>	<u></u>
Max. Cross-Sectional	<u>462.37</u>	<u>0.0722</u>
Planform	<u>635.803</u>	<u>0.0993</u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>

TABLE III (Cont'd)

b. Carrier Model

MODEL COMPONENT: ATTACH STRUCTURE - AT96

GENERAL DESCRIPTION: Forward attach structure between the Orbiter and Carrier, faired struts,  $i_0 = 4^\circ$

MODEL SCALE: 0.0125

DRAWING NO.: Boeing Dwg. 747-MD-654, SS-AC1559-4, -18, -35

DIMENSIONS:

		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
$i_0$ , Incidence angle, deg. (Orbiter FRL to 747 FRL)		4.0	4.0
Fairing chord, right and left, In.		31.0	0.388
Fairing T/C		0.226	0.226
Carrier attach points, In.	BSTA	689.4	8.617
	BWL	372.0	4.650
	BL	66.3	0.829
Orbiter attach points, In.	$X_0$	388.15	4.852
	$Z_0$	283.11	3.539
	Y	0.0	0.0
	BSTA	681.52	8.519
	BWL	480.4	6.005

TABLE III (Cont'd)

b. Carrier Model

MODEL COMPONENT: ATTACH STRUCTURE - AT97

GENERAL DESCRIPTION: Forward attach structure between the Orbiter and Carrier, faired struct,  $i_0 = 6^\circ$

MODEL SCALE: 0.0125

DRAWING NO.: Boeing Dwg 747-MD-654, SS-A0159-3, -11, -35

DIMENSIONS:

		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
$i_0$ , Incidence angle, deg. (Orbiter FRL to 747 FRL)		6.0	6.0
Fairing chord, right and left, In.		31.0	0.388
Fairing t/c		0.226	0.226
Carrier attach points, In.	BSTA	689.4	8.617
	BWL	372.0	4.650
	BL	66.3	0.829
Orbiter attach point, In.	$X_0$	388.15	4.852
	$Z_0$	283.11	3.539
	$Y_0$	0.0	0.0
	BSTA	684.88	8.561
	BWL	512.72	6.409



TABLE III (Cont'd)

b. Carrier Model

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>98</sub>

GENERAL DESCRIPTION: Forward attach structure between the Orbiter and Carrier, faired struts,  $i_0 = 8^\circ$

MODEL SCALE: 0.0125

DRAWING NO.: Boeing Dwg 747-MD-654, SS-A01559-5, -19, -35

DIMENSIONS:		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
$i_0$ , Incidence angle, deg. (Orbiter FRL to 747 FRL)		8.0	8.0
Fairing chord, right and left, In.		31.0	0.388
Fairing t/c		0.226	0.226
Carrier attach points, In.	BSTA	689.4	8.617
	BWL	372.0	4.650
	BL	66.3	0.829
Orbiter attach points, In.	$X_0$	388.15	4.852
	$Z_0$	283.11	3.539
	$Y_0$	0.0	0.0
	BSTA	689.4	8.617
	BWL	544.72	6.809

TABLE III (Cont'd)

b.. Carrier Model

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>99</sub>

GENERAL DESCRIPTION: Aft attach structure between orbiter and carrier, same as AT<sub>95</sub> with a single fairing covering the main strut and drag strut on each side, and a fairing on the sway brace.

MODEL SCALE: 0.0125

DRAWING NO.: Boeing Dwg 747-MD-658, W-1135A-11, -12, SS-A01559-33, -34, -35

DIMENSIONS:

		<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Orbiter attach points, In.	X <sub>0</sub>	1317.0	16.462
	Y <sub>0</sub>	± 96.51	± 1.206
	Z , BL	267.5	3.344
	BSTA	1607.0	20.087
	BWL	400.0	5.000
Main fairing:			
Root chord, In.		250.0	3.125
T/c of root chord		0.09	0.09
Tip chord, In.		120.0	1.500
T/c of tip chord		0.14	0.14
Sway brace:			
Chord, In.		31.0	0.388
T/c		0.226	0.226

TABLE III (Cont'd)

MODEL COMPONENT : BCDY - B<sub>27.8</sub> b. Carrier Model

GENERAL DESCRIPTION : Body 74-7 Project with A.P.V.

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MODEL SCALE: 0.0125 MODEL. Dwg: 13181-1

DRAWING NUMBER : 65013609, 1318-54

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length , In.	<u>2702.0</u>	<u>33.78</u>
Max Width , In.	<u>255.3</u>	<u>3.19</u>
Max Depth	<u>          </u>	<u>          </u>
Fineness Ratio	<u>9.73</u>	<u>9.73</u>
Area - Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>14.093</u>	<u>0.002</u>
Base	<u>          </u>	<u>          </u>

TABLE III (Cont'd)

b. Carrier Model

MODEL COMPONENT: WING - W<sub>44.1</sub>

GENERAL DESCRIPTION: Sweet 747 wing

MODEL SCALE: 0.0125

MODEL DWG: 1318I-1

DRAWING NO.: 65013609, 1318-46

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
<b>Total Data:</b>		
Area (Theo.), Ft <sup>2</sup>		
Planform	5500.00	0.860
Span (Theo.), In.	2348.0	29.35
Aspect ratio	6.96	6.96
Incidence angle, deg.	7.0	7.0
Chords, In.:		
MAC	327.8	4.10
Fus. sta. of 0.25 MAC	1339.87	16.75
W.P. of 0.25 MAC	190.42	2.38

TABLE III (Cont'd)

b. Carrier Model

MODEL COMPONENT: VERTICAL -  $V_{9.1}$

GENERAL DESCRIPTION: Swept vertical tail

MODEL SCALE: 0.0125

MODEL DWG: 1318I-1

DRAWING NO.: 65C13609, 1318-8

DIMENSIONS:

FULL SCALE

MODEL SCALE

TOTAL DATA

Area (Theo), $\text{Ft}^2$	630.0	0.098
Span (Theo), In.	386.5	4.830
Sweepback angles, deg., L.E.	50.12	50.12
Aspect ratio	1.25	1.25
Chord:		
Root (Theo), WP, In.	461.67	5.77
Tip (Theo), WP, In.	157.0	1.96
Mean Aerodynamic Chord, In.	334.16	4.20
Fus. Sta. of 0.25 MAC	2529.6	31.62
W.P. of 0.25 MAC	528.0	6.60

TABLE III (Cont'd)  
 b. Carrier Model

MODEL COMPONENT: HORIZONTAL TAIL - H<sub>15</sub>

GENERAL DESCRIPTION: Sweet 747 horizontal stabilizer

MODEL SCALE: 0.0125

MODEL NO.: 1318I-1

DRAWING NO.: 65C13609, 1318-5

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Area (Theo.), ft <sup>2</sup>		
Planform	1470.0	0.230
Span (Theo), In.	873.00	10.91
Aspect ratio	3.6	3.6
Chords:		
MAC, In.	271.6	3.40
Fus. Sta. of 0.25 MAC, In.	2563.9	32.05
W.P. of 0.25 MAC, In.	175.0	2.19
Sweepback angle of 0.25 MAC, deg.	37.5	37.5

TABLE III (Cont'd)  
 b. Carrier Model

MODEL COMPONENT: HORIZONTAL TAIL - H<sub>15.6</sub>

GENERAL DESCRIPTION: Horizontal tail, H<sub>15</sub>, with vertical fins on each  
 tip at body B.L. 427.3

MODEL SCALE: 0.0125

MODEL DWG: 1318I-1

DRAWING NO.: 65C13609, 1318-5, 1318-70

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Fin Exposed Data (one side):		
Area = Ft <sup>2</sup>	200.0	0.0312
Span, In.	252.0	3.15
Chord, In.	113.6	1.42

TABLE III (Cont'd)  
 b. Carrier Model

MODEL COMPONENT: M<sub>25</sub>

GENERAL DESCRIPTION: Inboard 747, JT9D nacelle strut

MODEL SCALE: 0.0125

MODEL DWG: 1318I-1

DRAWING NO.: 65C13609, 1318-60

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Wing B.L. of nacelle C <sub>L</sub> , In.	470.0	5.875
Cant angle deg., inboard	2.0	2.0



TABLE III (Cont'd)

b. Carrier Model

MODEL COMPONENT: M<sub>26</sub>

GENERAL DESCRIPTION: Outboard 717, JT9D

Strut

MODEL SCALE: 0.0125

MODEL DWG: 1318I-1

DRAWING NO.: 65C13609, 1318-60

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
W L of C <sub>L</sub> , In.	834.0	10.425
Cant angle, deg. inboard	2.0	2.0

TABLE III (Cont'd)

b. Carrier Model

MODEL COMPONENT: N57

GENERAL DESCRIPTION: Inboard fan cowl and primary 747 nacelle, flow-through type.

MODEL SCALE: 0.0125

MODEL DWG: 1318I-1

DRAWING NO.: 65013609, 1318-60

TABLE III (Cont'd)

b. Carrier Model

MODEL COMPONENT: N<sub>58</sub>

MODEL DESCRIPTION: Outboard fan cowl and primary 747 nacelle, flow-through type.

MODEL SCALE: 0.0125

MODEL DWG: 1318I-1

DRAWING NO.: 65C13609, 1318-60

TABLE III (Cont'd)

b. Carrier Model

MODEL COMPONENT: SPOILERS -  $S_{1-12}$

GENERAL DESCRIPTION: Multi-panel flight spoilers. Four outboard and two inboard spoilers per side. Subscript denotes spoiler panel  $S_1$  is the most outboard L.H. panel and  $S_{12}$  is most outboard R.H. panel.

MODEL SCALE: 0.0125

MODEL DWG: 1318I-1

DRAWING NO.: 65C13609, 1318-56

DIMENSIONS: (ONE PANEL)	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Outboard $S_{1-4}$ and $S_{9-12}$ ( $\text{Ft}^2$ )	21.48	0.0034
Span (equivalent), In.	75.00	0.94
Chord, In.	41.28	0.52
Inboard, $S_{5-6}$ and $S_{7-8}$ ( $\text{Ft}^2$ )	35.31	0.0055
Span (equivalent), In.	90.00	1.130
Chord, In.	56.52	0.71

TABLE III. (Continued)

b. Carrier Model

MODEL COMPONENT: T<sub>14</sub>

GENERAL DESCRIPTION: Flap track fairings, four on each side

MODEL SCALE: 0.0125

DRAWING NO.: 65C13609, 1318-67

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
WBL of Track No. 1, In.	235.3	2.94
2, In.	353.0	4.41
3, In.	585.0	7.31
4, In.	743.6	9.30
Distance from wing		
Trailing edge to:		
Track trailing edge, In.	44.0	0.55

TABLE III. Concluded.

MODEL COMPONENT : Mounting Strut - S<sub>1</sub>  
 GENERAL DESCRIPTION : Blade strut attachment to orbiter aft upper fuselage where vertical tail is normally mounted. Strut leading edge and lower trailing edge conform to the vertical tail planform. Airfoil section is blunted diamond. The tip of the strut mounts to a sting.  
 MODEL SCALE: 0.0125  
 DRAWING NUMBER: Rockwell W-11335H

DIMENSIONS :	MODEL SCALE
Theoretical intersection of L.E. with fuselage ML, in.	
$x_0$	15.973
$z_0$	6.250
Leading edge sweep angle, deg.	45.0
Trailing edge sweep angle, deg.	45.0
chord length, in.	2.38
maximum thickness, in.	0.52
distance from L.E. to maximum thickness, in.	1.42
position of sting $C_L$ , in. $Z_0$	12.835

TABLE IV.  
CA23B DATASET DESCRIPTION  
(INTERPOLATED/INCREMENTED DATASETS)

DATASET TYPE	DESCRIPTION
RNHXXX	Stability axis coefficient data for 747 carrier.
ANHXXX	Body axis coefficient data for 747 carrier.
BNHXXX	Pressure coefficient data for 747 carrier.
CNHXXX	Stability axis coefficient data for Orbiter.
DNHXXX	Body axis coefficient data for Orbiter.
ENHXXX	Pressure coefficient data for Orbiter.
UNH*XX	Interpolated data for 747 carrier.
VNH*XX	Interpolated data for Orbiter ( $\alpha_c$ 2nd indep. var.)
ZNH*XX	Interpolated data for Orbiter ( $\alpha_0$ 2nd indep. var.)
PNH*XX	Incremental proximity effects data for 747 carrier.
TNH*XX	Incremental proximity effects for Orbiter. ( $\alpha_0$ 2nd indep. var.)
4NH*XX	Incremental proximity effects for Orbiter. ( $\alpha_c$ 2nd indep. var.)

\* 0 = IORB interpolation

X = IORB and DX interpolation

Y = IORB and DY interpolation

M = MACH interpolation

TABLE V.

CA23B COEFFICIENT SCHEDULE

Dataset Type	Dataset Sequence	1st ID.	2nd ID.	COEFFICIENTS																
				1	2	3	4	5	6	7	8	9	10							
RNHXXX	004-005	DZ	ALPHAC	MACH	CL	CD	CLM	CY	CYN	CBL										
	008-025,027-042			MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL							
ANHXXX	004-005			BETAC	PHIC	CA	CN	CSL	CLN											
	008-025,027-042			BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN									
BNHXXX	004-005			XZCP	XYCP	CPCC	CPSB1	CPSB2												
	008-025,027-042			XZCP	XYCP	CPCC	CPSB1	CPSB2												
CNHXXX	008-025,027-042			MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL							
	043-046			MACH	CL	CD	CLM	CY	CYN	CBL										
DNHXXX	047-048	DX	ALPHAO	MACH	CL	CD	CLM	CY	CYN	CBL										
	008-025,027-042	DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN									
ENHXXX	043-046	DZ	ALPHAO	BETAO	PHIO	CA	CN	CSL	CLN											
	047-048	DX	ALPHAO	BETAO	PHIO	CA	CN	CSL	CLN											
UNHXXX	008-025,027-042	DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2								
	043-046	DZ	ALPHAO	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2								
UNHXXX	047-048	DX	ALPHAO	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2								
	008-011,013	DZ	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL							
UNHXXX	020-025,027																			
	034-035,040																			
UNHXXX	010,013-017																			
	027-031,034																			
UNHXXX	010,013,018-019																			
	027, 032-034																			
UNHXXX	040-042																			





TABLE V.  
CA23B COEFFICIENT SCHEDULE (Concluded)

Dataset Type	Dataset Sequence	1st ID.	2nd ID.	COEFFICIENTS																
				1	2	3	4	5	6	7	8	9	10							
TNHOXX	008-011,013	DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCYN	DCBL											
	020-025,027																			
	034-040																			
TNHXXX	010,013-017																			
	027-031,034																			
TNHYXX	010,013,018-019																			
	027,032-034																			
4NHOXX	008-011,013		ALPHAC																	
	020-025,027																			
	034-040																			
4NHXXX	010,013-017																			
	027-031,034																			
4NHYXX	010,013,018-019																			
	027,032-034																			

NOTE: IORB = ALPHAO ( $\alpha_0$ ) - ALPHAC ( $\alpha_c$ )

IORB in parameter block is a nominal value.

ID = independent variable.

0 = IORB interpolation

X = IORB and DX interpolation

Y = IORB and DY interpolation

M = Mach interpolation

TABLE VI.

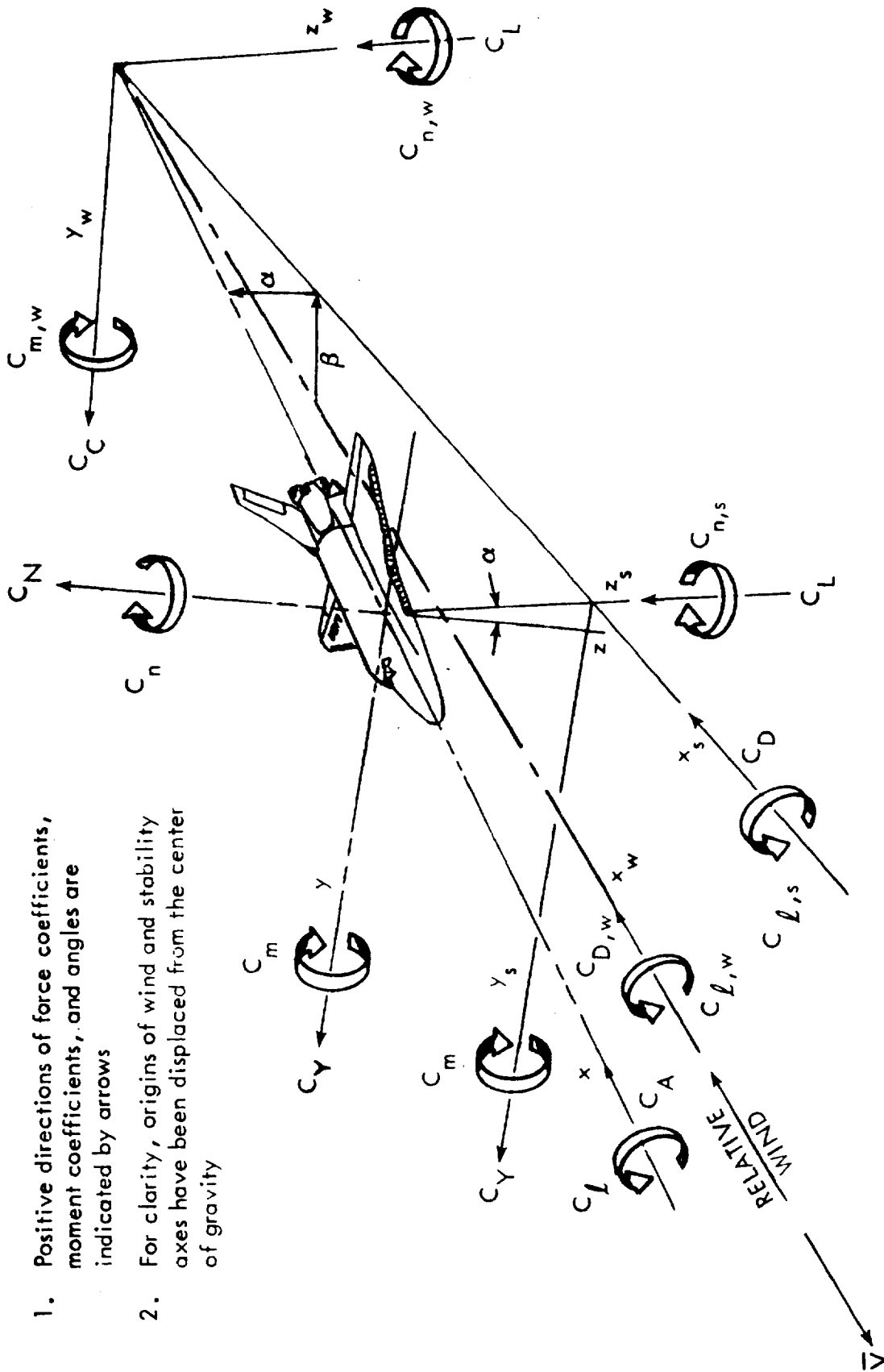
## INCREMENTAL DATA SET SUMMARY

(refer to Data Reduction)

$\Delta C_{747}^{(ORB)}$	$C_{747}^{(ORB)}$	$C_{747}^{(ISOL)}$	$\Delta C_{ORB}^{(747)}$	$C_{ORB}^{(747)}$	$C_{ORB}^{(ISOL)}$
PNH008	UNH008	RNH004	TNH008	ZNH008	CNH043
PNH009	UNH009	RNH004	TNH009	ZNH009	CNH043
PNH010	UNH010	RNH005	TNH010	ZNH010	CNH043
PNHX10	UNHX10	RNH005	TNHX10	ZNHX10	CNH043
PNHY10	UNHY10	RNH005	TNHY10	ZNHY10	CNH043
PNH011	UNH011	RNH004	TNH011	ZNH011	CNH043
PNH013	UNH013	RNH005	TNH013	ZNH013	CNH043
PNHX13	UNHX13	RNH005	TNHX13	ZNHX13	CNH043
PNHY13	UNHY13	RNH005	TNHY13	ZNHY13	CNH043
PNHX14	UNHX14	RNH005	TNHX14	ZNHX14	CNH043
PNHX15	UNHX15	RNH005	TNHX15	ZNHX15	CNH043
PNHX16	UNHX16	RNH005	TNHX16	ZNHX16	CNH043
PNHX17	UNHX17	RNH005	TNHX17	ZNHX17	CNH043
PNHY18	UNHY18	RNH005	TNHY18	ZNHY18	CNH043
PNHY19	UNHY19	RNH005	TNHY19	ZNHY19	CNH043
PNH020	UNH020	RNH005	TNH020	ZNH020	CNH046
PNH021	UNH021	RNH004	TNH021	ZNH021	CNH046
PNH022	UNH022	RNH005	TNH022	ZNH022	CNH046
PNH023	UNH023	RNH005	TNH023	ZNH023	CNH046
PNH024	UNH024	RNH004	TNH024	ZNH024	CNH046
PNH025	UNH025	RNH004	TNH025	ZNH025	CNH046
PNH027	UNH027	RNH005	TNH027	ZNH027	CNH045
PNHX27	UNHX27	RNH005	TNHX27	ZNHX27	CNH045
PNHY27	UNHY27	RNH005	TNHY27	ZNHY27	CNH045
PNHX28	UNHX28	RNH005	TNHX28	ZNHX28	CNH045
PNHX29	UNHX29	RNH005	TNHX29	ZNHX29	CNH045
PNHX30	UNHX30	RNH005	TNHX30	ZNHX30	CNH045
PNHX31	UNHX31	RNH005	TNHX31	ZNHX31	CNH045
PNHY32	UNHY32	RNH005	TNHY32	ZNHY32	CNH045
PNHY33	UNHY33	RNH005	TNHY33	ZNHY33	CNH045
PNH034	UNH034	RNH005	TNH034	ZNH034	CNH045
PNHX34	UNHX34	RNH005	TNHX34	ZNHX34	CNH045
PNHY34	UNHY34	RNH005	TNHY34	ZNHY34	CNH045
PNH035	UNH035	RNH005	TNH035	ZNH035	CNH045
PNH036	UNH036	RNH005	TNH036	ZNH036	CNH045
PNH037	UNH037	RNH004	TNH037	ZNH037	CNH045
PNH038	UNH038	RNH005	TNH038	ZNH038	CNH044
PNH039	UNH039	RNH005	TNH039	ZNH039	CNH043
PNH040	UNH040	RNH005	TNH040	ZNH040	CNH043

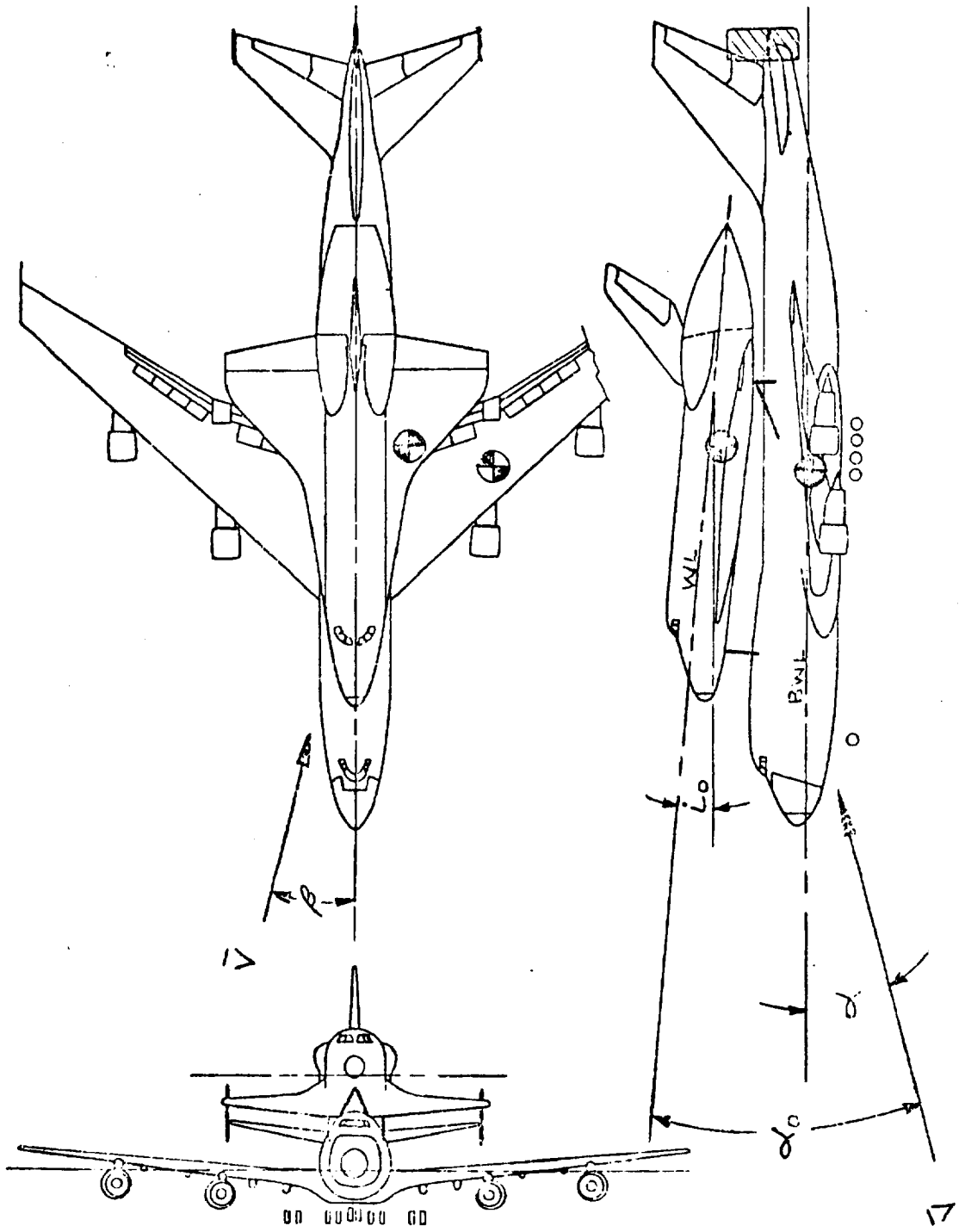
**Notes:**

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



a. Orbiter

Figure 1. - Axis Systems.



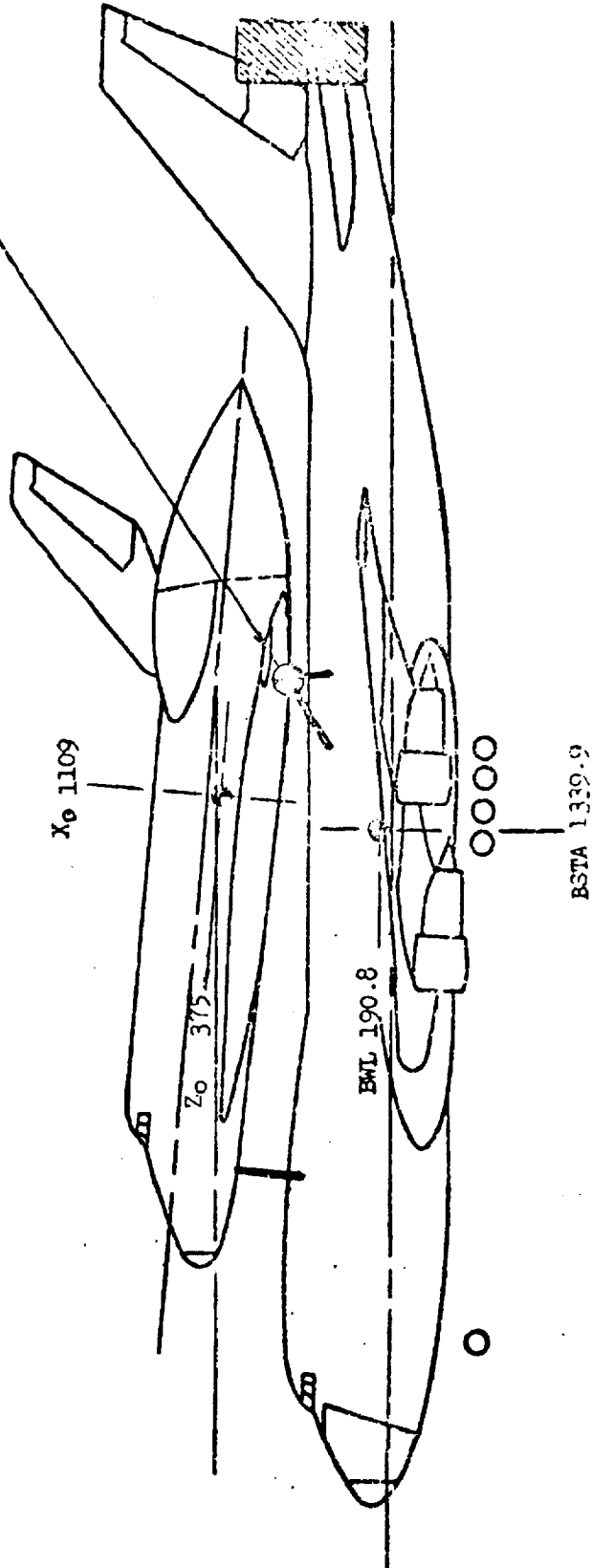
b. Orbiter/747 angular relations

Figure 1. - Concluded.

REFERENCE DIMENSIONS (FS)

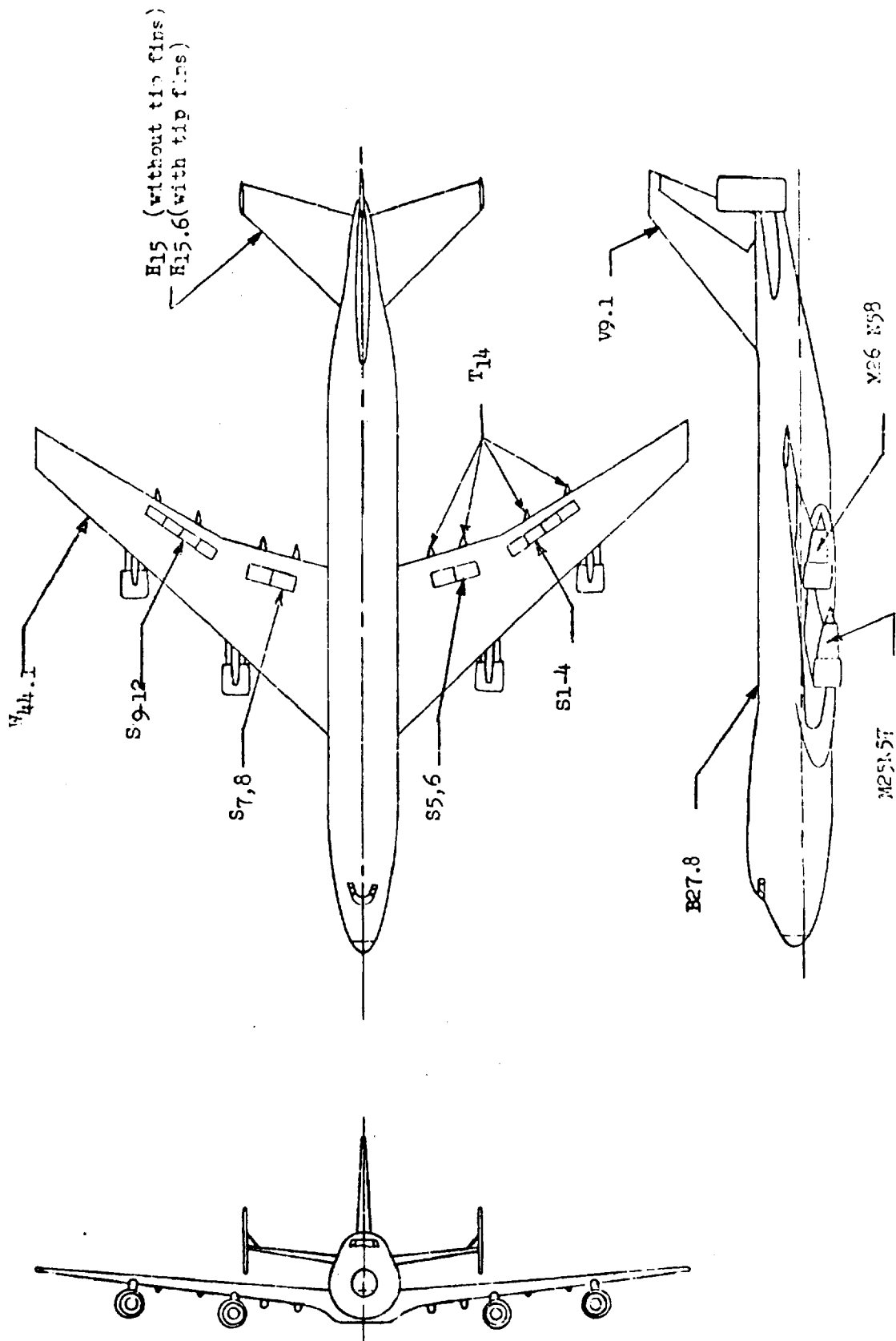
	ORBITER	747 CARRIER
WING AREA ~ Ft <sup>2</sup>	2600	5500
MAC (c) ~ INCHES	474.61	327.75
SPAN (b) ~ INCHES	936.68	2348.04
MOMENT REFERENCE CENTER	67.5% LR	25.0 % C
F.S. ~ INCHES	1109.0	1339.9
W.P. ~ INCHES	375.0	190.8

BWL 400  
BSTA 1667  
(X<sub>0</sub> 26 32)  
(Z<sub>0</sub> 267 5)  
(X<sub>0</sub> 131)



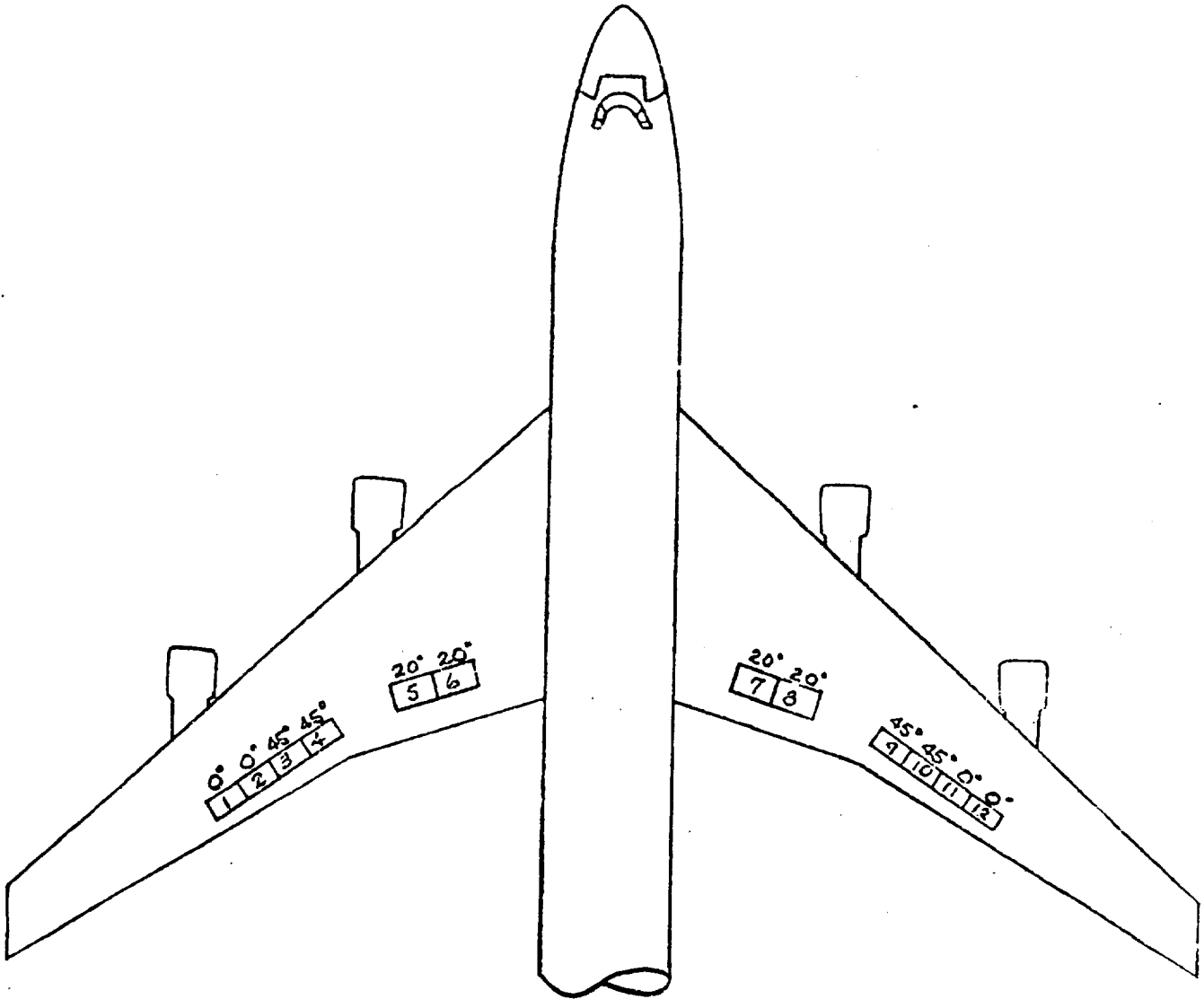
a. Orbiter/747 flight test configuration reference dimensions

Figure 2. - Model Sketches



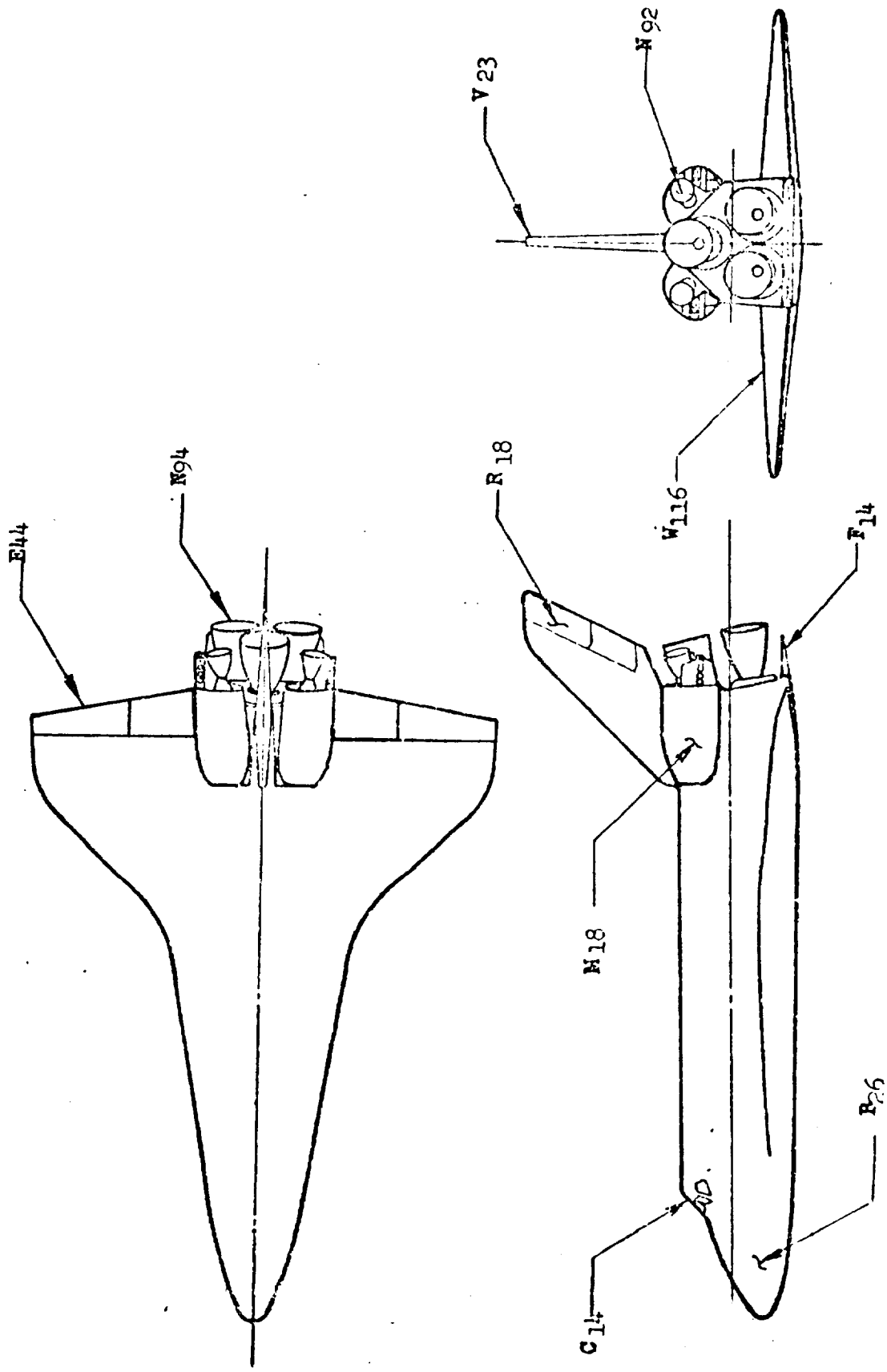
b. 747-100 configuration (Model 1318I-1)

Figure 2. - Continued.



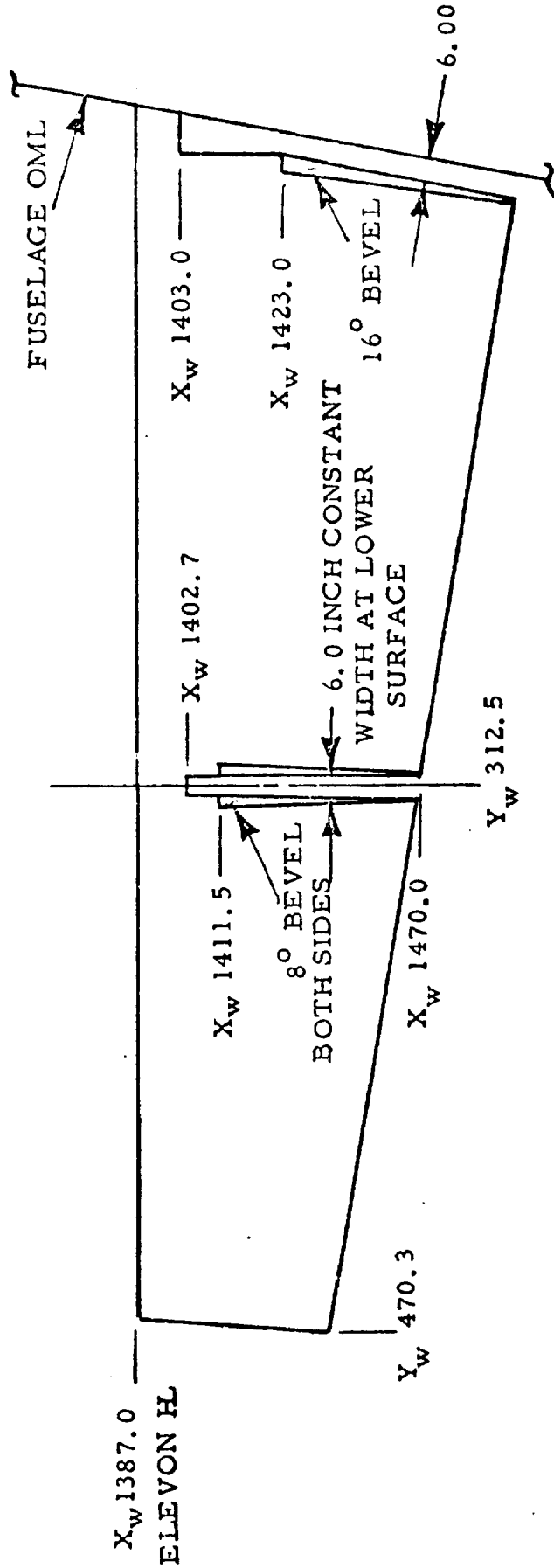
c. In-flight spoiler configuration  
 Figure 2. - Continued.





3. SSV Orbiter Configuration (VC70-000002)  
 Figure 2. - Continued.

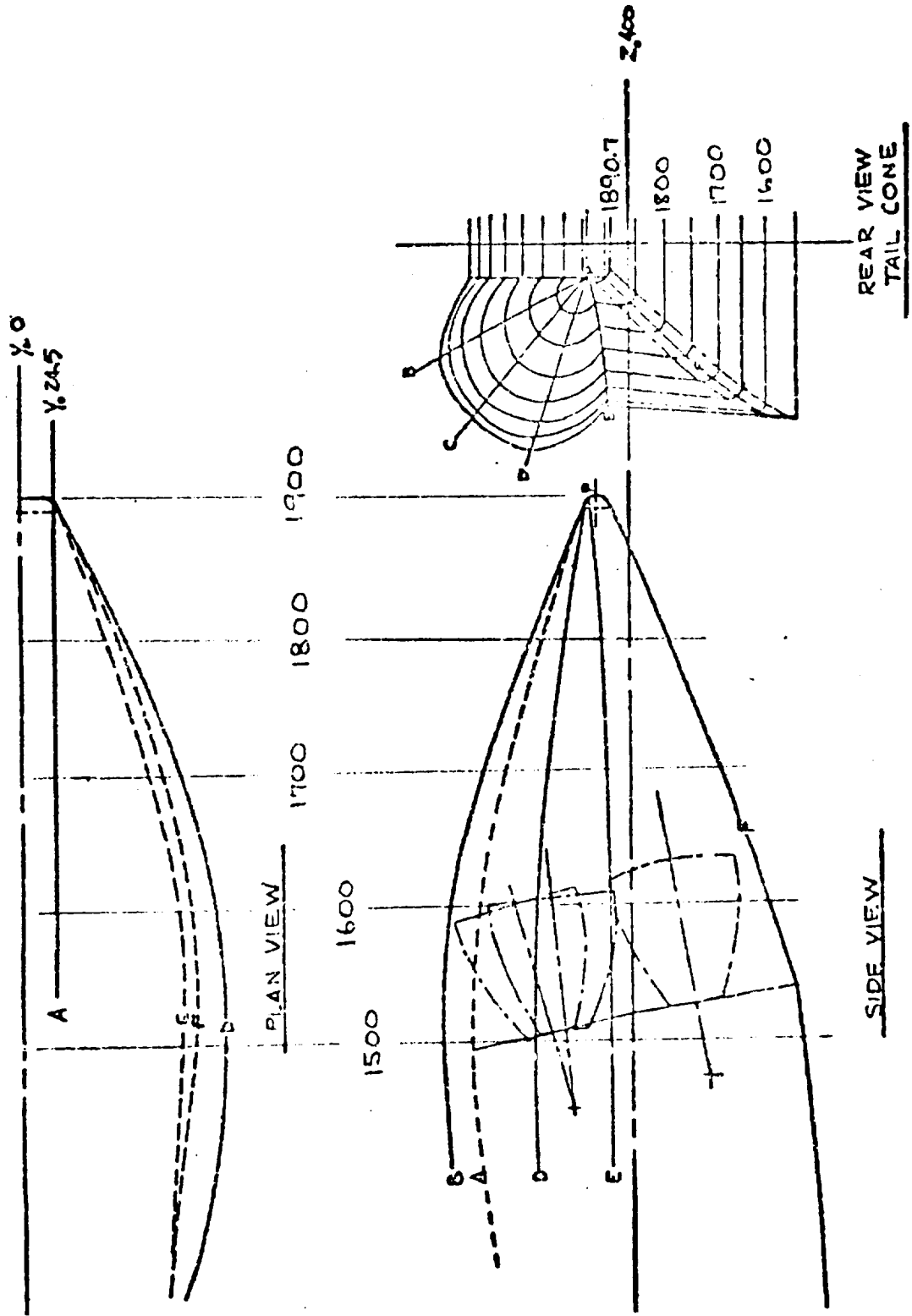
E<sub>44</sub> elevon with 6.0 inch gaps installed. Flipper doors, centerbody pieces, and tip seals are not simulated.



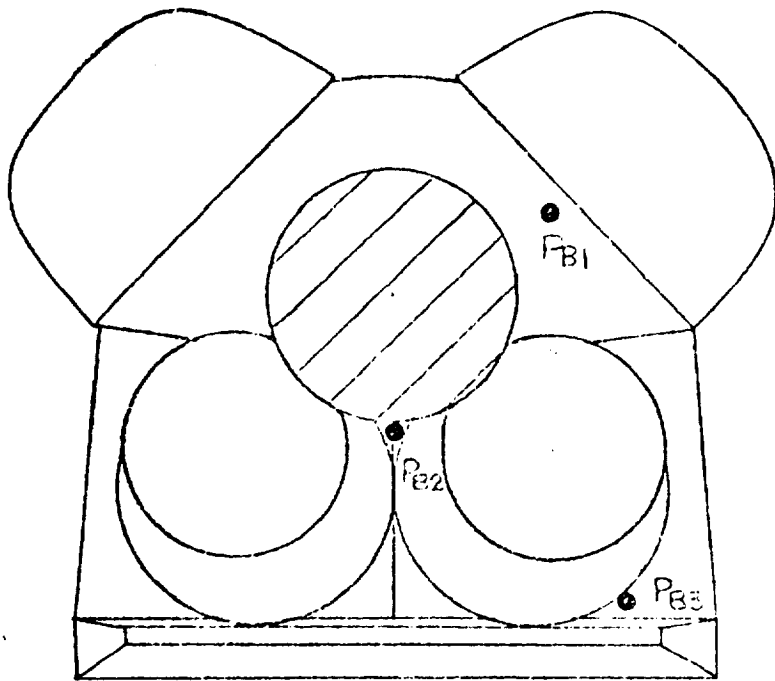
(ALL DIMENSIONS ARE FULL SCALE, INCHES)

(VIEW IS PERPENDICULAR TO WING REFERENCE PLANE)

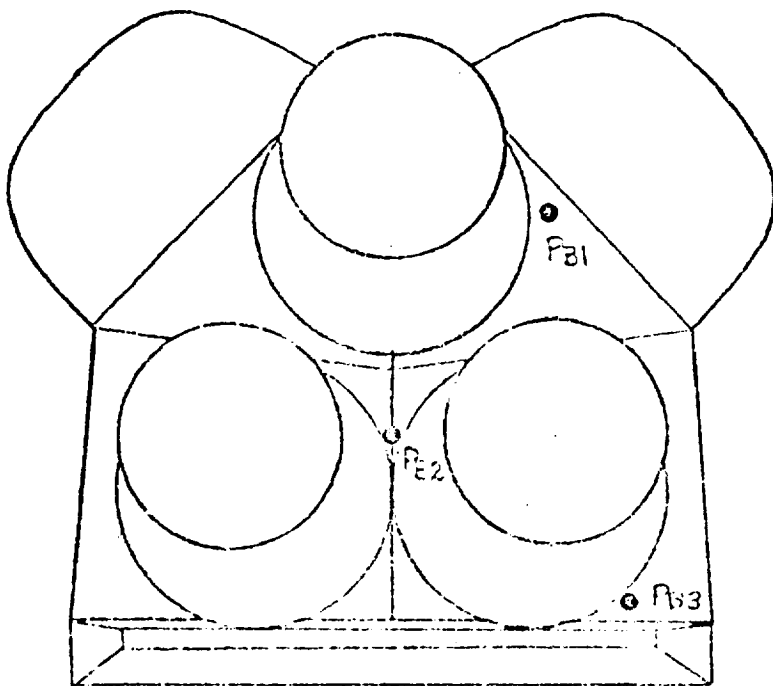
e. Elevon - E<sub>44</sub>  
Figure 2. - Continued.



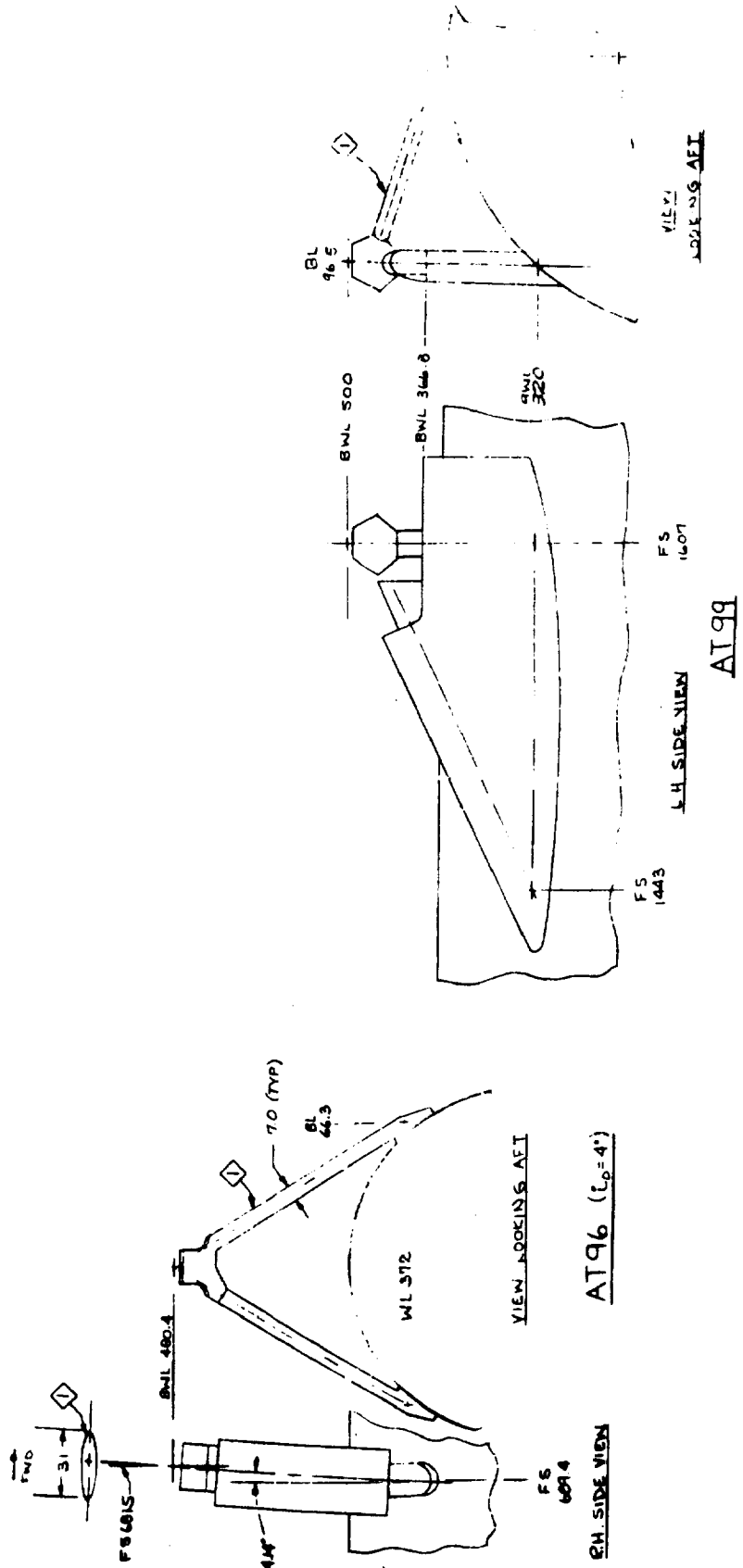
f. Orbiter tail cone TC<sub>4</sub> (X<sub>3B</sub>)  
 Figure 2. - Continued.



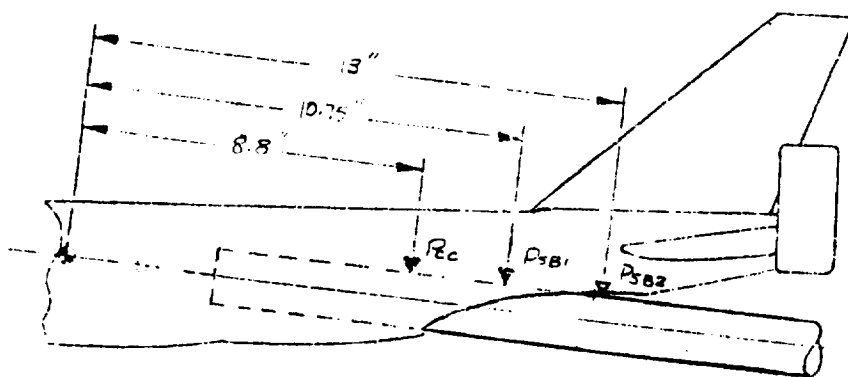
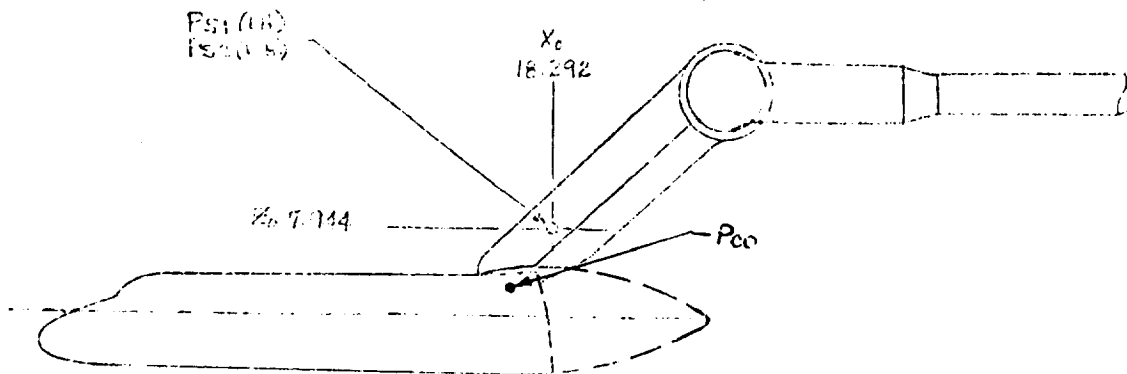
STING MOUNTED



g. Orbiter base pressure tap locations  
Figure 2. - Continued.



h. Orbiter/747 attach hardware AT96 and AT99  
 Figure 2. - Continued.



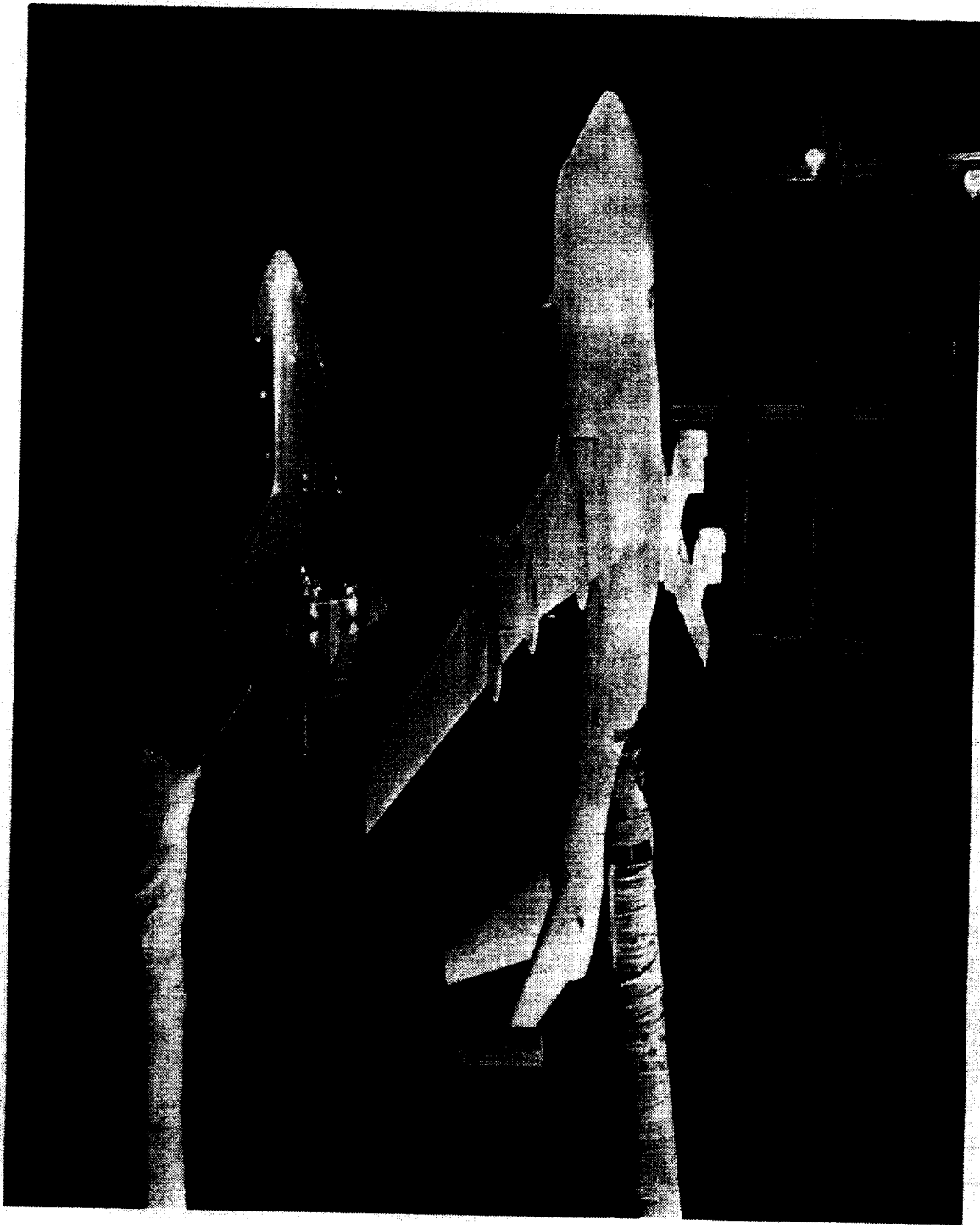
ORIGINAL PAGE IS  
OF POOR QUALITY

i. 747 sting cavity and orbiter blade strut pressure tap locations  
Figure 2. - Concluded.



a. Orbiter separation sequence  
Figure 3. - Model Installation Photographs.

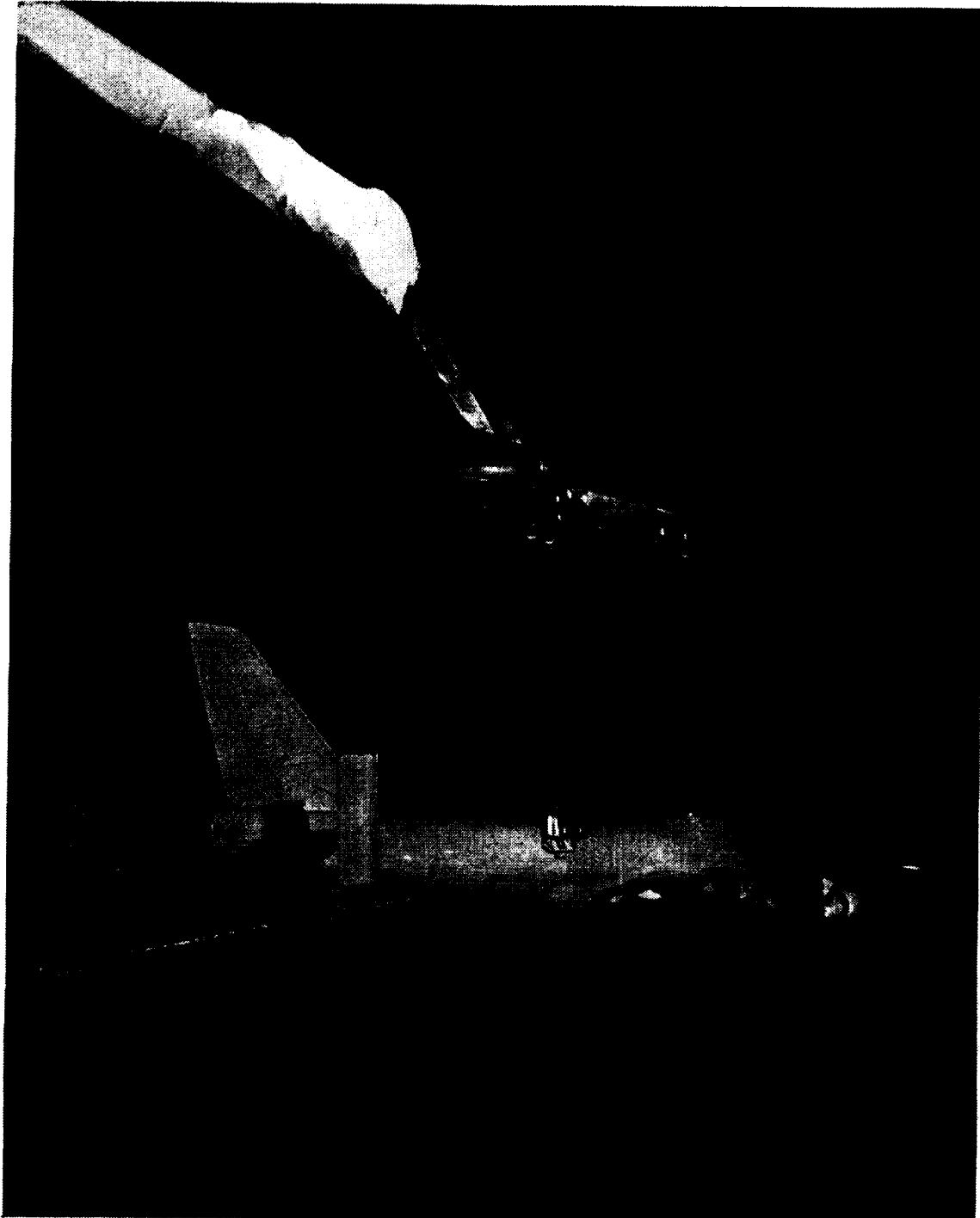
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OF POOR QUALITY



b. Separation of Orbiter with TC<sub>4</sub> in proximity to 747 carrier

Figure 3. - Continued.





c. Three-quarter rear view showing aft attach fairings on 747 with Orbiter separated

Figure 3. - Continued.

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- POOR QUALITY



d. Orbiter Without TC<sub>4</sub> in proximity to 747 carrier  
Figure 3. - Continued.

APPENDIX  
TABULATED SOURCE DATA

Tabulated plotted data may be obtained upon  
request from Data Management Services.



REFERENCE DATA

SREF = 5500.0000 SQ.FT.      XMRP = 1339.9000 IN. XC      STAB = -1.000  
 LREF = 327.7800 IN.      YMRP = .0000 IN. YC      RUDDER = .000 MACH = .600  
 BREF = 2348.0400 IN.      ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO.    41/ 0    RN/L = 3.40    GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	CL	CD	CLM	CY	CYN	CBL
131.927	59363	-.49054	.07664	.25812	.00224	-.00282	.00054	
131.734	59393	-.36247	.06026	.22770	.00350	-.00267	.00015	
131.585	59370	-.27172	.05288	.20400	.00513	-.00249	-.00042	
131.467	59291	-.18543	.04771	.17618	.00692	-.00246	.00058	
131.339	59315	-.09488	.04553	.15059	.00890	-.00231	.00024	
131.218	59328	-.01062	.04518	.12665	.01194	-.00263	.00012	
131.073	59202	.08467	.04543	.10025	.01167	-.00204	.00110	
130.941	59205	.17312	.04714	.07877	.01351	-.00211	.00086	
130.802	59291	.25409	.04987	.05901	.01476	-.00213	.00108	
130.668	59294	.35229	.05364	.03661	.01585	-.00225	.00137	
130.501	59236	.44435	.05928	.01961	.01635	-.00233	.00144	
130.357	59254	.52433	.06623	.00976	.01662	-.00204	.00194	
130.219	59394	.61100	.07792	-.00216	.01722	-.00178	.00216	
130.047	8.200	.69559	.09664	.00206	.01631	-.00103	.00298	
	GRADIENT	-.00016	-.00062	-.02444	.00159	.00006	.00018	

**ORIGINAL PAGE IS  
 OF POOR QUALITY**

ARC 14-120(CA23B) 747/1 AT1

(RNH005) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 MACH = .600

RUN NO. 51/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	CL	CD	CLM	CY	CYN	CBL
130.569	-5.190	.59186	-.41372	.07099	-.05660	.00475	-.00349	.00081
130.436	-3.773	.59183	-.29293	.05678	-.09702	.00681	-.00361	.00027
130.276	-2.866	.59045	-.21752	.05099	-.12365	.00881	-.00351	-.00040
130.158	-1.854	.59142	-.11834	.04663	-.15887	.01266	-.00355	-.00058
130.031	-.858	.59094	-.03064	.04511	-.18750	.01209	-.00308	.00018
129.869	-.149	.59225	.06273	.04541	-.21556	.01241	-.00331	.00070
129.728	1.216	.59218	.15824	.04812	-.24076	.01220	-.00300	.00099
129.596	2.190	.59280	.25470	.05205	-.26286	.01330	-.00286	.00069
129.434	3.207	.59133	.34288	.05696	-.28019	.01496	-.00289	.00089
129.329	4.111	.59127	.42312	.06210	-.29188	.01406	-.00261	.00091
129.085	5.180	.59122	.51421	.07014	-.30219	.01534	-.00266	.00123
128.927	6.172	.59136	.59770	.07934	-.30790	.01608	-.00245	.00185
128.889	7.226	.59077	.69803	.09334	-.31335	.01580	-.00198	.00159
128.737	8.205	.59073	.77554	.11185	-.30176	.01682	-.00146	.00276
GRADIENT	.00008	.09147	.00089	.00252	.00081	.00012	.00016	.00016

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH008) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 81/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
4.365	.192	6.79528	-.02554	-.20623	-.12649	.04226	.25234	.00742	-.00206	.00043
2.954	2.364	8.20568	-.05088	.20371	.05473	.04487	.19512	.01177	-.00291	.00116
3.443	4.308	10.25770	-.08104	.23854	.21255	.04968	.15943	.01539	-.00297	.00124
GRADIENT	.00020	.83739	-.02607	.10961	.08238	.00179	-.02264	.00194	-.00022	.00020

RUN NO. 82/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
6.994	-.126	6.00552	-.12176	-.34829	-.13659	.04351	.23701	.00740	-.00216	.00046
7.541	2.378	8.29366	.00073	-.32784	.07533	.04605	.17544	.01199	-.00213	.00074
7.335	4.361	10.30330	-.08161	-.49519	.23191	.05166	.14057	.01590	-.00227	.00038
GRADIENT	.00047	.95577	.01067	-.03097	.08222	.00178	-.02162	.00189	-.00002	-.00001

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 83/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.751	-.141	.59169	6.01990	-.16650	-.54241	-.12587	.04436	.22348	.00694	-.00207	.07025
9.637	2.414	.59244	8.28560	.04687	-.44705	.08773	.04687	.16388	.01139	-.00208	.00042
9.522	4.401	.59008	10.30680	-.06067	-.42173	.24069	.05234	.13143	.01452	-.00196	.00093
	GRADIENT	-.00033	.94128	.02611	.02708	.08085	.00172	-.02041	.00167	.00002	.00015

RUN NO. 84/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.752	-.014	.59254	6.14126	-.10545	-.49569	-.10356	.04506	.20033	.00772	-.00226	.00006
15.063	2.461	.59202	8.39154	.02080	-.33369	.10466	.04785	.14230	.01105	-.00183	.00037
15.188	4.492	.59069	10.47500	-.10713	-.43565	.26565	.05365	.11139	.01568	-.00221	.00065
	GRADIENT	-.00040	.95993	.00147	.01520	.08202	.00194	-.01987	.00175	.00002	.00017

RUN NO. 85/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.536	-.028	.59150	6.09616	-.09164	-.41648	-.08484	.04521	.17299	.00687	-.00223	.00084
29.860	2.464	.59156	8.37419	.00094	-.32859	.13201	.04828	.11921	.01204	-.00221	.00048
29.902	4.306	.59173	10.26970	-.13705	-.42608	.27339	.05405	.08575	.01594	-.00248	.00096
	GRADIENT	.00005	.96007	-.00776	-.00008	.08290	.00199	-.02021	.00209	-.00005	.00002

RUN NO. 86/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.873	-.065	.59219	6.08741	-.08155	-.48477	-.08207	.04511	.16214	.00804	-.00248	.00067
44.666	2.496	.59329	8.38191	-.00515	-.48370	.15088	.04873	.10568	.01275	-.00225	.00075
45.029	4.342	.59219	10.32980	-.21858	-.52900	.29929	.05493	.07253	.01453	-.00220	.00094
	GRADIENT	.00003	.95852	-.02730	-.00939	.08660	.00218	-.02044	.00150	.00006	.00006

RUN NO. 87/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.039	-.106	.59335	6.00790	-.05961	-.54456	-.06960	.04566	.15837	.00813	-.00246	.00030
50.412	2.490	.59218	8.42595	-.20322	-.44509	.14715	.04862	.10373	.01269	-.00231	.00105
50.166	4.334	.59202	10.27840	-.19609	-.49766	.30370	.05489	.06761	.01602	-.00241	.00128
	GRADIENT	-.00031	.95987	-.06045	.01238	.08404	.00202	-.02048	.00178	.00002	.00022

ARC 14-120(CA238) 747/1 AT: 0251 (CARRIER DATA)

(RNH009) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
8.075	.274	.59107	8.98241	-2.26005	-.48266	-.13112	.04079	.28083	.00637	-.00257	.00336
7.276	2.380	.59100	10.26110	-.15449	-.50319	.04574	.04325	.23122	.01073	-.00232	.00081
7.800	4.334	.59115	12.33510	-.09343	-.54526	.20057	.04794	.19858	.01342	-.00216	.00051
	GRADIENT	.00002	.62302	.53973	-.01535	.08173	.00175	-.02030	.00124	.00010	.00004

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.930	-.015	.59119	8.14574	-.14314	-.47456	-.14129	.04223	.25910	.00598	-.00224	.00067
10.158	2.498	.59200	10.44690	-.03224	-.44624	.05984	.04388	.21521	.01137	-.00255	.00103
9.843	4.339	.59032	12.29420	-.06267	-.55214	.20916	.04917	.18271	.01400	-.00226	.00081
	GRADIENT	-.00017	.95062	-.01999	-.01611	.08046	.00154	-.01754	.00186	-.00001	.00004

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.862	-.101	.59246	8.04677	-.13258	-.38124	-.13335	.04315	.23726	.00559	-.00213	.00049
14.490	2.534	.59206	10.40940	-.00278	-.47713	.07903	.04573	.19003	.01087	-.00235	.00095
15.108	4.322	.59336	12.32420	-.12014	-.54510	.22164	.05083	.15600	.01392	-.00218	.00082
	GRADIENT	.00018	.96159	.00646	-.03699	.68027	.00168	-.01834	.00189	-.00002	.00008

OZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.926	-.027	.59233	8.10042	-.14976	-.52747	-.09066	.04491	.19330	.00679	-.00224	.00054
29.957	2.539	.59264	10.47820	-.09792	-.43116	.11534	.04758	.14450	.01248	-.00262	.00110
29.720	4.365	.59102	12.31910	-.14966	-.56262	.26221	.05347	.11135	.01683	-.00279	.00122
	GRADIENT	-.00027	.95845	.00134	-.00504	.08035	.00189	-.01868	.00228	-.00013	.00016

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.465	-.192	.59190	7.89170	-.04396	-.57621	-.09977	.04486	.18072	.00630	-.00222	.00055
44.798	2.406	.59246	10.32970	-.06445	-.44672	.11981	.04754	.12800	.01117	-.00222	.00111
44.825	4.485	.59147	12.45250	-.18625	-.47087	.29730	.05490	.08593	.01605	-.00250	.00096
	GRADIENT	-.00008	.97370	-.02950	.02354	.08489	.00210	-.02006	.00208	-.00006	.00009



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REFERENCE DATA

SREF = 5500.0000 SO.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RUN NO. 96/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.555	.078	.59172	8.07496	-.00083	-.51299	-.07765	.04550	.17100	.00692	-.00261	.00008
50.407	2.550	.59179	10.48780	-.00063	-.48408	.14545	.04846	.11750	-.01230	-.00227	.00048
50.452	4.393	.59307	12.38500	-.12157	-.45860	.29897	.05451	.08267	.01629	-.00257	.00100
	GRADIENT	.00028	.96078	-.02516	.01208	.09427	.00196	-.01980	.00162	.00002	.00020

BETA = .000 STAB = -1.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 8.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SO.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RUN NO. 101/ 0 RN/L = 3.39 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
6.742	.132	.59549	8.00852	-.12109	.03761	-.04427	.04250	-.05073	.01112	-.00328	.00022
7.349	2.303	.59593	10.24330	-.02354	.14223	.12201	.04602	-.08840	.01350	-.00308	.00027
7.463	4.270	.59467	12.22970	-.05880	.11115	.28203	.05313	-.12692	.01505	-.00270	.00094
	GRADIENT	-.00019	1.02022	.01557	.01830	.07881	.00255	-.01839	.00095	-.00014	.00017

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 8.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

DZ 10.009  
10.088  
10.447

ALPHAC  
-.206  
2.335  
4.346

MACH  
.59438  
.59797  
.59946  
.00092

ALPHA0  
7.96112  
10.27510  
12.35190  
.96426

DX  
-.15476  
-.02114  
-.09557  
.01471

DY  
-.38643  
.41237  
-.31935  
.01366

CL  
-.07108  
.13875  
.30214  
.08201

CD  
.04284  
.04718  
.05528  
.00269

CLM  
-.05625  
-.10779  
-.14897  
-.02036

CY  
.00995  
.01426  
.01588  
.00132

CYN  
-.00284  
-.00296  
-.00252  
.00006

CBL  
.00016  
.00068  
.00107  
.00020

DZ 15.028  
14.812  
15.043

ALPHAC  
-.178  
2.367  
4.381

MACH  
.59684  
.59644  
.59768  
.00017

ALPHA0  
7.96002  
10.27820  
12.35480  
.95336

DX  
-.14715  
-.01582  
-.09065  
.01408

DY  
-.34488  
-.39669  
-.41872  
-.01637

CL  
-.04596  
.15875  
.32213  
.08071

CD  
.04395  
.04860  
.05727  
.00287

CLM  
-.08538  
-.13719  
-.17831  
-.02038

CY  
.01045  
.01251  
.01464  
.00091

CYN  
-.00287  
-.00270  
-.00237  
.00011

CBL  
.00006  
.00047  
.00107  
.00008

RUN NO. 103/ 0 RN/L = 3.37 GRADIENT INTERVAL = -5.00/ 5.00

ARC 14-120(CA23B) 747/1 ATI 0251 (CARRIER DATA) (RNHD10) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH010) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 104/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.868	ALPHAC	8.00410	ALPHA0	8.00410	DX	-.10253	DY	-.51265	CL	-.00567	CD	.04480	CLM	-.13755	CY	.01041	CYN	-.00283	CBL	.00034
	45.183		10.33170		10.33170		-.08537		-.47228		-.20061		.05083		-.19267		.01335		-.00308		.00033
	45.129		12.36740		12.36740		-.12801		-.46917		.36425		.06049		-.22858		.01470		-.00288		.00070
		GRADIENT	.96574		.96574		-.00522		.00986		.08200		.00344		-.02024		.00096		-.00001		.00008

RUN NO. 105/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.868	ALPHAC	8.01493	ALPHA0	8.01493	DX	-.11246	DY	-.41856	CL	.01647	CD	.04518	CLM	-.16267	CY	.00978	CYN	-.00283	CBL	.00024
	45.183		10.39430		10.39430		-.11112		-.43596		.22835		.05195		-.21833		.01319		-.00296		.00052
	45.129		12.42070		12.42070		-.22071		-.48760		.39143		.06258		-.25078		.01470		-.00274		.00045
		GRADIENT	.96903		.96903		-.02280		-.01485		.08263		.00378		-.01952		.00109		.00002		.00005

RUN NO. 106/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.418	ALPHAC	8.06252	ALPHA0	8.06252	DX	-.00328	DY	-.42559	CL	.01985	CD	.04532	CLM	-.16845	CY	.01025	CYN	-.00298	CBL	.00043
	50.480		10.42250		10.42250		-.01726		-.50454		.23712		.05236		-.22520		.01229		-.00286		.00058
	50.477		12.40590		12.40590		-.14625		-.54820		.40064		.06269		-.25671		.01499		-.00286		.00088
		GRADIENT	.96499		.96499		-.03050		-.02749		.08481		.00381		-.01978		.00104		.00003		.00010

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH011) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 111/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.151	ALPHAC	4.01104	ALPHA0	4.01104	DX	-.08958	DY	-.18456	CL	-.09014	CD	.04592	CLM	.18409	CY	.00782	CYN	-.00183	CBL	.00027
	3.118		6.13462		6.13462		-.06761		-.22048		.09506		.04760		.13833		.01255		-.00192		.00065
	3.528		8.21639		8.21639		-.08397		-.22023		.25598		.05254		-.10136		.01577		-.00179		.00084
		GRADIENT	.99629		.99629		.00149		-.00861		.08209		.00155		-.01963		.00189		.00001		.00013

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) (RNH011) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 112/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.547	-1.170	.59381	4.03841	-20703	-12903	-03319	.04576	.18261	.00806	-00196	.00057
7.199	2.385	.59203	6.25137	.12007	-.22900	.12091	.04829	.12728	.01279	-00193	.00052
7.175	4.257	.59299	8.17837	-.04267	-.20347	.25770	.05313	.09110	.01682	-00205	.00080
	GRADIENT	-.00021	.93117	.04249	-.01813	.08166	.00163	-.02073	.00197	-00002	.00005

RUN NO. 113/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.781	-1.120	.59267	4.05269	-16821	-18607	-.08213	.04617	.18008	.00878	-00209	.00019
9.781	2.353	.59142	6.23779	.09256	-.22556	.12287	.04825	.12534	.01303	-00212	.00049
9.491	4.419	.59138	8.30710	-.01048	-.22926	.28506	.05430	.08523	.01694	-00213	.00036
	GRADIENT	-.00029	.93566	.03704	-.00973	.08097	.00176	-.02094	.00180	-00001	.00001

RUN NO. 114/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.874	-.041	.59347	4.15214	-12322	-.19547	-.07244	.04651	.16826	.01007	-00255	.00006
14.967	2.414	.59386	6.32741	-.01929	-.23114	.13302	.04829	.11641	.01347	-00222	.00122
14.923	4.392	.59566	8.34322	-.17291	-.18094	.29121	.05439	.07844	.01669	-00218	.00092
	GRADIENT	.00048	.94304	-.00909	.00257	.08209	.00173	-.02029	.00149	-00009	.00021

RUN NO. 115/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.907	-1.177	.59500	4.00406	-12413	-17462	-.05534	.04588	.15453	.00816	-00224	.00048
29.803	2.432	.59479	6.32040	-.14288	-.23873	.15686	.04869	.10008	.01265	-00199	.00101
29.693	4.435	.59391	8.35884	-.12964	-.21969	.32304	.05525	.06018	.01715	-00231	.00075
	GRADIENT	-.00023	.94143	-.00149	-.01050	.08426	.00199	-.02048	.00194	-00001	.00006

RUN NO. 116/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.786	-1.134	.59320	4.02485	-.06309	-.24970	-.04588	.04576	.14632	.00824	-00219	.00030
45.057	2.347	.59320	6.29147	-.22253	-.27150	.16815	.04813	.09216	.01344	-00211	.00065
44.452	4.450	.59252	8.35115	-.10843	-.18991	.34174	.05547	.05220	.01672	-00226	.00108
	GRADIENT	-.00014	.94267	-.01108	.01242	.08460	.00209	-.02057	.00186	-00001	.00017

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH012) ( 08 OCT 75 )

REFERENCE DATA

SPEF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 121/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.209	.038	.59480	5.99659	-.06803	-.28949	-.11855	.04364	.24249	.00761	-.00192	.00008
3.176	2.411	.59631	8.26383	-.05291	-.22924	.07768	.04526	.19210	.01063	-.00200	.00072
3.398	4.319	.59450	10.27320	-.08407	-.32241	.22480	.04996	.16229	.01554	-.00231	.00032
	GRADIENT	-.00004	.99710	-.00334	-.00637	.09029	.00145	-.01883	.00183	-.00009	.00010

RUN NO. 122/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.586	-.026	.59403	6.16280	-.20573	-.26645	-.10314	.04431	.23069	.00853	-.00236	.00005
7.752	2.399	.59281	8.34562	-.04076	-.30365	.09232	.04628	.17495	.01210	-.00234	.00091
7.261	4.448	.59334	10.37730	-.07958	-.41296	.25013	.05166	.14153	.01594	-.00226	.00070
	GRADIENT	-.00016	.94074	.02940	-.03222	.07901	.00162	-.02002	.00165	-.00002	.00015

RUN NO. 123/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.180	.156	.59296	6.05873	-.19455	-.29121	-.11151	.04457	.22108	.00733	-.00233	.00022
9.988	2.439	.59362	8.34630	-.02098	-.28681	.10203	.04684	.16346	.01253	-.00234	.00067
10.110	4.458	.59257	10.42810	-.10402	-.32093	.26451	.05236	.13011	.01501	-.00217	.00080
	GRADIENT	-.00007	.94394	.02257	-.00606	.08153	.00165	-.01983	.00189	-.00003	.00013

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 131/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.093	.127	.59355	6.06234	-.01073	-.54464	-.03391	.04450	-.08578	.00644	-.00061	.00004
3.006	2.255	.59495	8.09604	-.05380	-.49183	.14021	.04857	-.13502	.01099	-.00099	.00011
3.460	4.338	.59342	10.28890	-.06887	-.57379	.30316	.05671	-.16778	.01191	-.00070	.00052
	GRADIENT	-.00003	1.00357	-.01383	-.00681	.08006	.00290	-.01949	.00130	-.00002	.00011

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(RNH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 132/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.217	-.139	6.01524	-.15708	-.42273	-.04323	.04480	-.09614	.00651	-.00076	-.07905
7.234	2.360	8.25183	.04116	-.50229	.15965	.04999	-.15708	.00960	-.00073	.00056
7.262	4.367	10.29700	-.06766	-.51025	.32276	.05878	-.18934	.01133	-.00059	.00075
GRADIENT	.00008	.94800	.02224	-.01992	.08122	.00306	-.02083	.00108	.00004	.00016

RUN NO. 133/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.116	-.237	5.97668	-.21796	-.45642	-.04628	.04490	-.10655	.00702	-.00104	.00039
9.960	2.407	8.30916	.00486	-.58665	.17509	.05075	-.16939	.00933	-.00078	.00031
9.890	4.371	10.31750	-.10588	-.58819	.33177	.05935	-.20064	.01168	-.00074	.00044
GRADIENT	.00001	.93855	.02768	-.02975	.08213	.00308	-.02061	.00100	.00007	.00001

RUN NO. 134/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.175	-.191	6.02236	-.14580	-.48842	-.02802	.04557	-.12821	.00874	-.00136	-.00036
14.756	2.411	8.30132	.10008	-.50023	.18461	.05158	-.18839	.00974	-.00100	.00038
15.038	4.441	10.40550	-.06533	-.53208	.35196	.06089	-.21945	.01215	-.00093	.00043
GRADIENT	-.00018	.94319	.02092	-.00920	.08201	.00326	-.01985	.00072	.00010	.00018

RUN NO. 135/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.192	-.063	6.12957	-.13999	-.48303	.01384	.04599	-.16667	.00984	-.00219	.00012
29.830	2.435	8.34504	.02612	-.52953	.21809	.05272	-.22062	.01189	-.00210	.00031
29.948	4.393	10.45230	-.12102	-.48783	.37352	.06235	-.24914	.01466	-.00224	.00078
GRADIENT	-.00003	.94505	.00706	-.00187	.08078	.00363	-.01865	.00107	-.00001	.00014

RUN NO. 136/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.708	-.049	6.08505	-.03050	-.55682	.02789	.04594	-.18139	.00903	-.00232	.00028
44.452	2.450	8.32281	.06383	-.52600	.23957	.05321	-.23497	.01234	-.00233	.00008
44.457	4.474	10.44210	-.13420	-.55187	.40090	.06370	-.26404	.01449	-.00239	.00091
GRADIENT	.00009	.95448	-.02059	.00153	.08257	.00389	-.01840	.00121	-.00001	.00013

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH013) ( 08 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 137/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.164	-.057	.59060	6.08766	.02680	-.50309	.02730	.04578	-.18463	.00928	-.00234	.00047
50.275	2.433	.59151	8.35052	-.22483	-.52458	.24287	.05304	-.23973	.01213	-.00235	.00079
50.038	4.464	.59112	10.39360	-.15954	-.56778	.40909	.06376	-.26826	.01498	-.00245	.00103
	GRADIENT	.00012	.95078	-.04344	-.01410	.08452	.00394	-.01863	.00126	-.00002	.00012

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH014) ( 08 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 141/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.324	2.292	.58874	8.14864	9.83387	-.61049	.15300	.04792	-.13516	.00918	.00011	.00029
3.528	4.239	.58797	10.18740	9.90698	-.62378	.31783	.05600	-.16677	.01106	.00014	.00031
	GRADIENT	-.00040	1.04754	.03756	-.00683	.08469	.00415	-.01624	.00097	.00001	.00001

RUN NO. 142/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.340	1.933	.59106	8.03902	9.83965	-.57642	.14170	.04826	-.14767	.00916	-.00005	-.00021
7.097	4.300	.59023	10.18070	9.98195	-.56853	.33603	.05813	-.18984	.01117	.00019	.00028
	GRADIENT	-.00035	.90459	.06010	.00333	.08208	.00417	-.01781	.00085	.00010	.00021

RUN NO. 143/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.137	1.946	.58948	8.07874	9.80002	-.65521	.14810	.04901	-.15947	.00722	.00020	-.00004
9.825	4.403	.58978	10.29950	9.94826	-.61097	.35090	.05986	-.20446	.01057	.00018	.00035
	GRADIENT	.00012	.90381	.06033	.01800	.08254	.00442	-.01831	.00136	-.00001	.00016

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(RNH014) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 144/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.831	1.968	.58834	8.07216	9.88695	-.56380	.16011	.04983	-.18046	.00912	-.00044	.0026
14.775	4.376	.58834	10.27830	9.98489	-.67370	.36669	.06097	-.22623	.01196	-.00046	.00024
	GRADIENT	.00000	.91632	.04068	-.04564	.08581	.00463	-.01901	.00118	-.00001	-.00001

RUN NO. 145/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.007	1.997	.58824	8.10933	9.83759	-.54460	.19732	.05124	-.21949	.01121	-.00200	.00041
29.873	4.392	.59120	10.31920	9.90959	-.67261	.39474	.06297	-.25593	.01368	-.00189	.00075
	GRADIENT	.00124	.92270	.03006	-.05345	.08243	.00490	-.01522	.00103	.00005	.00014

RUN NO. 146/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.854	1.998	.59220	8.09096	9.89672	-.59050	.20786	.05143	-.23415	.01045	-.00227	.00087
44.891	4.430	.59175	10.36500	9.89048	-.62597	.41832	.06410	-.27112	.01368	-.00213	.00054
	GRADIENT	-.00019	.93496	-.00257	-.01458	.08653	.00521	-.01520	.00133	.00006	-.00014

RUN NO. 147/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.387	2.049	.59016	8.14847	9.92864	-.58366	.22266	.05210	-.23840	.01183	-.00235	.00048
50.182	4.431	.59062	10.35190	9.93609	-.63135	.42020	.06420	-.27329	.01395	-.00218	.00115
	GRADIENT	.00019	.92503	.00313	-.02002	.08293	.00508	-.01465	.00089	.00007	.00028

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(RNH015) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.261	2.410	.59012	10.27640	9.87396	-.64955	.15377	.04744	-.09299	.00918	-.00029	.00024
7.540	4.362	.58935	12.32900	9.88592	-.65076	.31258	.05498	-.12094	.01223	-.00061	.00015
	GRADIENT	-.00039	1.05174	.00613	-.00062	.08137	.00386	-.01432	.00156	-.00016	-.00005

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.896	2.043	.58898	10.12980	9.84214	-.69514	.13345	.04717	-.09946	.00909	-.00046	.00042
10.215	4.489	.58898	12.42930	9.88451	-.62920	.33666	.05710	-.14464	.01171	-.00064	.00031
	GRADIENT	-.00000	.94813	.01747	.02719	.08379	.00409	-.01863	.00108	-.00007	-.00004

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.806	2.079	.58834	10.16290	9.83145	-.73897	.15424	.04878	-.13141	.01022	-.00083	.00028
14.750	4.497	.59019	12.41680	9.90355	-.69922	.35790	.05934	-.17663	.01218	-.00076	.00017
	GRADIENT	.00076	.93236	.02983	.01644	.08425	.00437	-.01871	.00081	.00003	.00019

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.131	2.049	.58930	10.16660	9.85376	-.59362	.18744	.05068	-.18761	.01114	-.00231	.00091
30.087	4.493	.59112	12.45850	9.88809	-.66197	.38912	.06220	-.23009	.01450	-.00235	.00104
	GRADIENT	.00074	.93764	.01404	-.02796	.08251	.00471	-.01738	.00137	-.00002	.00005

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.833	2.044	.58992	10.11530	9.84286	-.70105	.20689	.05133	-.21452	.01174	-.00259	.00056
45.102	4.460	.58952	12.43770	9.80066	-.69118	.40532	.06320	-.25323	.01468	-.00252	.00133
	GRADIENT	-.00016	.96142	-.01747	.00409	.08215	.00491	-.01602	.00122	.00003	.00032

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.292	2.016	.58875	10.08650	9.95743	-.71722	.20766	.05132	-.21964	.01187	-.00279	.00069
50.425	4.375	.58946	12.34030	9.90189	-.65667	.40762	.06327	-.25720	.01465	-.00260	.00081
	GRADIENT	.00030	.95528	-.02354	.02566	.08475	.00506	-.01592	.00118	.00008	.00005



ARC 14-120(CA238) 747/1 AT1 0251 (CARRIER DATA)

REFERENCE DATA

SOF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 DZ = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 DZ = 2348.0400 IN. ZMRP = 190.7500 IN ZC LOBB = 6.000 DX = 20.000  
 GRADIENT = .0125

PARAMETRIC DATA

RY = .000 STAB = 5.000  
 CY = .00808 CYN = .00002 CBL = .00027  
 CLM = .01084 CYN = .00030 CBL = .00038  
 CLM = .00147 CYN = .00017 CBL = .00006

GRADIENT INTERVAL = -5.00/ 5.00

Run No.	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
161/0	.58993	8.27632	19.88670	-.85192	.18952	.04837	-.13605	.00808	.00002	.00027
	.59018	10.26730	19.94590	-.73584	.34375	.05697	-.16141	.01084	.00030	.00038
	.00013	1.06004	.03152	.06180	.08212	.00458	-.01350	.00147	.00017	.00006

GRADIENT INTERVAL = -5.00/ 5.00

Run No.	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
162/0	.58931	8.10145	19.88560	-.81205	.16464	.04871	-.14803	.00869	.00044	.00030
	.58955	10.36010	19.98690	-.80660	.36794	.05976	-.18998	.01153	.00046	.00044
	.00010	.91870	.04120	.00222	.08269	.00449	-.01706	.00116	.00001	.00006

GRADIENT INTERVAL = -5.00/ 5.00

Run No.	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
163/0	.59022	8.13025	19.81960	-.76563	.16379	.04952	-.16075	.00794	.00041	.00025
	.58900	10.34260	20.00000	-.81234	.37344	.06078	-.20178	.01170	.00051	.00038
	.00049	.88639	.07228	-.01871	.08400	.00451	-.01644	.00151	.00004	.00005

GRADIENT INTERVAL = -5.00/ 5.00

Run No.	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
164/0	.58950	8.26269	19.89530	-.82928	.19297	.05096	-.18416	.00896	.00087	.00046
	.58971	10.20060	20.01710	-.74015	.37005	.06109	-.21886	.01246	.00038	.00001
	.00010	.90195	.05669	.04148	.08242	.00472	-.01615	.00163	.00005	.00021

GRADIENT INTERVAL = -5.00/ 5.00

Run No.	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
165/0	.59006	8.11890	19.88350	-.80714	.20292	.05169	-.21782	.01073	.00221	.00060
	.59030	10.34740	19.95900	-.86086	.40436	.06342	-.25344	.01354	.00221	.00107
	.00010	.91480	.03099	-.02205	.08269	.00482	-.01462	.00115	.00000	.00019

GRADIENT INTERVAL = -5.00/ 5.00

Run No.	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
166/0	.58963	8.08105	19.87420	-.75225	.21887	.05215	-.23351	.01120	.00250	.00066
	.58976	10.34770	19.88250	-.77199	.42343	.06437	-.26762	.01472	.00251	.00094
	.00005	.92540	.00340	-.00810	.08387	.00501	-.01398	.00145	.00000	.00011

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 OF POOR QUALITY

ARC 14-120(CA238) 747/1 ATI 02S1 (CARRIER DATA)

(RNH016) ( 08 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 167/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.218	1.983	.58890	8.06786	19.98550	-.80823	.21505	.05171	-.23622	.01084	-.00247	.00085
50.509	4.478	.58886	10.43010	19.90790	-.77122	.43139	.06495	-.27124	.01497	-.00255	.00118
	GRADIENT	-.00002	.94658	-.03110	.01483	.08669	.00531	-.01404	.00165	-.00003	.00013

ARC 14-120(CA238) 747/1 ATI 02S1 (CARRIER DATA)

(RNH017) ( 08 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 171/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.409	2.320	.59052	10.20990	19.85050	-.73949	.16107	.04618	-.09480	.01036	-.00113	.00010
7.682	4.409	.58988	12.38070	19.85190	-.88774	.33647	.05435	-.11771	.01458	-.00132	.00038
	GRADIENT	-.00031	1.03942	.00067	-.07099	.08399	.00391	-.01097	.00202	-.00009	.00013

RUN NO. 172/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.200	1.989	.59146	10.12200	19.86550	-.83323	.14505	.04622	-.10108	.01056	-.00137	.00041
9.876	4.367	.59089	12.28790	19.96400	-.80872	.33979	.05554	-.13814	.01336	-.00131	.00008
	GRADIENT	-.00024	.91088	.04142	.01030	.08190	.00392	-.01559	.00118	.00003	-.00014

RUN NO. 173/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.980	2.042	.59126	10.15750	19.87800	-.83951	.15711	.04762	-.13116	.01136	-.00168	.00001
14.840	4.390	.59227	12.31590	19.95010	-.82679	.35369	.05752	-.16875	.01312	-.00144	.00049
	GRADIENT	.00043	.91935	.03071	.00542	.08373	.00421	-.01601	.00075	.00010	.00021

RUN NO. 174/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.168	1.994	.59111	10.12010	19.85060	-.87986	.18256	.04936	-.18554	.01164	-.00275	.00098
29.810	4.397	.59085	12.32620	19.90240	-.75313	.38748	.06071	-.22418	.01623	-.00292	.00079
	GRADIENT	-.00011	.91819	.02156	.05275	.08529	.00472	-.01608	.00191	-.00007	-.00008

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 8.000 DX = 20.000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RUN NO. 175/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.854	2.109	.59147	10.18690	19.84610	-.82726	.21445	.05096	-.21517	.01218	-.00279	.00031
45.244	4.417	.59090	12.41310	19.77770	-.77838	-.0819	.06250	-.24890	.01549	-.00281	.00032
	GRADIENT	-.00025	.96464	-.02964	.02118	.08395	.00500	-.01462	.00144	-.00001	.00000

RUN NO. 176/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.344	2.118	.59046	10.19050	19.95560	-.87380	.21247	.05092	-.21960	.01216	-.00293	.00084
50.595	4.352	.59133	12.33830	19.88730	-.81367	.40279	.06205	-.25303	.01457	-.00270	.00096
	GRADIENT	.00039	.96146	-.03057	.02692	.08520	.00498	-.01497	.00108	.00010	.00005

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RUN NO. 181/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.378	2.472	.59115	8.33671	-.12064	9.62659	.16901	.04843	-.15673	.00689	-.00742	.00603
3.590	4.405	.59201	10.37400	-.08127	9.59522	.32107	.05666	-.18628	.00499	-.00687	.00722
	GRADIENT	.00045	1.05348	.02036	-.01570	.07863	.00425	-.01528	-.00098	.00028	.00062

RUN NO. 182/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.711	2.009	.59096	8.13160	-.20008	9.51655	.14685	.04779	-.15966	.00781	-.00657	.00524
7.202	4.378	.58954	10.27110	-.01628	9.62298	.33992	.05797	-.20341	.00549	-.00507	.00624
	GRADIENT	-.00060	.90293	.07757	.01492	.08149	.00430	-.01847	-.00098	.00063	.00042

RUN NO. 183/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.911	2.005	.59142	8.10379	-.17612	9.57279	.15419	.04837	-.16891	.00814	-.00595	.00494
10.102	4.475	.59168	10.41380	-.06798	9.48457	.35514	.05964	-.21466	.00464	-.00374	.00502
	GRADIENT	.00011	.93526	.04378	-.03572	.08136	.00456	-.01852	-.00142	.00089	.00003

ARC 14-120(CA238) 747/1 AT1 0251 (CARRIER DATA)

(RNH018) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 184/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.973	2.102	8.20417	-1.19876	9.52500	.17475	.04978	-.18504	.00604	-.00417	.00387
14.736	4.362	10.27250	-.05627	9.52253	.36111	.06015	-.22760	.00349	-.00195	.00446
GRADIENT	GRADIENT		.06303	-.00109	.08243	.00459	-.01838	-.00112	.00098	.00026

RUN NO. 185/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.716	2.100	8.16409	-1.17495	9.55144	.19643	.05099	-.21737	.00295	.00032	.00175
29.761	4.335	10.25280	-.11756	9.58290	.38368	.05228	-.25441	.00077	.00207	.00185
GRADIENT	GRADIENT		.02568	.01408	.08379	.00505	-.01657	-.00097	.00078	.00004

RUN NO. 186/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.733	1.972	8.04435	-.07776	9.51284	.20329	.05102	-.22894	.00459	.00028	.00070
44.856	4.308	10.24170	-.08370	9.47621	.40112	.06273	-.26584	.00478	.00113	.00121
GRADIENT	GRADIENT		-.00254	-.01568	.08469	.00501	-.01580	.00008	.00036	.00022

RUN NO. 187/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
49.952	2.021	8.06519	-.05049	9.55487	.21121	.05101	-.23164	.00617	-.00029	.00124
50.410	4.396	10.34680	-.12212	9.63862	.41363	.06371	-.26802	.00670	.00046	.00099
GRADIENT	GRADIENT		-.03016	.03527	.08524	.00535	-.01532	.00022	.00032	-.00010

DATE 22 MAR 76

TABLATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(RNH019) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 191/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.491	ALPHAC	2.405	ALPHA	10.30160	DX	-.19122	DY	9.49085	CL	.14637	CD	.04679	CLM	-.12377	CY	.00441	CYN	-.00552	CBL	.00603
	7.844	GRADIENT	4.380		12.38840		-.09388		9.47890		.30538		.05461		-.15697		.00108		-.00292		.00708
					1.05655		.04929		.00605		.08051		.00396		-.01681		-.00169		.00132		.00053

RUN NO. 192/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.818	ALPHAC	2.116	ALPHA	10.17870	DX	-.13626	DY	9.42647	CL	.13734	CD	.04639	CLM	-.12364	CY	.00431	CYN	-.00485	CBL	.00562
	9.759	GRADIENT	4.310		12.23590		-.04223		9.43453		.31310		.05511		-.16629		.00071		-.00202		.00649
					.93779		.04286		.00367		.08012		.00398		-.01944		-.00164		.00129		.00040

RUN NO. 193/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.864	ALPHAC	1.964	ALPHA	10.05070	DX	-.15746	DY	9.48663	CL	.13279	CD	.04663	CLM	-.14073	CY	.00351	CYN	-.00333	CBL	.00542
	15.018	GRADIENT	4.414		12.36710		-.07712		9.47787		.33095		.05719		-.18907		-.00027		-.00016		.00548
					.94548		.03279		-.00358		.08088		.00431		-.01973		-.00154		.00129		.00003

RUN NO. 194/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.225	ALPHAC	2.014	ALPHA	10.12240	DX	-.19612	DY	9.39762	CL	.17439	CD	.04950	CLM	-.18838	CY	-.00082	CYN	.00151	CBL	.00218
	30.105	GRADIENT	4.404		12.37380		-.14130		9.41791		.37311		.06132		-.23277		-.00359		.00367		.00211
					.94210		.02294		.00849		.08315		.00495		-.01857		-.00116		.00099		-.00003

RUN NO. 195/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.421	ALPHAC	2.014	ALPHA	10.02770	DX	-.16199	DY	9.45087	CL	.19987	CD	.05088	CLM	-.21359	CY	.00296	CYN	.00132	CBL	.00064
	45.079	GRADIENT	4.380		12.36580		-.23329		9.39875		.39156		.06213		-.25347		.00400		.00192		.00153
					.98810		-.03013		.02203		.08101		.00475		-.01685		.00044		.00025		.00037

RUN NO. 196/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.290	ALPHAC	2.002	ALPHA	10.06530	DX	-.10008	DY	9.48992	CL	.20429	CD	.05092	CLM	-.21747	CY	.00376	CYN	.00060	CBL	.00118
	50.279	GRADIENT	4.323		12.27740		-.12280		9.32532		.39280		.06241		-.25644		.00557		.00114		.00131
					.95279		-.00978		-.07090		.08119		.00495		-.01678		.00078		.00023		.00005

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ARC 14-120(CA23B) 74771 AT1 0251 (CARRIER DATA)

(RNH020) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 4.000 DX = .000  
 .000 MACH = .600

BETA =  
 RUDDER =  
 TORB =  
 DY =

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	2.999	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	2.972	.056	.58831	4.00251	-.04123	-.23247	.01049	.04772	-.20592	.01062	-.00198	.00006
	3.376	2.231	.58905	6.08127	-.02004	-.45838	.18864	.05304	-.24220	.01235	-.00197	.00034
		4.258	.58842	8.18834	-.10046	-.24934	.24994	.06230	-.26878	.01533	-.00181	.00035
		GRADIENT	.00003	.99573	-.01381	-.00523	.68080	.00346	-.01498	.00112	.00004	.00007

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.356	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	7.305	-.232	.58699	3.96105	-.11584	-.45749	-.00665	.04702	-.20200	.01008	-.00202	.00010
	7.176	2.422	.58730	6.30038	-.05714	-.37696	.20981	.05403	-.25278	.01303	-.00200	.00019
		4.286	.58692	8.19710	-.06747	-.36099	.36697	.06327	-.27665	.01547	-.00191	.00002
		GRADIENT	-.00001	.93375	.01148	.02197	.08262	.00353	-.01670	.00119	.00002	-.00002

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.998	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	9.822	-.190	.58793	4.02219	-.11365	-.37733	-.00033	.04716	-.20596	.01132	-.00224	.00020
	9.715	2.393	.58937	6.27375	-.05987	-.30188	.21788	.05436	-.25538	.01405	-.00211	.00005
		4.416	.59040	8.32394	-.08454	-.41242	.37887	.06425	-.28167	.01515	-.00182	.00078
		GRADIENT	.00054	.93124	.00698	-.00595	.08243	.00367	-.01656	.00084	.00009	.00021

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.608	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	14.941	-.076	.58772	4.08571	-.06537	-.37283	.02484	.04739	-.21199	.01023	-.00204	.00019
	14.567	2.433	.58701	6.34658	-.07447	-.40100	.22998	.05475	-.25967	.01286	-.00199	.00023
		4.425	.58680	8.32952	-.05492	-.38851	.39147	.06510	-.28534	.01447	-.00173	.00070
		GRADIENT	-.00021	.94105	.00207	-.00381	.08147	.00389	-.01641	.00095	.00007	.00020

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.742	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	29.812	-.160	.58720	4.00738	-.10009	-.36988	.02917	.04673	-.21290	.01109	-.00260	.00016
	29.770	2.421	.58738	6.31885	-.11181	-.40752	.24933	.05443	-.26400	.01260	-.00238	.00046
		4.475	.58798	8.40410	-.11226	-.35652	.41677	.06571	-.29104	.01444	-.00220	.00030
		GRADIENT	.00016	.94646	-.00271	.00215	.08370	.00405	-.01698	.00072	.00009	.00011

ARC 14-120(CA238) 747/1 ATI 0251 (CARRIER DATA)

(RNH020) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

OZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.518	-1.105	.58472	4.02971	.03590	-.35779	.04208	.04615	-.21187	.01047	-.00266	.00042
44.662	2.474	.58704	6.37077	-.16221	-.37945	.26242	.03437	-.26409	.01292	-.00250	.00038
44.473	4.486	.58677	8.39738	-.08498	-.47223	.43421	.06557	-.29191	.01493	-.00242	.00070
	GRADIENT	.00047	.34707	-.02887	-.02190	.08540	.00418	-.01756	.00097	.00005	.00006

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 211 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.110	.173	.59032	4.13765	.05551	-.20611	-.06334	.04682	.11822	.00849	-.00135	.00045
3.078	2.255	.58980	6.12604	.06801	-.21105	.10532	.04879	.08119	.01427	-.00158	.00059
3.099	4.353	.58919	8.25467	-.06491	-.16472	.27168	.05429	.04417	.01723	-.00156	.00054
	GRADIENT	-.03027	.98490	-.02885	.00992	.08014	.00179	-.01771	.00209	-.00005	.00002

PARAMETRIC DATA

RUN NO. 212 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.673	-1.126	.58936	4.09240	-.18828	-.18525	-.08121	.04657	.12477	.00935	-.00161	.00004
7.105	2.399	.59041	6.25655	.15853	-.09697	.13104	.04882	.07301	.01445	-.00156	.00078
7.181	4.355	.59012	8.27549	-.01836	-.15793	.28617	.05457	.03955	.01661	-.00151	.00049
	GRADIENT	.00018	.92581	.04263	.00747	.08208	.00174	-.01909	.00164	.00002	.00011

PARAMETRIC DATA

RUN NO. 213 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.888	-.253	.58982	3.93747	-.15837	-.11137	-.08627	.04654	.12488	.00853	-.00150	.00024
10.133	2.398	.58989	6.31405	.06954	-.24594	.13476	.04856	.07304	.01447	-.00149	.00114
9.989	4.413	.59253	8.33333	-.07054	-.19440	.29597	.05484	.03731	.01604	-.00134	.00058
	GRADIENT	.00015	.94407	.02227	-.01948	.08199	.00173	-.01881	.00162	.00003	.00009

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 ATI 0251 (CARRIER DATA)

(RNH021) ( 08 OCT 75 )

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(RNH021) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 214/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.808	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	14.795		4.11715	-15706	-17204	-.05334	.04658	.11953	.00896	-.00146	-.00019
	14.946		6.35432	.07017	-.23071	.14633	.04884	.07167	.01314	-.00129	.00073
		GRADIENT	8.36005	-.10634	-.11922	.30240	.05490	.03621	.01659	-.00130	.00118
			.94963	.01505	.01022	.37985	.00182	-.01872	.00171	.00004	.00031

RUN NO. 215/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.743	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	29.755		4.01695	-.08435	-19008	-.05161	.04561	.12016	.00888	-.00170	.00051
	29.747		6.37588	.09984	-.25948	.16654	.04843	.06741	.01456	-.00170	.00082
		GRADIENT	8.53645	-.09113	-.25259	.32362	.05473	.03291	.01656	-.00159	.00141
			.94850	.00278	-.01453	.08270	.00195	-.01928	.00172	.00002	.00019

RUN NO. 216/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.609	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	44.499		4.02468	-.01984	-.25920	-.03842	.04511	.12212	.00772	-.00140	.00080
	44.744		6.42453	-.11469	-.27177	.18601	.04819	.06671	.01450	-.00164	.00070
		GRADIENT	8.26444	-.16824	-.15241	.32904	.05431	.03397	.01605	-.00158	.00127
			.95288	-.03368	.02181	.08308	.00201	-.01998	.00194	-.00005	.00010

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 221/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.175	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	7.048		8.11954	-.16244	-.11696	-.02845	.04460	-.11142	.00834	-.00090	.00009
	7.827		10.26950	-.05073	-.21394	.14571	.04893	-.14954	.01028	-.00080	.00046
		GRADIENT	4.374	-.15546	-.21015	.30951	.05692	-.18197	.01171	-.00076	.00051
			1.01450	.00246	-.02258	.08057	.00292	-.01683	.00081	.00003	.00010

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(RNH022) ( 08 OCT 75 )



ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH022) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BRF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 222/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	10.008	ALPHAC	.095	MACH	.58707	ALPHA0	8.06837	DX	-.20800	DY	-.19570	CL	-.03663	CD	.04477	CLM	-.11814	CY	.00828	CYN	-.00125	CBL	.00049
	9.794		2.462		.58734		10.36610		-.06785		-.15123		.16424		.05010		-.16828		.01112		-.00123		.00033
	10.168		4.329		.58785		12.32470		-.115342		-.17388		.31496		.05768		-.19643		.01270		-.00088		.00054
		GRADIENT	.00017		.00017		.95815		.01487		.00567		.37941		.00287		-.01781		.00100		.00008		.00001

RUN NO. 223/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.875	ALPHAC	-.131	MACH	.58685	ALPHA0	8.01212	DX	-.19848	DY	-.24112	CL	-.02753	CD	.04527	CLM	-.13820	CY	.00709	CYN	-.00080	CBL	-.00015
	15.107		2.479		.58648		10.42410		-.11788		-.18222		.18549		.05115		-.19261		.01074		-.00090		.00040
	14.650		4.467		.58705		12.40420		-.05808		-.21425		.34208		.06023		-.22298		.01339		-.00091		.00041
		GRADIENT	.00003		.00003		.95356		.03055		.00669		.08044		.00320		-.01856		.00137		-.00002		.00013

RUN NO. 224/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.663	ALPHAC	-.130	MACH	.58892	ALPHA0	7.98338	DX	-.10589	DY	-.11844	CL	.00288	CD	.04584	CLM	-.17357	CY	.00975	CYN	-.00171	CBL	-.00014
	30.014		2.540		.58798		10.47220		-.08622		-.13268		.22549		.05297		-.23013		.01261		-.00177		.00020
	30.212		4.360		.58896		12.37080		-.18388		-.19792		.37473		.06205		-.25773		.01448		-.00173		.00047
		GRADIENT	.00002		.00002		.97369		-.01553		-.01678		.08285		.00354		-.01892		.00106		-.00001		.00014

RUN NO. 225/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.608	ALPHAC	-.097	MACH	.58819	ALPHA0	8.00014	DX	-.04496	DY	-.19464	CL	.02323	CD	.04572	CLM	-.18928	CY	.00991	CYN	-.00223	CBL	.00044
	44.758		2.520		.58859		10.43710		-.06430		-.22195		.24631		.05313		-.24485		.01282		-.00237		.00102
	44.921		4.300		.58930		12.28420		-.18464		-.16737		.39515		.06240		-.27084		.01547		-.00233		.00090
		GRADIENT	.00024		.00024		.97103		-.02995		.00496		.08463		.00372		-.01875		.00125		-.00002		.00011

RUN NO. 226/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.329	ALPHAC	-.122	MACH	.58776	ALPHA0	8.01036	DX	-.00488	DY	-.17679	CL	.02403	CD	.04574	CLM	-.19080	CY	.00994	CYN	-.00235	CBL	.00021
	50.199		2.456		.58928		10.37780		-.00681		-.25490		.23928		.05290		-.24627		.01252		-.00234		.00092
	50.308		4.443		.58798		12.41190		-.14747		-.12834		.40942		.06374		-.27527		.01577		-.00236		.00093
		GRADIENT	.00007		.00007		.96199		-.02976		.00863		.08438		.00389		-.01865		.00126		-.00000		.00016

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH023) ( 08 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BRFF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 231/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.160	.028	.58722	5.96832	-.09825	-.23409	-.02521	.04613	-.13867	.00897	-.00080	-.00018
3.398	2.478	.58690	8.39557	-.15849	-.28051	.17253	.05185	-.19200	.01061	-.00084	.00029
3.235	4.342	.58675	10.26840	-.07571	-.33921	.32445	.06000	-.22050	.01280	-.00093	.00041
	GRADIENT	-.00011	.99639	.00370	-.02409	.38103	.00317	-.01911	.00088	-.00003	.00014

RUN NO. 232/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.044	-.157	.58689	5.98727	-.15115	-.25234	-.03030	.04621	-.14920	.00824	-.00098	-.00013
7.210	2.438	.58783	8.31873	.02879	-.21173	.18257	.05227	-.21040	.01018	-.00086	.00042
7.208	4.444	.58732	10.35950	-.09076	-.26838	.34468	.06170	-.24099	.01178	-.00072	.00047
	GRADIENT	.00011	.94774	.01582	-.00257	.08152	.00332	-.02012	.00077	.00005	.00013

RUN NO. 233/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.588	-.079	.58710	6.07114	-.10027	-.30779	-.01468	.04640	-.16112	.00822	-.00105	.00004
9.981	2.449	.58742	8.36358	.04293	-.30356	.19149	.05280	-.21851	.01045	-.00088	.00009
9.714	4.418	.58742	10.33770	-.03724	-.32484	.35595	.06217	-.24779	.01185	-.00069	.00048
	GRADIENT	.00007	.94678	.01599	-.00354	.08237	.00346	-.01943	.00081	.00008	.00009

RUN NO. 234/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.480	-.060	.58866	6.07355	-.09631	-.27927	-.00018	.04658	-.17626	.00819	-.00110	.00031
14.703	2.510	.58715	8.40095	.04960	-.33790	.21634	.05369	-.23345	.01005	-.00079	.00024
14.839	4.425	.58701	10.36750	-.09613	-.31874	.36548	.06306	-.25929	.01224	-.00075	.00064
	GRADIENT	-.00038	.95454	.00318	-.00958	.08168	.00363	-.01872	.00089	.00008	.00007

RUN NO. 235/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.767	-.083	.58751	6.07234	-.13999	-.25442	.02087	.04629	-.19402	.00963	-.00212	.00058
29.743	2.454	.58780	8.35515	-.00939	-.21638	.26511	.05355	-.24750	.01166	-.00186	.00059
29.929	4.441	.58780	10.39440	-.17552	-.28857	.39717	.06423	-.27715	.01406	-.00178	.00066
	GRADIENT	.00007	.95279	-.00517	-.00553	.08308	.00391	-.01850	.00097	.00007	.00002

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 236/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.538	-.030	6.08798	.01963	-.30457	.03719	.04640	-.20345	.01053	-.00233	-.00019
44.541	2.408	8.29718	-.12451	-.27163	.24488	.05351	-.25544	.01243	-.00241	.00088
44.965	4.398	10.36730	-.16344	-.27768	.41381	.06421	-.28398	.01499	-.00226	.00083
	GRADIENT	.96437	-.04201	.00635	.08508	.00398	-.01831	.00100	.00001	.00024

RUN NO. 237/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
49.951	-.140	5.98166	.07546	-.38741	.02722	.04599	-.20195	.01059	-.00252	.00043
49.970	2.539	8.41739	-.16393	-.35672	.25555	.05409	-.25964	.01262	-.00240	.00083
50.050	4.426	10.35530	-.17706	-.34245	.41604	.06448	-.28608	.01467	-.00216	.00062
	GRADIENT	.95450	-.05759	.00995	.08515	.00398	-.01863	.00099	.00008	.00005

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 241/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.790	.104	5.92147	-.15532	-.03671	-.10177	.04472	.18137	.00694	-.00108	.00033
3.147	2.378	8.27250	-.05770	-.03732	.09081	.04665	.13445	.01264	-.00148	.00018
3.235	4.382	10.30860	-.08859	-.02095	.24911	.05139	.09984	.01544	-.00129	.00076
	GRADIENT	1.02571	.01621	.00360	.08208	.00154	-.01909	.00200	-.00005	.00010

RUN NO. 242/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.214	-.107	6.05432	-.15883	-.13415	-.10083	.04505	.17850	.00757	-.00131	.00003
7.169	2.445	8.32441	-.04069	-.07016	.10612	.04715	.11955	.01178	-.00133	.00067
7.223	4.433	10.35700	-.07466	-.00760	.26581	.05253	.08537	.01579	-.00127	.00082
	GRADIENT	.94519	.02130	.02775	.08079	.00161	-.02064	.00180	.00001	.00018

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ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(RNH024) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .500

PARAMETRIC DATA

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.900	-.036	.58773	6.13824	-.18639	-.04378	-.08434	.04510	.16852	.00636	-.00100	.00047
9.833	2.466	.58745	8.36642	.00386	-.04115	.11696	.04735	.11195	.01200	-.00119	.00083
9.797	4.354	.58776	10.29090	-.10428	-.09073	.26424	.05252	.07969	.01454	-.00111	.00098
	GRADIENT	.00000	.94311	.02173	-.01008	.07947	.00165	-.02036	.00188	-.00003	.00012

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.827	-.163	.58789	6.00907	-.12109	-.00497	-.08892	.04520	.16151	.00644	-.00116	.00044
14.725	2.499	.58804	8.38433	.06072	-.02456	.13188	.04765	.10173	.01127	-.00097	.00082
14.404	4.287	.58739	10.19090	-.02626	.04104	.27390	.05293	.07118	.01484	-.00110	.00068
	GRADIENT	-.00010	.93614	.02495	.00897	.08165	.00167	-.02047	.00188	.00002	.00005

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.598	-.049	.58755	6.07204	-.10332	-.04473	-.05359	.04539	.14155	.00766	-.00147	.00005
29.697	2.432	.58755	8.35352	-.03171	-.01269	.14830	.04770	.09113	.01278	-.00152	.00086
29.731	4.487	.58751	10.42190	-.14258	-.06341	.31514	.05433	.05330	.01594	-.00170	.00093
	GRADIENT	-.00001	.95764	-.00737	-.00354	.08129	.00193	-.01949	.00183	-.00005	.00020

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.528	-.131	.58586	5.98327	.01971	-.05457	-.05172	.04491	.13885	.00776	-.00161	.00041
44.796	2.390	.58578	8.30857	-.16445	-.09489	.16258	.04753	.08478	.01432	-.00189	.00054
44.981	4.445	.58714	10.42130	-.16873	-.18341	.32867	.05407	.04644	.01680	-.00197	.00111
	GRADIENT	.00027	.96813	-.04237	-.02770	.08320	.00197	-.02024	.00200	-.00008	.00015

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
49.996	-.101	.58611	6.01605	.05285	-.02120	-.04505	.04501	.13586	.00856	-.00175	.00010
50.084	2.534	.58686	8.42955	-.20397	-.03470	.17791	.04786	.08023	.01444	-.00193	.00047
50.059	4.394	.58763	10.32850	-.10617	-.10654	.33087	.05397	.04657	.01610	-.00183	.00098
	GRADIENT	.00034	.95645	-.03952	-.01806	.08369	.00193	-.01995	.00171	-.00002	.00019

ARC 14-120(CA238) 747/1 AT1 0251 (CARRIER DATA)

(RNH025) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.209	.039	8.00091	-.09563	.11623	-.12186	.04243	.21698	.00714	-.00168	.00064
7.216	2.367	10.24160	-.08863	.00464	.07079	.04424	.17498	.00992	-.00133	.00126
7.326	4.353	12.30340	-.05354	-.00023	.22079	.04884	.14784	.01428	-.00159	.00092
GRADIENT		.99623	.00956	-.02759	.07951	.00146	-.01608	.00164	.00003	.00007

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.339	-.027	8.05788	-.08374	.10359	-.11125	.04324	.20961	.00617	-.00148	.00041
10.040	2.372	10.31470	-.03608	.05505	.07158	.04455	.16486	.00941	-.00129	.00102
10.061	4.478	12.45100	-.07388	.02201	.24542	.05016	.13120	.01546	-.00169	.00076
GRADIENT		.97434	.00260	-.01816	.07910	.00151	-.01743	.00205	-.00004	.00008

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.643	-.013	8.10708	-.11966	.04505	-.09725	.04404	.19053	.00667	-.00140	.00033
15.082	2.543	10.48700	-.06077	.02168	.10901	.04615	.14051	.01079	-.00131	.00056
14.801	4.374	12.33140	-.09089	-.03326	.25149	.05071	.11376	.01325	-.00093	.00160
GRADIENT		.96086	.00761	-.01730	.07957	.00148	-.01763	.00151	.00010	.00028

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.827	-.162	7.96542	-.13995	.04759	-.08432	.04448	.16487	.00714	-.00146	.00024
30.228	2.450	10.41380	-.12322	.00837	.12569	.04698	.11408	.01208	-.00147	.00110
30.232	4.437	12.44160	-.19907	-.04902	.28952	.05252	.07927	.01514	-.00143	.00133
GRADIENT		.97138	-.01187	-.02070	.08124	.00170	-.01865	.00175	.00001	.00024

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.600	-.132	7.96473	-.06606	-.01682	-.06768	.04440	.15230	.00798	-.00178	.00032
45.018	2.364	10.31080	-.11022	.01804	.14415	.04676	.10027	.01370	-.00195	.00080
44.806	4.412	12.38870	-.19317	-.00796	.30707	.05291	.06419	.01592	-.00186	.00133
GRADIENT		.97236	-.02761	.00238	.08256	.00184	-.01944	.00177	-.00002	.00022

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH025) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
49.823	-.233	.58747	7.83733	.02097	-.05236	-.07201	.04425	.15222	.00590	-.00144	.00061
50.763	2.449	.58807	10.43110	-.09531	.03018	.15894	.04678	.09627	-.01240	-.00166	.00132
50.761	4.339	.58684	12.37400	-.20688	.07273	.30917	.05282	.06192	.01670	-.00202	.00116
	GRADIENT	-.00011	.99048	-.04939	.02759	.08355	.00181	-.01982	.00237	-.00012	.00013

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(RNH027) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 261 / 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.310	.046	.58593	8.02000	-.10996	.07740	-.03529	.04409	-.09928	.00698	-.00105	.00040
7.309	2.283	.58706	10.17530	-.10062	.09110	.15226	.04904	-.14415	.01072	-.00116	-.00002
7.865	4.688	.58535	12.29900	-.14232	.04415	.31003	.05657	-.17512	.01089	-.00094	.00098
	GRADIENT	.00011	1.00780	-.00740	-.00757	.08145	.00293	-.01792	.00094	.00005	.00013

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 262 / 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.835	-.171	.58650	7.97637	-.17277	.10647	-.04409	.04447	-.10462	.00815	-.00126	-.00009
9.901	2.437	.58620	10.34850	-.05317	.03987	.16781	.04981	-.15931	.00936	-.00099	.00090
9.652	4.384	.58597	12.31440	-.08957	.06373	.32133	.05794	-.18979	.01213	-.00094	.00078
	GRADIENT	-.00012	.95000	.01979	-.01027	.08028	.00291	-.01882	.00085	.00007	.00020

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 263 / 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.936	-.143	.58646	8.01648	-.19035	.06635	-.02627	.04498	-.12749	.00904	-.00156	-.00020
14.990	2.462	.58598	10.39360	-.08235	.03567	.18739	.05111	-.18452	.01024	-.00156	.00041
15.447	4.479	.58597	12.50860	-.16821	.04642	.34830	.06013	-.21549	.01366	-.00146	.00072
	GRADIENT	-.00009	.96904	.00653	-.00242	.08108	.00323	-.01938	.00097	.00002	.00020

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.00016 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600 MACH =

PARAMETRIC DATA

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.711	-.161	.58652	7.95935	-.14677	.03516	.00060	.04518	-.16413	.00993	-.00216	-.00001
29.841	2.529	.58531	10.44460	-.10279	.05502	.21999	.05230	-.22170	.01176	-.00201	.00085
30.092	4.385	.58590	12.37600	-.13616	.01473	.37478	.06192	-.25042	.01377	-.00170	.00069
	GRADIENT		.96822	.00334	-.00364	.08226	.00361	-.01916	.00083	.00010	.00017

REFERENCE DATA

RUN NO. 265/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .58533 ALPHA0 7.98864 DX -.08756 DY .00438 CL .02800 CD .04545 CLM -.18314  
 .58607 10.45630 -.09962 .06035 .24526 .05270 .23879 .01335 -.00257  
 .58533 12.35100 -.18554 -.02875 .39876 .06244 .26591 .01420 -.00277  
 .00002 .96849 -.02062 -.00540 .08251 .00371 -.01861 .00075 .00008  
 GRADIENT

PARAMETRIC DATA

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.205	-.137	.58469	7.98867	.06098	.04605	.01278	.04467	-.18067	.01027	-.00275	.00012
50.115	2.437	.58577	10.34730	-.13316	.05734	.23699	.05232	-.24068	.01361	-.00285	.00059
50.310	4.427	.58519	12.39560	-.16478	.07898	.41124	.06330	-.27014	.01463	-.00238	.00069
	GRADIENT		.96322	-.05071	.00708	.08729	.00403	-.01978	.00097	.00008	.00013

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 237.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.00016 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600 MACH =

PARAMETRIC DATA

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.140	2.460	.58657	8.27095	9.88371	.00383	.18345	.05086	-.18476	.01162	-.00172	.00028
3.154	4.481	.58709	10.38510	9.89607	.14029	.35199	.06019	-.21504	.01322	-.00151	.00061
	GRADIENT		1.03598	.00611	.06751	.08337	.00462	-.01498	.00079	.00010	.00017

ORIGINAL PAGE IS OF POOR QUALITY





ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(RNH029) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 50.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 291/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.274	2.465	.58846	10.34390	9.93909	.03727	.17081	.04698	-.14367	.01091	-.00143	.00042
7.616	4.442	.58807	12.41160	9.89734	.03280	.33408	.05752	-.17046	.01379	-.00137	.00043
	GRADIENT	-.00020	1.04555	-.02111	-.00226	.08256	.00432	-.01355	.00146	.00003	.00001

RUN NO. 292/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.037	2.057	.58779	10.16860	9.84159	-.01357	.14656	.04824	-.14754	.01039	-.00142	.00068
10.105	4.486	.58837	12.43630	9.91158	.06365	.34631	.05869	-.18727	.01258	-.00108	.00083
	GRADIENT	.00024	.93338	.02881	.03178	.08221	.00430	-.01635	.00090	.00014	.00006

RUN NO. 293/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.073	2.020	.58818	10.13820	9.83260	.09566	.15828	.04928	-.17107	.00935	-.00094	.00015
14.864	4.412	.58829	12.34200	9.91415	.05812	.35290	.05951	-.20976	.01141	-.00073	.00063
	GRADIENT	.00005	.92115	.03409	-.01569	.08135	.00427	-.01617	.00086	.00009	.00020

RUN NO. 294/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.231	2.128	.58847	10.25250	9.79538	.05260	.19833	.05083	-.21457	.01145	-.00177	.00021
29.953	4.510	.58839	12.45730	9.85045	.04924	.39123	.06250	-.25027	.01349	-.00159	.00064
	GRADIENT	-.00003	.92581	.02312	-.00141	.08100	.00490	-.01499	.00086	.00008	.00018

RUN NO. 295/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.559	2.087	.58898	10.13000	9.88695	.06428	.20947	.05126	-.23173	.01259	-.00261	.00052
45.001	4.446	.58942	12.41470	9.82664	.13076	.40818	.06297	-.26570	.01545	-.00250	.00073
	GRADIENT	.00019	.96844	-.02556	.02818	.08423	.00497	-.01440	.00121	.00005	.00009

RUN NO. 296/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.108	2.027	.58684	10.07900	9.99054	.05093	.20709	.05073	-.23355	.01233	-.00268	.00096
50.709	4.547	.58697	12.54340	9.89004	.07529	.41781	.06352	-.26991	.01416	-.00220	.00152
	GRADIENT	.00005	.97795	-.03988	.00967	.08362	.00508	-.01443	.00073	.00019	.00022

ARC 14-120(CA23B) 74771 AT1 03SI (CARRIER DATA)

(RNH030) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BPEF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 301/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.146	ALPHAC	2.474	MACH	ALPHAO	10.34670	DX	19.88150	DY	.03398	CL	.18066	CD	.04865	CLM	.01137	CYN	-.00164	CBL	.00098
	7.541	GRADIENT	4.355			12.31920	19.89100	.03786	.00206	.08322	.33711	.05663	.00424	-.16495	.01354	-.00151		.00113		
						1.04919	.00505							-.01118	.00116	.00007		.00008		

RUN NO. 302/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	10.020	ALPHAC	2.172	MACH	ALPHAO	10.13010	DX	19.84880	DY	.04975	CL	.15720	CD	.04799	CLM	.01073	CYN	-.00150	CBL	.00071
	14.608	GRADIENT	4.441			12.43730	19.90010	.35641	.02053	.08052	.35641	.05833	.00418	-.18466	.01313	-.00131		.00085		
						.93258	.02074							-.01440	.00097	.00008		.00006		

RUN NO. 303/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.887	ALPHAC	2.172	MACH	ALPHAO	10.26770	DX	19.84270	DY	.03141	CL	.17727	CD	.04915	CLM	.01029	CYN	-.00125	CBL	.00048
	14.608	GRADIENT	4.441			12.34570	19.92050	.36229	.02009	.08157	.36229	.05939	.00451	-.20755	.01249	-.00104		.00095		
						.91607	.03430							-.01441	.00097	.00009		.00020		

RUN NO. 304/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.123	ALPHAC	1.934	MACH	ALPHAO	10.05950	DX	19.88270	DY	.04308	CL	.8238	CD	.04920	CLM	.01024	CYN	-.00183	CBL	.00063
	29.781	GRADIENT	4.549			12.46690	19.93250	.09516	.01991	.08421	.40260	.06231	.00501	-.24934	.01372	-.00169		.00146		
						.92058	.01904							-.01462	.00133	.00006		.00032		

RUN NO. 305/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.889	ALPHAC	2.080	MACH	ALPHAO	10.16970	DX	19.86300	DY	.06580	CL	.21673	CD	.05114	CLM	.01213	CYN	-.00259	CBL	.00053
	44.724	GRADIENT	4.413			12.35030	19.85900	.09727	.01349	.07779	.39819	.06217	.00473	-.26376	.01411	-.00233		.00110		
						.93477	-.00171							-.01347	.00085	.00011		.00025		

RUN NO. 306/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.425	ALPHAC	2.067	MACH	ALPHAO	10.11560	DX	19.92850	DY	-.00602	CL	.21223	CD	.05077	CLM	.01197	CYN	-.00271	CBL	.00116
	50.408	GRADIENT	4.416			12.37800	19.89900	.08025	.03673	.08559	.41326	.06280	.00512	-.26768	.01535	-.00255		.00091		
						.94608	-.01256							-.01343	.00144	.00007		.00011		

ARC 14-120(CA23B) 747/1 AT1 03SI (CARRIER DATA)

(RNH031) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 6.000 DX = 20.000  
 .000 MACH = .600

RUN NO. 311/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.139	2.440	8.31512	19.87130	.05947	.19329	.05068	-.20251	.01070	-.00154	.00080
7.034	4.374	10.27020	19.92830	.09448	.36175	.06006	-.22966	.01211	-.00120	.00049
	GRADIENT	1.01056	.02947	.01809	.08708	.00485	-.01404	.00073	.00018	-.00016

RUN NO. 312/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.707	1.989	8.07854	19.90690	.06734	.16921	.04952	-.20084	.01027	-.00146	.00053
9.690	4.549	10.45100	19.96030	.05123	.38573	.06189	-.24076	.01243	-.00099	.00090
	GRADIENT	.92663	.02086	-.00629	.08457	.00483	-.01559	.00084	.00018	.00014

RUN NO. 313/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.857	1.961	8.08432	19.86250	.07407	.17433	.05003	-.21485	.00993	-.00117	.00119
14.654	4.524	10.40250	19.96860	.01904	.39342	.06279	-.25393	.01239	-.00085	.00046
	GRADIENT	.90449	.04140	-.02147	.08548	.00498	-.01525	.00096	.00012	-.00028

RUN NO. 314/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.665	1.982	8.07297	19.93210	.07184	.19799	.05114	-.23905	.01222	-.00235	.00062
29.802	4.262	10.17670	19.97520	.06091	.39002	.06242	-.27215	.01244	-.00172	.00097
	GRADIENT	.92254	.01890	-.00479	.08422	.00495	-.01452	.00010	.00028	.00015

RUN NO. 315/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.676	1.970	8.03821	19.92050	.09661	.21303	.05143	-.24740	.01186	-.00253	.00039
44.732	4.370	10.28860	19.89040	.06355	.41301	.06348	-.28107	.01612	-.00265	.00102
	GRADIENT	.93795	-.01254	-.01378	.08334	.00502	-.01404	.00178	-.00005	.00027

RUN NO. 316/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.207	2.003	8.08618	20.01850	.01577	.21472	.05142	-.24963	.01270	-.00268	.00079
50.098	4.371	10.27800	19.99160	.02241	.41700	.06351	-.28269	.01485	-.00239	.00115
	GRADIENT	.92545	-.01136	.00280	.08541	.00510	-.01396	.00091	.00012	.00015

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(RN4032) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 321/ 0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
DZ	MACH	ALPHA	DX	CL	CLM
3.217	.58661	8.24764	-.07736	.17002	-.19755
3.310	.58746	10.25180	-.08334	.32833	-.22798
	.00044	1.03284	-.00308	.08159	-.01566
	GRADIENT				
				CY	CYN
				.00425	-.00524
				.00287	-.00486
				-.00071	.00019
					CBL
					.00518
					.00649
					.00067
RUN NO. 322/ 0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
DZ	MACH	ALPHA	DX	CL	CLM
7.247	.58731	8.08363	-.11409	.15579	-.19890
7.563	.58718	10.31420	-.03860	.34877	-.24257
	-.00005	.93692	.03171	.08106	-.01834
	GRADIENT				
				CY	CYN
				.00503	-.00421
				.00231	-.00241
				-.00114	.00076
					CBL
					.00413
					.00257
					.00061
RUN NO. 323/ 0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
DZ	MACH	ALPHA	DX	CL	CLM
10.032	.58740	8.10072	-.16247	.15782	-.20628
9.896	.58733	10.27970	-.02661	.35111	-.24753
	-.00003	.91286	.05691	.08098	-.01728
	GRADIENT				
				CY	CYN
				.00498	-.00330
				.00187	-.00153
				-.00130	.00074
					CBL
					.00409
					.00491
					.00034
RUN NO. 324/ 0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
DZ	MACH	ALPHA	DX	CL	CLM
15.217	.58735	8.18816	-.19638	.17690	-.21986
15.047	.58780	10.19140	-.07071	.35662	-.25667
	.00021	.91066	.05713	.08170	-.01673
	GRADIENT				
				CY	CYN
				.00389	-.00171
				.00145	.00002
				-.00111	.00079
					CBL
					.00309
					.00318
					.00004
RUN NO. 325/ 0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
DZ	MACH	ALPHA	DX	CL	CLM
29.998	.58747	8.07435	-.18575	.19508	-.23483
29.890	.58772	10.22660	-.12371	.38699	-.27318
	.00011	.92552	.02668	.08253	-.01649
	GRADIENT				
				CY	CYN
				.00516	-.00001
				.00303	.00160
				-.00091	.00069
					CBL
					.00158
					.00181
					.00010
RUN NO. 326/ 0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
DZ	MACH	ALPHA	DX	CL	CLM
44.648	.58755	8.02243	-.07292	.20651	-.24268
44.989	.58817	10.27170	-.12245	.40294	-.27851
	.00026	.95039	-.02093	.08300	-.01514
	GRADIENT				
				CY	CYN
				.00703	-.00053
				.00729	.00033
				.00011	.00037
					CBL
					.00132
					.00160
					.00012

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(RNH032) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
SCALE = .0125

RUN NO. 327/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 49.978 MACH ALPHA DZ 49.978 MACH ALPHA  
49.978 1.969 8.02344 10.13650 10.13650 .21371 .05131 .04858  
50.163 4.264 10.19110 10.15550 10.15550 .39983 .05280 .05280  
GRADIENT .00044 .94453 -.01056 .00998 .08110 .00501 -.01506  
CLM CYN CBL  
CY .00866 -.00088  
CYN -.00011  
CBL .00157 .00033

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
TORB = 6.000 DX = .000  
DY = 10.000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(RNH033) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
SCALE = .0125

RUN NO. 331/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.500 MACH ALPHA DZ 7.500 MACH ALPHA  
7.500 2.446 10.34440 10.07820 10.07820 .16246 .04858  
7.613 4.292 12.27760 10.09130 10.09130 .30762 .05619 .05619  
GRADIENT -.00025 1.04761 -.04447 .00710 .07866 .00412 -.01608  
CLM CYN CBL  
CY .00203 -.00342  
CYN -.00162 -.00125  
CBL .00539 .00622 .00045

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
TORB = 8.000 DX = .000  
DY = 10.000 MACH = .600

RUN NO. 332/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ 10.263 MACH ALPHA DZ 10.263 MACH ALPHA  
10.263 1.907 10.03580 10.09230 10.09230 .2172 .04699 .04699  
9.859 4.322 12.24310 10.08730 10.08730 .31936 .05715 .05715  
GRADIENT -.00017 .91395 .05486 -.00207 .08184 .00421 -.01793  
CLM CYN CBL  
CY .00210 -.00280  
CYN -.00215 -.00007  
CBL .00548 .00577 .00012

RUN NO. 333/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ 15.012 MACH ALPHA DZ 15.012 MACH ALPHA  
15.012 1.933 10.03310 10.12510 10.12510 .14139 .04803 .04803  
14.957 4.327 12.27130 10.09060 10.09060 .33713 .05874 .05874  
GRADIENT .00009 .93488 .03905 -.01441 .08176 .00447 -.01736  
CLM CYN CBL  
CY .00143 -.00119  
CYN -.00187 .00400  
CBL .00381 .00400 .00008

RUN NO. 334/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ 29.834 MACH ALPHA DZ 29.834 MACH ALPHA  
29.834 1.968 10.02860 10.04890 10.04890 .17488 .04966 .04966  
29.957 4.352 12.31310 10.07440 10.07440 .37534 .06162 .06162  
GRADIENT .00009 .93534 .03905 -.01441 .08176 .00447 -.01736  
CLM CYN CBL  
CY .00101 -.00151  
CYN -.00141 .00373  
CBL .00100 .00000 .00000

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(RNHO33) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 335/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	CL	CD	CLM	CY	CYN	CBL
44.819	1.871	.58683	9.93320	-17406	.19100	.05048	-.22877	.00515	.00045	.00099
45.000	4.278	.58661	12.24790	-.20324	.38752	.06238	-.26698	.00551	.00129	.00168
	GRADIENT	-.00009	.96232	-.01213	.08167	.00495	-.01588	.00015	.00035	.00029

RUN NO. 336/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	CL	CD	CLM	CY	CYN	CBL
50.002	1.913	.58788	9.94862	-110542	.19477	.05033	-.23210	.00784	-.00037	.00112
50.443	4.260	.58739	12.23090	-.17171	.39026	.06201	-.26887	.00739	.00053	.00192
	GRADIENT	-.00021	.97225	-.02824	.08328	.00498	-.01566	-.00019	.00038	.00034

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(RNHO34) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 341/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	CL	CD	CLM	CY	CYN	CBL
1.515	-.031	.58648	5.90009	-.06742	-.04941	.04580	-.12412	.01337	-.00333	-.00008
1.466	2.266	.58717	8.09199	-.04621	.14793	.05056	-.17441	.01463	-.00299	.00055
1.364	4.259	.58774	10.13540	-.02054	.30740	.05895	-.20966	.01637	-.00286	.00063
	GRADIENT	.00029	.98649	.01088	.08325	.00304	-.01999	.00069	.00011	.00017

RUN NO. 342/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	CL	CD	CLM	CY	CYN	CBL
3.218	-.127	.58815	6.34215	-.10713	-.04746	.04548	-.12263	.01174	-.00329	.00056
2.877	2.324	.58765	8.16733	-.06245	.15886	.05102	-.18404	.01460	-.00306	.00054
3.380	4.353	.58723	10.29310	-.04005	.32087	.06000	-.21888	.01611	-.00281	.00047
	GRADIENT	-.00020	.94601	.01801	.08228	.00321	-.02160	.00098	.00011	-.00002

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1333.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 343/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.400	-.285	.58717	5.90381	-.13205	-.02328	-.04297	.04590	-.14010	.01182	-.00303	-.00020
7.390	2.312	.58697	8.21305	.07014	-.04725	.17326	.05172	-.20141	.01352	-.00264	.00058
7.046	4.212	.58774	10.11280	-.00640	-.04352	.32465	.06015	-.23194	.01445	-.00226	.00071
	GRADIENT	.00012	.93327	.03090	-.00478	.08185	.00311	-.02061	.00059	-.00017	.00021

RUN NO. 344/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.858	-.243	.58774	5.93582	-.13020	-.02468	-.03164	.04592	-.14784	.01123	-.00280	.00021
9.870	2.334	.58683	8.23296	.06279	-.03964	.17916	.05192	-.20917	.01291	-.00248	.00049
9.840	4.253	.58677	10.19170	-.05789	-.06921	.33463	.06093	-.23973	.01393	-.00198	.00069
	GRADIENT	-.00022	.94365	.01935	-.00968	.08150	.00328	-.02063	.00060	-.00018	.00011

RUN NO. 345/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.745	-.254	.58763	5.91142	-.11810	-.04966	-.02562	.04591	-.16048	.01036	-.00233	-.00008
14.663	2.332	.58672	8.21363	.06055	-.05815	.19437	.05245	-.22071	.01283	-.00198	.00014
14.715	4.248	.58738	10.17930	-.07864	-.07945	.34947	.06169	-.24990	.01400	-.00152	.00073
	GRADIENT	-.00007	.94469	.01218	-.00643	.08341	.00345	-.02006	.00082	-.00018	.00017

RUN NO. 346/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.743	-.267	.58604	5.88621	-.08203	-.00339	-.00276	.04594	-.18075	.01248	-.00293	-.00035
29.911	2.360	.58747	8.27416	.02282	-.04821	.22081	.05296	-.24053	.01384	-.00266	.00051
29.627	4.268	.58710	10.18430	-.09565	-.10290	.38015	.06277	-.26954	.01421	-.00195	.00030
	GRADIENT	.00025	.94540	-.00039	-.02165	.08447	.00365	-.01977	.00039	-.00021	.00015

RUN NO. 347/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.607	-.235	.58716	5.90152	-.00966	-.05370	.01604	.04572	-.19234	.01292	-.00323	-.00016
44.784	2.345	.58716	8.25624	-.13594	-.05628	.23662	.05278	-.24862	.01335	-.00297	.00083
44.631	4.291	.58767	10.22080	-.15327	.01683	.39906	.06300	-.27738	.01504	-.00263	.00083
	GRADIENT	.00011	.95215	-.03264	.01471	.08468	.00376	-.01895	.00045	-.00013	.00023

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ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(RNH034) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 348/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
49.960	-.239	.58785	5.88468	.08819	.01479	.01551	.04531	-.19230	.01105	-.00299	.00042
50.084	2.361	.58817	8.25858	-.16437	-.02815	.23899	.05259	-.25094	.01350	-.00286	.00091
50.051	4.269	.58761	10.19200	-.16268	-.05749	.40272	.06265	-.27941	.01518	-.00257	.00142
	GRADIENT	-.00004	.95296	-.05808	-.01606	.08589	.00378	-.01951	.00092	-.00009	.00022

RUN NO. 349/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
61.655	-.279	.58759	5.85348	.11708	-.13288	.01694	.04521	-.19273	.01090	-.00302	.00045
61.629	2.289	.58818	8.18336	-.19266	.00830	.24251	.05242	-.25337	.01360	-.00280	.00049
61.640	4.275	.58756	10.20200	-.16063	-.09148	.40928	.06295	-.28063	.01439	-.00228	.00113
	GRADIENT	.00000	.95272	-.06384	.01129	.08624	.00385	-.01951	.00078	-.00016	.00014

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(RNH035) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 351/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.392	.007	.58697	3.99746	-.07524	.05360	-.00122	.04772	-.19977	.01157	-.00206	.00044
3.273	2.270	.58780	6.14693	-.03598	.12459	.18857	.05341	-.23977	.01177	-.00168	.00037
3.233	4.244	.58795	8.16058	-.04991	.01675	.35002	.06294	-.26866	.01356	-.00131	.00041
	GRADIENT	.00023	.98179	.00625	-.00773	.08292	.00347	-.01630	.00046	-.00018	.00020

RUN NO. 352/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.633	-.212	.58702	4.00651	-.18854	.04314	-.00517	.04732	-.19786	.01145	-.00214	.00042
7.582	2.387	.58736	6.30510	.08734	.06432	.20924	.05383	-.24730	.01271	-.00170	.00033
7.362	4.282	.58712	8.22000	-.03484	.07605	.36135	.06332	-.27411	.01347	-.00125	.00003
	GRADIENT	.00003	.93448	.03851	.00737	.08162	.00350	-.01709	.00045	-.00020	.00011



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TABULATED SOURCE DATA - CA238

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ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(RNHD35) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA =  
 RUDDER =  
 LORB =  
 DY =

RUN NO. 353/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CY	CYN	CBL
9.664	-.213	.58759	3.95156	-.11309	.11144	.00046	.04709	.01087	-.00212	.00220
9.916	2.313	.58803	6.21534	.11618	.06173	.21313	.05356	.01296	-.00165	.00023
9.803	4.259	.58849	8.18827	-.02549	.36845	-.27696	.06311	.01375	-.00115	.00011
GRADIENT		.00018	.94488	.02304	-.00428	.08233	.00353	.00065	.00022	-.00002

RUN NO. 354/ 0

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CY	CYN	CBL
15.113	-.270	.58842	3.94923	-.19325	.04406	.00240	.04674	.01120	-.00188	-.00025
14.808	2.324	.58932	6.21535	-.05927	.08345	.22277	.05378	.01278	-.00135	-.00033
14.693	4.304	.58828	8.22508	-.07338	.38158	-.28065	.06366	.01320	-.00097	.00041
GRADIENT		-.00003	.93174	.02522	-.00631	.08300	.00365	.00045	.00020	.00014

RUN NO. 355/ 0

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CY	CYN	CBL
29.891	-.272	.58946	3.91348	-.06585	.08920	.01410	.04607	.01205	-.00274	.00040
29.979	2.346	.58900	6.26241	-.11845	.05612	.24000	.05338	.01442	-.00259	.00073
29.891	4.294	.58907	8.23413	-.17999	.07042	.40636	.05370	.01516	-.00205	.00075
GRADIENT		-.00009	.94363	-.02473	-.00459	.08594	.00380	.00069	.00015	.00008

RUN NO. 356/ 0

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CY	CYN	CBL
44.449	-.271	.58792	3.85960	.06793	.04655	.02695	.04590	.01268	-.00304	.00010
44.799	2.322	.58850	6.23703	-.14780	.04817	.24121	.06289	.01394	-.00260	.00038
44.865	4.260	.58630	8.20431	-.19731	.04498	.41150	.06323	.01564	-.00232	.00076
GRADIENT		.00022	.95651	-.05989	-.02012	.08474	.00376	.00064	.00016	.00014

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 4.000 DX = .000  
 .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 03S1 (CARRIER DATA)

(RNH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
1.654	2.302	.58711	8.14688	-.03672	.21706	.15517	.05166	-.17938	.04019	-.02004	.00347
2.469	4.194	.58755	10.19950	-.16900	.2141	.30568	.05955	-.21146	.04380	-.02035	.00365
	GRADIENT	.00023	1.08489	-.06991	-.00299	.07955	.00417	-.01695	.00191	-.00017	.00009

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.877	2.012	.58735	8.04539	-.10843	.16706	.14006	.05086	-.17568	.03928	-.02004	.00349
3.365	4.405	.58653	10.31600	-.07058	.17088	.33398	.06100	-.22127	.04461	-.02032	.00421
	GRADIENT	-.00034	.94906	.01582	.00160	.08105	.00424	-.01906	.00223	-.00012	.00030

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.393	2.013	.58735	8.11744	-.10956	.22780	.15692	.05162	-.19296	.04116	-.02099	.00368
7.226	4.376	.58622	10.26970	.01898	.18695	.34657	.06214	-.23484	.04394	-.02090	.00375
	GRADIENT	-.00048	.91080	.05440	-.01729	.08026	.00445	-.01772	.00118	.00004	.00003

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.858	2.049	.58585	8.14182	-.11920	.21021	.16741	.05204	-.19966	.04150	-.02132	.00395
10.104	4.457	.58629	10.39920	-.04720	.16889	.35828	.06301	-.24123	.04442	-.02106	.00447
	GRADIENT	.00018	.93734	.02990	-.0716	.07925	.00456	-.01726	.00121	.00011	.00021

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.553	2.097	.58585	8.15598	-.09596	.20236	.18313	.05269	-.21127	.04188	-.02155	.00425
14.643	4.474	.58527	10.36750	-.02118	.12947	.37808	.06402	-.25265	.04502	-.02122	.00419
	GRADIENT	-.00025	.93034	.03146	-.03066	.08201	.00476	-.01741	.00132	.00014	-.00003

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.819	2.159	.58550	8.24139	-.17520	.17624	.21619	.05323	-.23181	.04481	-.02338	.00473
29.992	4.411	.58504	10.35100	-.14877	.11332	.40131	.06460	-.26302	.04751	-.02291	.00463
	GRADIENT	-.00020	.93709	.01174	-.02795	.08223	.00505	-.01608	.00120	.00021	-.00004

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 367/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.057	2.052	.58538	8.16577	-.12614	.16956	.21606	.05255	-.23985	.04517	-.02391	.00511
44.937	4.371	.58637	10.31880	-.09769	.15247	.40553	.08456	-.27555	.04937	-.02368	.00466
	GRADIENT	.00043	.92837	.01227	-.03737	.08170	.00518	-.01539	.00181	.00010	-.00019

RUN NO. 368/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.129	2.015	.58474	8.08551	-.04310	.16630	.20586	.05234	-.23787	.04478	-.02399	.00468
50.420	4.439	.58435	10.37690	-.11005	.15838	.42895	.06530	-.27894	.04919	-.02346	.00465
	GRADIENT	-.00016	.94516	-.02761	-.00327	.09202	.00535	-.01694	.00182	.00022	-.00001

RUN NO. 369/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
62.057	2.140	.58502	8.24539	-.02430	.13774	.23842	.05304	-.24642	.04563	-.02365	.00468
61.853	4.416	.58414	10.35040	-.04193	.12725	.42405	.06510	-.28083	.04882	-.02322	.00488
	GRADIENT	-.00039	.92457	-.00774	-.00461	.08153	.00530	-.01511	.00140	.00019	.00009

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 371/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
1.955	.521	.58987	6.33729	-.10766	.09365	-.06065	.04533	.17746	.00858	-.00159	.00065
1.879	2.297	.59007	8.24052	-.10093	.06646	.07983	.04681	.14793	.01110	-.00142	.00041
1.932	4.335	.59089	10.27080	-.12705	.05405	.24186	.05177	.10923	.01463	-.00125	.00064
	GRADIENT	.00027	1.03052	-.00527	-.01028	.07932	.00171	-.01792	.00159	.00009	-.00000

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

(RNH037) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = 0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DZ	ALPHAC	MACH	RUN NO. 372/ 0			RN/L = 3.32			GRADIENT INTERVAL = -5.00/ 5.00			CY	CYN	CBL
			ALPHA0	DX	DY	CL	CD	CLM	CL	CLM				
3.611	-.073	.59019	6.14149	-.14594	.16043	-.10922	.04541	.19357	.00868	-.00184	-.00014	.00868	-.00184	-.00014
3.412	2.415	.59040	8.31124	.11055	.13546	.09485	.04713	.13800	.01034	-.00117	.00061	.01034	-.00117	.00061
3.341	4.372	.59036	10.30810	.00163	.12986	.24733	.05210	.10156	.01552	-.00132	.00077	.01552	-.00132	.00077
	GRADIENT	.00004	.93441	.03630	-.00723	.08029	.00147	-.02077	.00150	.00012	.00021	.00150	.00012	.00021

DZ	ALPHAC	MACH	RUN NO. 373/ 0			RN/L = 3.32			GRADIENT INTERVAL = -5.00/ 5.00			CY	CYN	CBL
			ALPHA0	DX	DY	CL	CD	CLM	CL	CLM				
7.238	-.184	.58959	5.97655	-.08660	.09567	-.10336	.04561	.18477	.00664	-.00121	-.00020	.00664	-.00121	-.00020
7.611	2.515	.58950	8.43460	.05996	.12690	.11878	.04794	.12241	.01145	-.00111	.00017	.01145	-.00111	.00017
7.497	4.363	.58887	10.32400	-.04563	.04585	.26276	.05287	.09073	.01350	-.00087	.00041	.01350	-.00087	.00041
	GRADIENT	-.00015	.95292	.01233	-.00931	.08066	.00154	-.02066	.00153	.00007	.00013	.00153	.00007	.00013

DZ	ALPHAC	MACH	RUN NO. 374/ 0			RN/L = 3.31			GRADIENT INTERVAL = -5.00/ 5.00			CY	CYN	CBL
			ALPHA0	DX	DY	CL	CD	CLM	CL	CLM				
10.003	-.096	.58840	6.09035	-.12387	.09762	-.08912	.04577	.17561	.00712	-.00119	-.00036	.00712	-.00119	-.00036
9.942	2.401	.58937	8.31062	.06698	.12280	.10834	.04745	.12200	.00927	-.00065	.00079	.00927	-.00065	.00079
10.030	4.474	.58839	10.42890	-.06324	.09804	.28119	.05362	.08335	.01346	-.00084	.00042	.01346	-.00084	.00042
	GRADIENT	.00001	.94747	.01539	.00043	.08098	.00168	-.02023	.00137	.00008	.00018	.00137	.00008	.00018

DZ	ALPHAC	MACH	RUN NO. 375/ 0			RN/L = 3.31			GRADIENT INTERVAL = -5.00/ 5.00			CY	CYN	CBL
			ALPHA0	DX	DY	CL	CD	CLM	CL	CLM				
14.990	.036	.58910	6.22162	-.14126	.13141	-.06674	.04583	.16329	.00671	-.00086	-.00021	.00671	-.00086	-.00021
14.729	2.374	.58974	8.27672	.05569	.06667	.11574	.04788	.11313	.01026	-.00062	.00008	.01026	-.00062	.00008
14.795	4.458	.58844	10.39350	-.06647	.08480	.28800	.05406	.07482	.01220	-.00046	.00025	.01220	-.00046	.00025
	GRADIENT	-.00014	.94208	.01827	-.01089	.08017	.00184	-.02004	.00125	.00009	.00010	.00125	.00009	.00010

DZ	ALPHAC	MACH	RUN NO. 376/ 0			RN/L = 3.32			GRADIENT INTERVAL = -5.00/ 5.00			CY	CYN	CBL
			ALPHA0	DX	DY	CL	CD	CLM	CL	CLM				
29.795	-.037	.58885	6.11690	-.12939	.12231	-.05277	.04562	.14620	.00729	-.00147	.00014	.00729	-.00147	.00014
29.929	2.359	.58821	8.28595	-.02203	.11292	.13528	.04769	.09828	.01198	-.00159	.00052	.01198	-.00159	.00052
30.138	4.506	.58919	10.47950	-.18963	.08067	.32081	.05480	.05821	.01363	-.00132	.00078	.01363	-.00132	.00078
	GRADIENT	.00007	.95931	-.01215	-.00906	.08217	.00200	-.01981	.00145	.00003	.00014	.00145	.00003	.00014

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(RNH037) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 377/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.027	-.096	.58823	6.08589	-.04783	.07474	-.06523	.04479	.14423	.00829	-.00194	.00005
44.952	2.497	.58995	8.42205	-.25301	.06594	.17043	.04800	.08536	.01255	-.00182	.00067
44.914	4.260	.58874	10.22770	-.09599	.12210	.32095	.05380	.05192	.01470	-.00190	.00074
	GRADIENT	.00015	.94708	-.01614	.01041	.08883	.00201	-.02130	.00148	.00001	.00016

RUN NO. 378/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.481	.036	.58791	6.20814	-.01251	.05409	-.03391	.04523	.13587	.00718	-.00168	.00032
50.592	2.316	.58759	8.27754	-.24803	.13582	.15326	.04752	.08905	.01288	-.00193	.00065
50.369	4.524	.58783	10.47610	-.19505	.10327	.34317	.05517	.04613	.01551	-.00200	.00084
	GRADIENT	-.00002	.95062	-.04101	.01109	.08400	.00221	-.01999	.00186	-.00007	.00012

RUN NO. 379/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
61.632	-.013	.58735	6.10612	.14628	.12051	-.03087	.04529	.13462	.00896	-.00195	-.00001
61.965	2.379	.58707	8.32028	-.22930	.09946	.16576	.04752	.08460	.01261	-.00178	.00066
61.651	4.408	.58790	10.33570	-.20140	.09337	.33989	.05448	.04524	.01426	-.00179	.00070
	GRADIENT	.00012	.95573	-.08096	-.00522	.08381	.00204	-.02024	.00121	.00004	.00016

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 381/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
1.603	.046	.58938	5.98392	-.16713	.08333	-.04880	.04452	-.07078	.01170	-.00290	-.00002
1.569	2.293	.58924	8.13110	.04218	.10096	.14417	.04876	-.12210	.01453	-.00274	-.00007
2.306	4.387	.58902	10.37170	-.12536	.08546	.30672	.05652	-.15668	.01735	-.00301	.00028
	GRADIENT	-.00008	1.01018	.01030	.00058	.08195	.00276	-.01982	.00130	-.00003	.00007

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(RNH038) ( 08 OCT 75 )

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(RNH038) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.468	.019	.58937	6.20728	-.19716	.10115	-.03665	.04449	-.07208	.01300	-.00374	.00028
3.699	2.422	.58831	8.36194	-.01894	.08959	.15576	.04902	-.13254	.01545	-.00322	.00039
3.469	4.425	.58815	10.37440	-.08950	.31410	.31410	.05730	-.16637	.01744	-.00319	.00048
	GRADIENT	-.00028	.94428	.02607	-.01062	.07963	.00287	-.02153	.00101	.00013	.00005

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.736	-.027	.58823	6.18939	-.22961	.06087	-.02844	.04481	-.09478	.01196	-.00299	.00006
6.902	2.422	.58845	8.27053	.07916	.08816	.17202	.04989	-.15187	.01473	-.00292	.00019
7.339	4.419	.58629	10.35840	-.08920	.09323	.33330	.05860	-.18763	.01704	-.00302	.00004
	GRADIENT	-.00042	.93444	.03510	.00742	.08138	.00306	-.02097	.00114	-.00000	-.00000

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.309	.047	.58749	6.26151	-.23948	.08783	-.01415	.04507	-.10751	.01265	-.00287	-.00010
9.703	2.409	.58687	8.30010	.02282	.05753	.17809	.05047	-.16249	.01406	-.00274	.00020
10.031	4.489	.58640	10.44550	-.12841	.04705	.34572	.05957	-.19899	.01631	-.00284	.00025
	GRADIENT	-.00025	.94000	.02694	-.00926	.08101	.00324	-.02065	.00082	.00001	.00008

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.037	-.141	.58573	6.06450	-.12720	.01465	-.03639	.04453	-.11806	.01178	-.00294	-.00003
14.866	2.495	.58615	8.39330	.08175	.07175	.19982	.05137	-.18426	.01409	-.00272	.00027
14.876	4.418	.58601	10.36830	-.05165	.07290	.35759	.06021	-.21679	.01501	-.00249	.00061
	GRADIENT	.00007	.94052	.02032	.01331	.08662	.00339	-.02187	.00072	.00010	.00014

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.004	-.165	.58674	6.01263	-.11334	.09307	.00938	.04521	-.16001	.01073	-.00272	.00035
29.816	2.497	.58734	8.40355	.03463	.06951	.22883	.05231	-.22075	.01309	-.00268	.00058
30.280	4.402	.58719	10.40330	-.16387	.04147	.37677	.06183	-.24950	.01368	-.00232	.00096
	GRADIENT	.00011	.95746	-.00681	-.01114	.08058	.00358	-.01980	.00066	.00008	.00013

(RNH038) ( 08 OCT 75 )

ARC 14-120(CA238) 747/1 AT1 03S1 (CARRIER DATA)

(RNH039) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 387/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.879	.070	.58666	6.21163	-.10694	.06776	.04412	.04576	-.18509	.01134	-.00263	-.00208
44.946	2.481	.58661	8.42103	-.06122	.08432	.24297	.05281	-.23763	.01325	-.00254	.00009
44.926	4.448	.58586	10.41200	-.21870	.40815	.40815	.05319	-.26773	.01521	-.00250	.00064
	GRADIENT	-.00018	.95780	-.02388	-.01029	.08313	.00394	-.01898	.00088	.00003	.00016

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 388/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
49.971	-.037	.58490	6.07965	.11060	.11843	.03769	.04571	-.18564	.01184	-.00283	-.00033
50.192	2.513	.58441	8.42727	-.18012	.08470	.25489	.05310	-.24272	.01342	-.00268	.00026
50.609	4.284	.58442	10.28530	-.17500	.09634	.39538	.06224	-.26915	.01443	-.00238	.00108
	GRADIENT	-.00012	.96964	-.06945	-.00568	.08295	.00376	-.01954	.00060	.00010	.00032

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 391/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.148	2.388	.59047	8.22485	-.06687	.05722	.14696	.04944	-.13476	.04310	-.01996	.00312
3.390	4.263	.59098	10.21090	-.04503	-.00654	.29461	.05658	-.16270	.04483	-.01985	.00376
	GRADIENT	.00027	1.05936	.01165	-.03401	.07876	.00381	-.01490	.00092	.00006	.00034

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 389/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
61.515	-.115	.58473	5.98804	.12903	.11916	.02079	.04502	-.18642	.01116	-.00272	-.00018
60.520	2.529	.58435	8.29901	-.09098	.07553	.25891	.05325	-.24850	.01289	-.00255	.00039
	GRADIENT	-.00014	.87406	-.08321	-.01650	.09006	.00311	-.02348	.00065	.00006	.00022

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

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REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 LOFB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 392/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.312	2.139	8.21903	-14187	.10762	.14441	.04967	-14706	.04502	-.02145	.07392
7.376	4.461	10.38090	-04368	.05150	.33663	.05962	-19071	.04962	-.02199	.00343
	GRADIENT	.93122	.04230	-.02417	.08280	.00429	-.01880	.00198	-.00023	-.00021

RUN NO. 393/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.885	2.001	8.09911	-16160	.06343	.14237	.04987	-15562	.04518	-.02206	.00398
10.083	4.424	10.36610	-07507	.05245	.32594	.05998	-19937	.04918	-.02233	.00403
	GRADIENT	.93579	.03572	-.00453	.07578	.00417	-.01806	.00165	-.00011	.00002

RUN NO. 394/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.083	2.141	8.24803	-19875	.05544	.16878	.05114	-17898	.04656	-.02309	.00454
14.830	4.433	10.35730	-08338	.06210	.34691	.05131	-21768	.04945	-.02289	.00441
	GRADIENT	.92040	.05034	.00290	.07773	.00443	-.01689	.00126	.00009	-.00006

RUN NO. 395/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.781	2.045	8.11938	-12810	.09299	.18491	.05181	-21114	.04795	-.02428	.01475
29.790	4.494	10.41400	-07450	.08848	.33098	.06369	-25297	.05174	-.02423	.00546
	GRADIENT	.93683	.02188	-.00184	.08413	.00485	-.01708	.00155	.00002	.00029

RUN NO. 396/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.565	2.160	8.20736	-08759	.08082	.21588	.05262	-23039	.04853	-.02442	.00481
44.873	4.357	10.31290	-11783	.05913	.39439	.06379	-26464	.05081	-.02404	.00453
	GRADIENT	.95382	-.01370	-.00983	.08086	.00506	-.01551	.00103	.00018	-.00013

RUN NO. 397/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.286	2.123	8.20360	-01339	.05846	.21430	.05251	-23248	.04771	-.02425	.00476
50.569	4.396	10.36870	-06019	.05556	.40082	.06399	-26871	.05090	-.02391	.00479
	GRADIENT	.95258	-.02059	-.00128	.08206	.00505	-.01594	.00140	.00015	.00001



ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(RNH040) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 401/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.048	ALPHAC	-.004	ALPHA0	3.94885	DX	-.03013	CL	-.02134	CD	.04628	CLM	-.14542	CY	.01499	CYN	-.00366	CBL	-.00011
	3.021		2.318		.58575		-.00823		.03102		.05195		-.19553		.01655		-.00366		.00003
	3.274		4.401		5.8650		-.08030		.34618		.06099		-.23150		.01848		-.00343		.00037
		GRADIENT			.00005		-.01099		.08350		.00332		-.01958		.00079		.00005		.00011

RUN NO. 402/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.066	ALPHAC	-.091	ALPHA0	4.06526	DX	-.06533	CL	-.01306	CD	.04656	CLM	-.15131	CY	.01448	CYN	-.00381	CBL	-.00048
	7.198		2.490		.58717		-.05879		.20176		.05282		-.20919		.01583		-.00362		.00035
	7.335		4.405		.58721		-.06649		.35582		.06163		-.24128		.01853		-.00344		.00045
		GRADIENT			.00033		-.00010		.08210		.00330		-.02015		.00088		.00008		.00022

RUN NO. 403/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.793	ALPHAC	.024	ALPHA0	4.20285	DX	-.10758	CL	.00433	CD	.04655	CLM	-.16204	CY	.01509	CYN	-.00396	CBL	.00004
	9.766		2.449		.58614		-.05513		.20296		.05267		-.21512		.01619		-.00367		.00064
	9.745		4.293		.58746		-.10482		.35455		.06151		-.24667		.01816		-.00340		.00029
		GRADIENT			.00031		.00172		.08203		.00345		-.01993		.00071		.00013		.00007

RUN NO. 404/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.781	ALPHAC	-.155	ALPHA0	4.02957	DX	-.08900	CL	-.01356	CD	.04590	CLM	-.16643	CY	.01347	CYN	-.00377	CBL	-.00012
	14.685		2.568		.58672		-.05953		.23243		.05365		-.23102		.01639		-.00354		.00038
	14.592		4.303		.58737		-.04039		.36399		.06217		-.25576		.01739		-.00317		.00055
		GRADIENT			.00027		.01090		.08562		.00358		-.02036		.00090		.00013		.00015

RUN NO. 405/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.804	ALPHAC	-.120	ALPHA0	4.05111	DX	-.13448	CL	.00956	CD	.04573	CLM	-.18861	CY	.01313	CYN	-.00323	CBL	-.00003
	29.944		2.563		.58585		-.04528		.04981		.05387		-.24916		.01475		-.00291		.00078
	29.835		4.329		.58681		-.13744		.38982		.06313		-.27379		.01509		-.00230		.00072
		GRADIENT			.00026		.00487		.08577		.00384		-.01943		.00045		.00020		.00018

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH040) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 406/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.515	-.091	.58600	4.04059	.03455	.03143	.02220	.04549	-.19570	.01272	-.00298	.00000
44.728	2.446	.58754	6.34838	-.15179	.02644	.24572	.05330	-.25380	.01466	-.00278	.00022
44.671	4.476	.58637	8.39585	-.16754	-.03328	.42194	.06456	-.28489	.01640	-.00233	.00074
	GRADIENT	.00010	.95184	-.04547	-.01367	.08755	.00413	-.01967	.00080	.00014	.00016

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH041) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .500

PARAMETRIC DATA

RUN NO. 411/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.328	2.137	.48953	6.15134	-.08804	-.17940	.15475	.05006	-.18073	.01773	-.00338	.00015
3.325	4.298	.48981	8.23496	-.05681	-.16385	.33576	.05946	-.22458	.01943	-.00329	.00034
	GRADIENT	.00013	.96420	.01445	.00720	.08376	.00435	-.02029	.00079	.00004	.00009

RUN NO. 412/ 0 RN/L = 2.96 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
6.838	2.085	.48840	6.09329	-.09292	-.16145	.17291	.05103	-.19427	.01731	-.00354	-.00006
7.184	4.439	.48857	8.36195	-.05746	-.16305	.35624	.06112	-.23734	.01963	-.00323	.00057
	GRADIENT	.00007	.96379	.01507	-.00068	.07788	.00429	-.01830	.00098	.00013	.00027

RUN NO. 413/ 0 RN/L = 2.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.770	2.218	.48931	6.27786	-.14676	-.13853	.18618	.05107	-.20125	.01641	-.00333	.00079
9.780	4.469	.48962	8.40798	-.05126	-.15367	.35973	.06138	-.24274	.01894	-.00313	.00099
	GRADIENT	.00013	.94601	.04241	-.00672	.07708	.00458	-.01842	.00112	.00009	.00009

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(RNH041) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .500

PARAMETRIC DATA

RUN NO. 414/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.789	ALPHAC	1.986	MACH	.48945	ALPHA0	6.05709	DX	-.15807	DY	-.11379	CL	.18004	CD	.05106	CLM	-.21001	CY	.01680	CYN	-.00343	CBL	-.00001
	14.819	GRADIENT	4.441		.48934		8.37959		-.06484		-.09466		.37562		.06201		-.25452		.01900		-.00301		.00059
					-.00005		.94620		.03798		.00779		.07968		.00446		-.01813		.00090		.00017		.00024

RUN NO. 415/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.638	ALPHAC	2.215	MACH	.49043	ALPHA0	6.25657	DX	-.07823	DY	-.13076	CL	.21861	CD	.05205	CLM	-.23474	CY	.01657	CYN	-.00293	CBL	.00023
	29.826	GRADIENT	4.415		.49048		8.35752		-.04135		-.13496		.39591		.06230		-.27120		.01818		-.00263		.00086
					.00048		.95503		.01676		-.00191		.08060		.00466		-.01657		.00073		.00013		.00029

RUN NO. 416/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.438	ALPHAC	2.214	MACH	.49039	ALPHA0	6.22878	DX	-.07656	DY	-.11385	CL	.23604	CD	.05189	CLM	-.24356	CY	.01552	CYN	-.00268	CBL	.00075
	44.694	GRADIENT	4.330		.48927		8.27081		-.09178		-.16629		.40657		.06244		-.27825		.01860		-.00254		.00085
					-.00053		.96531		-.00719		-.02479		.08061		.00499		-.01640		.00145		.00006		.00005

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .300

PARAMETRIC DATA

RUN NO. 421/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.128	ALPHAC	2.209	MACH	.29686	ALPHA0	6.15824	DX	-.00134	DY	-.00631	CL	.18322	CD	.05349	CLM	-.18297	CY	.02257	CYN	-.00334	CBL	.00004
	3.123	GRADIENT	4.221		.29674		8.14827		.01001		-.02654		.34282		.06167		-.22535		.02455		-.00315		.00022
					-.00006		.98892		.00564		-.31006		.07931		.00407		-.02106		.00098		.00010		.00009

RUN NO. 422/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.085	ALPHAC	2.291	MACH	.29723	ALPHA0	6.28847	DX	-.07398	DY	-.04136	CL	.20872	CD	.05422	CLM	-.19701	CY	.02192	CYN	-.00310	CBL	.00085
	7.303	GRADIENT	4.347		.29653		8.32691		-.07285		-.01484		.36025		.06279		-.23811		.02581		-.00341		.00064
					-.00053		.98450		.00055		.01290		.07370		.00417		-.01989		.00189		-.00015		.00010

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(RNH042) (08 OCT 75)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .300

PARAMETRIC DATA

RUN NO. 423/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.285	2.180	6.13881	-.01604	-.02059	.19689	.05392	-.20155	.02342	-.00334	-.00013
9.970	4.347	8.34801	-.10366	-.04935	.36485	.06260	-.24371	.02370	-.00301	.00079
GRADIENT		1.01948	-.04044	-.01327	.07751	.00401	-.01946	.00013	.00015	.00042

RUN NO. 424/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.488	2.266	6.25676	-.06213	-.02430	.21160	.05447	-.21459	.02297	-.00318	.00033
14.575	4.354	8.31217	-.04284	-.03813	.38067	.06331	-.25493	.02526	-.00305	.00040
GRADIENT		.98457	.00924	-.00662	.08099	.00423	-.01932	.00110	.00006	.00003

RUN NO. 425/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.804	2.191	6.21467	-.11139	-.03212	.22265	.05431	-.23292	.02283	-.00292	.00032
29.724	4.292	8.26295	-.07168	-.04141	.39578	.06370	-.27246	.02451	-.00260	.00013
GRADIENT		.97492	.01890	-.00442	.08241	.00447	-.01882	.00080	.00015	-.00009

RUN NO. 426/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.766	2.202	6.22064	-.08944	-.11793	.23814	.05401	-.24326	.02235	-.00263	.00005
44.688	4.265	8.24369	-.05498	-.10352	.39319	.06189	-.27772	.02270	-.00227	.00053
GRADIENT		.98014	.01670	.00698	.07512	.00381	-.01670	.00017	.00018	.00023

REFERENCE DATA      PARAMETRIC DATA

SREF = 5500.0000 SQ.FT.      XMRP = 1339.9000 IN. XC      BETA = .000      STAB = -1.000  
 LREF = 327.7800 IN.      YMRP = .0000 IN. YC      RUDDER = .000      MACH = .600  
 BREF = 2348.0400 IN.      ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO.    41/ 0    RN/L = 3.40    GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	CA	CN	CSL	CLN
131.927	-5.187	-.02094	-.23157	.03198	-.49546	.00079	-.00276
131.734	-3.684	-.02217	-.34513	.03685	-.36559	.00032	-.00266
131.585	-2.684	-.02372	-.50648	.04010	-.27390	-.00030	-.00250
131.467	-1.696	-.02568	-.86784	.04220	-.18676	.00066	-.00244
131.339	-.712	-.02789	-2.24264	.04434	-.09544	.00027	-.00231
131.218	.186	-.03458	10.54370	.04521	-.01047	.00011	-.00263
131.073	1.294	-.02971	1.35772	.04357	.08564	.00105	-.00207
130.941	2.216	-.03296	.85236	.04041	.17481	.00078	-.00214
130.802	3.190	-.03487	.62664	.03566	.25647	.00096	-.00219
130.668	4.233	-.03700	.50119	.02749	.35529	.00120	-.00235
130.501	5.283	-.03802	.41287	.01811	.44793	.00122	-.00246
130.357	6.213	-.03622	.33469	.0909	.52841	.00171	-.00224
130.219	7.193	-.03533	.28218	.0080	.61595	.00192	-.00203
130.047	8.200	-.02880	.20195	-.00356	.70226	.00280	-.00145
	GRADIENT	-.00184	.22054	-.00094	.09104	.00014	.00005

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ARC 14-120(CA23B) 747/1 AT1

(ANH005) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 MACH = .600

RUN NO. 51/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	CA	CN	CSL	CLN
130.569	-5.190	-.02862	-.31637	.03327	-.41844	.00113	-.00340
130.436	-3.773	-.03281	-.49855	.03738	-.29603	.00051	-.00358
170.276	-2.866	-.03543	-.70951	.04005	-.21980	-.00022	-.00352
130.158	-1.854	-.04170	-1.28344	.04278	-.11979	-.00046	-.00357
130.031	-.858	-.03734	-2.49324	.04464	-.03131	.00023	-.00307
129.869	.149	-.03907	14.69840	.04525	.06285	.00069	-.00331
129.728	1.215	-.03656	1.72287	.04476	.15923	.00093	-.00302
129.596	2.190	-.03748	.98042	.04228	.25650	.00058	-.00288
129.434	3.207	-.03981	.71144	.03768	.34553	.00072	-.00294
129.329	4.111	-.03660	.51045	.03161	.42649	.00072	-.00267
129.085	5.180	-.03849	.42628	.02343	.51844	.00098	-.00276
128.927	6.172	-.03782	.35172	.01461	.60277	.00158	-.00264
128.889	7.226	-.03441	.27360	.00480	.70422	.00133	-.00216
128.737	8.205	-.03197	.22398	.00003	.78356	.00252	-.00184
GRADIENT		-.00032	.28308	-.00052	.09229	.00011	.00011

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH008) ( 08 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 81/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
4.365	.192	-.02401	7.13931	.91914	.04268	-.12635	.00042	-.00206
2.954	2.364	-.03533	.85653	.69755	.04257	.05653	.00104	-.00296
3.443	4.308	-.04096	.54517	.57102	.03357	.21568	.00102	-.00306
GRADIENT		-.00414	-1.62692	-.08491	-.00217	.08311	.00015	-.00024

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
6.994	-.126	-.02455	-10.98800	.41163	.04320	-.13669	.00046	-.00216
7.541	2.378	-.03096	.74617	.31383	.04288	.07717	.00065	-.00216
7.335	4.361	-.03794	.49892	.14322	.03388	.23517	.00021	-.00229
GRADIENT		-.00297	2.65110	-.05892	-.00199	.08297	-.00005	-.00003

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = 5.000  
 BRP = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 6.000 DX = .000  
 SCALE = .0125 DY = .000 MACH = .600

PARAMETRIC DATA

GRADIENT	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.751	-.141	-.02355	-.01931	-9.48584	.18416	.04405	-.12598	.00025	-.00207
9.637	2.414	-.03009	-.02549	.71430	.17685	.04313	-.08963	.00034	-.00209
9.522	4.401	-.03349	-.03304	.42541	.18465	.03372	.24400	.00078	-.00203
	GRADIENT	-.00221	-.00299	2.26917	-.00003	-.00218	.08160	.00011	.00001

GRADIENT	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.752	-.014	-.02608	-.02440	-62.46180	.22804	.04504	-.10357	.00005	-.00226
15.063	2.461	-.02807	-.04108	.65368	.28148	.04331	-.10662	.00029	-.00184
15.188	4.492	-.03685	-.03121	.47049	.17167	.03298	.26906	.00067	-.00227
	GRADIENT	-.00233	-.00170	14.38136	-.01129	-.00260	.08278	.00013	.00000

GRADIENT	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.536	-.028	-.02407	-.03133	-40.44000	.29506	.04517	-.08486	.00084	-.00223
29.860	2.464	-.03185	-.04291	.74080	.29463	.04256	-.13397	.00039	-.00223
29.902	4.306	-.03897	-.03159	.51892	.17718	.03337	.27668	.00077	-.00254
	GRADIENT	-.00342	-.00032	9.85305	-.02565	-.00263	.08366	-.00003	-.00007

GRADIENT	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.873	-.065	-.02757	-.02362	-23.10330	.22277	.04502	-.08212	.00067	-.00248
44.866	2.496	-.03315	-.02345	.76090	.16083	.04211	-.15286	.00065	-.00228
45.029	4.342	-.03517	-.01912	.46448	.10662	.03219	.30160	.00077	-.00227
	GRADIENT	-.00175	.00096	5.59553	-.02622	-.00280	.08736	.00002	.00005

GRADIENT	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.039	-.106	-.02787	-.01649	-14.70380	.15753	.04554	-.06969	.00031	-.00246
50.412	2.490	-.03319	-.02879	.76395	.19650	.04218	-.14912	.00095	-.00236
50.166	4.334	-.03850	-.02255	.50951	.12637	.03179	.30697	.00109	-.00250
	GRADIENT	-.00237	-.00159	3.59220	-.00558	-.00298	.08480	.00018	-.00000

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(ANH009) ( 08 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORR =  
 DY =

.000 STAB = -1.000  
 .000 ELEVON = 5.000  
 8.000 DX = .000  
 .000 MACH = .600

RUN NO. 91/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
8.075	.274	-.02879	-.03081	5.99245	.19735	.04142	-.13093	.00034	-.00257
7.276	2.380	-.03042	-.02885	.73241	.16156	.04131	.04750	.00071	-.00235
7.800	4.334	-.03350	-.02166	.44328	.10141	.03264	.20362	.00034	-.00220
	GRADIENT	-.00116	.00224	-1.38154	-.02354	-.00213	.08244	.00000	.00009

RUN NO. 92/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.930	-.015	-.02295	-.03073	-57.20780	.21687	.04219	-.14130	.00067	-.00224
10.158	2.498	-.03277	-.03839	.75188	.21172	.04123	.06169	.00092	-.00259
9.843	4.339	-.03474	-.02139	.45919	.10044	.03320	.21228	.00063	-.00232
	GRADIENT	-.00278	.00184	13.82212	-.02529	-.00197	.08118	-.00000	-.00002

RUN NO. 93/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.862	-.101	-.02177	-.03827	-12.10710	.27336	.04292	-.13342	.00050	-.00213
14.490	2.534	-.03046	-.02906	.68879	.16081	.04220	.08098	.00084	-.00239
15.108	4.322	-.03437	-.02133	.45608	.09991	.03398	.22484	.00065	-.00224
	GRADIENT	-.00288	.00380	2.99138	-.03947	-.00189	.08101	.00004	-.00003

RUN NO. 94/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.926	-.027	-.02424	-.02110	-42.27900	.14975	.04487	-.09068	.00054	-.00224
29.957	2.539	-.03487	-.03376	.78716	.18566	.04242	.11734	.00098	-.00267
29.720	4.365	-.04212	-.01885	.55338	.08835	.03336	.26552	.00100	-.00288
	GRADIENT	-.00408	.00016	10.21075	-.01216	-.00251	.08111	.00011	-.00015

RUN NO. 95/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.465	-.192	-.02338	-.01754	-6.94078	.12774	.04452	-.09992	.00056	-.00222
44.798	2.405	-.03033	-.03095	.72242	.17258	.04246	.12170	.00102	-.00226
44.826	4.485	-.07326	-.02844	.50205	.13191	.03148	.30068	.00075	-.00257
	GRADIENT	-.00337	-.00245	1.64707	.00156	-.00271	.04564	.00005	-.00007



TABULATED SOURCE DATA - CA23B

( ANH009 ) ( 08 OCT 75 )

ARC 14-12J(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.00054 5.0+293 -.01095 -.00299 .08503 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 96/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.555	-.03005	-.02435	-20.97440	.17333	.04539	-.07771	.00008	-.00261
50.407	-.03265	-.02537	.73404	.13939	.04194	.14746	.00038	-.00229
50.452	-.04020	-.02682	.52481	.12503	.03145	.30227	.00080	-.00264
GRADIENT	-.00218	-.00054	5.0+293	-.01095	-.00299	.08503	.00016	.00000

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.00037 -.00081 -3.79022 -.04435 -.00254 .07955 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 101/ 0 RN/L = 3.39 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
6.742	-.03786	-.08097	15.98680	.58112	.04260	-.04417	.00021	-.00328
7.349	-.04006	-.08924	.98677	.50184	.04108	.12376	.00015	-.00309
7.463	-.03935	-.08411	.52838	.39704	.03198	.28520	.00074	-.00276
GRADIENT	-.00037	-.00081	-3.79022	-.04435	-.00254	.07955	.00013	.00012

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.00151 -.00111 2.20373 -.01465 -.00220 .08277 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 103/ 0 RN/L = 2.37 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.009	-.03319	-.03516	-9.14115	.25394	.04258	-.07123	.00017	-.00284
10.088	-.04042	-.03365	.99200	.18864	.04149	.14056	.00055	-.00298
10.447	-.03977	-.04055	.52480	.18940	.03223	.30546	.00088	-.00260
GRADIENT	-.00151	-.00111	2.20373	-.01465	-.00220	.08277	.00016	.00005

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.00061 -.00193 2.59261 -.03034 -.00241 .08149 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 103/ 0 RN/L = 2.37 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
15.028	-.03442	-.03806	-10.91640	.27412	.04381	-.04610	.00007	-.00287
14.812	-.03607	-.03222	.87350	.18060	.04200	.16062	.00036	-.00272
15.043	-.03720	-.02935	.48698	.13707	.03249	.32557	.00022	-.00239
GRADIENT	-.00061	-.00193	2.59261	-.03034	-.00241	.08149	.00004	.00010

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH010) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 104/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.734	-1.108	-0.3396	-0.02025	-17.50900	.14541	.04479	-0.00575	.00034	-0.00283
30.254	2.360	-0.3978	-0.02508	.96584	.13985	.04253	.20253	.00020	-0.00309
29.860	4.407	-0.4015	-0.02305	.52247	.10761	.03232	.36782	.00047	-0.00293
GRADIENT	-0.0140	-0.0067	-0.0067	4.11272	-0.00816	-0.00270	.08281	.00003	-0.00002

RUN NO. 105/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.868	-1.111	-0.3296	-0.03145	-16.47020	.22554	.04522	.01639	.00025	-0.00283
45.183	2.422	-0.3866	-0.03268	.91470	.18116	.04226	.23034	.00040	-0.00298
45.129	4.429	-0.3932	-0.02344	.50917	.10897	.03216	.39509	.00023	-0.00277
GRADIENT	-0.0144	-0.0167	-0.0167	3.87374	-0.02532	-0.00280	.08345	-0.00000	.00001

RUN NO. 106/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.418	-0.076	-0.3425	-0.03157	-24.19930	.22512	.04534	.01979	.00043	-0.00298
50.480	2.472	-0.3651	-0.02435	.84657	.13458	.04209	.23916	.00045	-0.00288
50.477	4.415	-0.4021	-0.01688	.52230	.07855	.03166	.40428	.00066	-0.00292
GRADIENT	-0.0131	-0.00325	-0.00325	5.72305	-0.03278	-0.00296	.08563	.00005	.00001

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 111/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.151	-0.047	-0.02341	-0.11075	26.60780	1.58291	.04599	-0.09010	.00027	-0.00183
3.118	2.270	-0.3080	-0.10941	.77746	1.02370	.04380	.09687	.00057	-0.00195
3.528	4.264	-0.3447	-0.10860	.46360	.75986	.03336	.25917	.00070	-0.00185
GRADIENT	-0.00264	-0.00051	-0.00051	-6.30222	-0.19622	-0.00296	.08284	.00010	-0.00000

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH011) ( 08 OCT 75 )

DATE 22 MAR 76 TABULATED SOURCE DATA - CA23B (ANH011) ( 08 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 4.000 DX = .000  
DY = .000 MACH = .600

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RUN NO. 112/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.547	-.170	-.02451	-.11970	-8.21007	1.59918	.04548	-.09333	.00058	-.00196
7.199	2.385	-.03117	-.10988	.74906	1.00897	.04322	-.12282	.00044	-.00195
7.175	4.257	-.03785	-.11583	.50986	.81416	.03311	.27090	.00065	-.00211
	GRADIENT	-.00299	.00105	2.06044	-.20407	-.00268	.08242	.00001	-.00003

RUN NO. 113/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.781	-.120	-.02656	-.11596	-12.50350	1.64035	.04599	-.08222	.00019	-.00209
9.781	2.353	-.03276	-.11241	.79807	1.03445	.04316	-.12474	.00040	-.00214
9.491	4.419	-.03856	-.11246	.50052	.77832	.03217	.28840	.00020	-.00215
	GRADIENT	-.00264	.00079	2.94672	-.19172	-.00298	.08173	.00000	-.00001

RUN NO. 114/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.874	-.041	-.03158	-.11731	-37.75920	1.61977	.04646	-.07247	.00006	-.00255
14.967	2.414	-.03386	-.11444	.80362	1.03628	.04264	-.13493	.00113	-.00227
14.923	4.392	-.03861	-.11849	.50413	.81656	.03193	.29452	.00075	-.00224
	GRADIENT	-.00156	-.00021	8.91129	-.18339	-.00321	.08285	.00017	-.00007

RUN NO. 115/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.907	-.177	-.02656	-.11781	-8.53365	1.68663	.04567	-.06548	.00049	-.00224
29.803	2.432	-.03132	-.10938	.73812	.99348	.04199	-.15878	.00093	-.00203
29.693	4.435	-.04008	-.11499	.51832	.79100	.03011	.32634	.00057	-.00236
	GRADIENT	-.00288	.00074	2.04115	-.19773	-.00328	.08501	.00002	-.00002

RUN NO. 116/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.786	-.134	-.02629	-.10711	-11.09150	1.52576	.04565	-.04599	.00031	-.00219
45.057	2.347	-.03335	-.10582	.81448	.96551	.04120	-.16998	.00056	-.00213
44.452	4.450	-.03276	-.11672	.49958	.80359	.02879	.34501	.00090	-.00234
	GRADIENT	-.00272	-.00202	2.59569	-.15955	-.00362	.08534	.00013	-.00003

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH012) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 121/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.209	.038	-.02403	-.11185	32.59070	1.07055	.04372	-.11852	-.00009	-.00192
3.176	2.411	-.02869	-.11753	.68203	.81762	.04195	.07952	.00063	-.00202
3.398	4.319	-.03801	-.10642	.50466	.59669	.03289	.23793	.00015	-.00233
	GRADIENT	-.00321	.00112	-7.73165	-.11051	-.00246	.08102	.00006	-.00009

RUN NO. 122/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.586	-.026	-.02811	-.11292	-47.68780	1.05177	.04426	-.10316	.00005	-.00236
7.752	2.399	-.03271	-.11194	.78115	.77121	.04237	.09418	.00081	-.00237
7.261	4.448	-.03798	-.09920	.48954	.55069	.03210	.25339	.00052	-.00231
	GRADIENT	-.00220	.00299	11.04783	-.11211	-.00266	.07974	.00011	.00001

RUN NO. 123/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.180	-.156	-.02594	-.11073	-9.45049	1.04900	.04426	-.11163	.00023	-.00233
9.988	2.439	-.03357	-.11282	.78898	.77720	.04245	.10393	.00057	-.00236
10.110	4.458	-.03737	-.10592	.48077	.58516	.03164	.26778	.00063	-.00223
	GRADIENT	-.00250	.00096	2.23580	-.10073	-.00264	.08227	.00009	.00002

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 131/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.093	.127	-.01363	-.10041	6.10814	.95072	.04457	-.03381	.00004	-.00061
3.006	2.255	-.02297	-.10209	.58366	.72488	.04301	.14201	.00008	-.00100
3.460	4.338	-.02211	-.08994	.29224	.50356	.03361	.30658	.00046	-.00074
	GRADIENT	-.00202	.00247	-1.38557	-.10619	-.00260	.08085	.00010	-.00003

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH013) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 132/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.217	-.139	-.01465	-.10535	-6.02567	1.00523	.04470	-.04333	.00005	-.00076
7.234	2.360	-.01885	-.09890	.45777	.68965	.04337	.16157	.00053	-.00075
7.262	4.367	-.02036	-.09513	.26739	.53220	.03403	.32629	.00070	-.00065
GRADIENT	-.00129	.00228	.00228	1.44473	-.10584	-.00229	.08203	.00015	.00002

RUN NO. 133/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.116	-.237	-.01706	-.10377	-4.11140	.99648	.04470	-.04647	.00040	-.00104
9.960	2.407	-.01882	-.08719	.44820	.60332	.04335	.17707	.00028	-.00079
9.890	4.371	-.02200	-.08783	.28859	.49039	.03389	.33533	.00038	-.00077
GRADIENT	-.00105	.00362	.00362	.99792	-.11200	-.00224	.08294	-.00001	.00006

RUN NO. 134/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
15.175	-.191	-.02211	-.09798	-6.58827	.93377	.04547	-.02817	-.00035	-.00137
14.756	2.411	-.02076	-.09538	.49354	.66058	.04376	.18662	.00034	-.00101
15.038	4.441	-.02383	-.09119	.30774	.50485	.03346	.35562	.00036	-.00096
GRADIENT	-.00033	.00144	.00144	1.54547	-.09317	-.00251	.08284	.00016	.00009

RUN NO. 135/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
30.192	-.063	-.02859	-.09840	-24.55400	.92147	.04601	.01379	.00013	-.00219
29.830	2.435	-.03091	-.09207	.72761	.63439	.04341	.22014	.00022	-.00211
29.948	4.393	-.03562	-.09852	.46506	.54824	.03356	.37720	.00061	-.00230
GRADIENT	-.00152	.00009	.00009	5.81839	-.08517	-.00271	.08161	.00010	-.00002

RUN NO. 136/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.708	-.049	-.02818	-.08807	-30.15350	.83074	.04596	.02785	.00028	-.00232
44.452	2.450	-.03322	-.03149	.77706	.63200	.04292	.24163	-.00002	-.00234
44.667	4.474	-.03625	-.09813	.46476	.48762	.03324	.40465	.00072	-.00246
GRADIENT	-.00179	.00007	.00007	6.98692	-.07602	-.00296	.08341	.00009	-.00003

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 137/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.164	-.057	-.02860	-.09393	-26.61570	.88566	.04580	.02725	.00048	-.00234
50.275	2.433	-.03271	-.09205	.77048	.63379	.04268	.24490	.00069	-.00238
50.038	4.464	-.03731	-.08744	.47934	.48464	.03172	.41281	.00083	-.00252
	GRADIENT	-.00192	.00141	6.17858	-.08916	-.00305	.08536	.00008	-.00004

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH014) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 141/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.324	2.292	-.01280	-.06053	.31988	.42703	.04176	.15480	.00029	.00010
3.528	4.239	-.01529	-.05714	.20685	.32308	.03235	.32110	.00032	.00011
	GRADIENT	-.00128	.00174	-.05808	-.05341	-.00483	.08545	.00001	.00001

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 142/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.340	1.933	-.01416	-.06404	.41998	.45795	.04345	.14324	-.00022	-.00005
7.097	4.300	-.01526	-.06314	.20349	.35723	.03277	.33945	.00029	.00016
	GRADIENT	-.00046	.00038	-.03144	-.04254	-.00451	.08287	.00021	.00009

RUN NO. 143/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.137	1.946	-.00951	-.05199	.28014	.36992	.04395	.14968	-.00004	.00020
9.825	4.403	-.01435	-.05694	.18696	.31845	.03275	.35446	.00037	.00015
	GRADIENT	-.00197	-.00202	-.03792	-.02095	-.00456	.08334	.00016	-.00002

REFERENCE DATA  
 SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = .000 DX = 10.000  
 SCALE = .0125 GRADIENT = .00485 MACH = .000 MACH = .600

RUN NO. 144/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
DZ	14.831	1.968	-.06263	.46894	.44604	.04431	.16172	.00024	-.00045
	14.775	-.02033	-.05095	.26641	.28556	.03282	.37028	.00020	-.00048
GRADIENT		-.00175	.00485	-.03412	-.06635	-.00477	.08662	-.00002	-.00001

RUN NO. 145/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
DZ	30.007	1.997	-.02870	.82332	.45433	.04433	.19899	.00034	-.00201
	29.873	4.392	-.03153	.41164	.27580	.03255	.39840	.00060	-.00194
GRADIENT		-.00118	.00613	-.17189	-.07454	-.00492	.08326	.00011	.00003

RUN NO. 146/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
DZ	44.854	1.998	-.02928	.83988	.42896	.04415	.20952	.00079	-.00229
	44.891	4.430	-.03316	.42924	.29070	.03160	.42202	.00037	-.00216
GRADIENT		-.00159	.00332	-.16883	-.05684	-.00516	.08737	-.00017	.00005

RUN NO. 147/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
DZ	50.387	2.049	-.03183	.89046	.39158	.04411	.22438	.00040	-.00237
	50.182	4.431	-.03343	.43278	.29200	.03154	.42391	.00098	-.00266
GRADIENT		-.00067	.00128	-.19214	-.04195	-.00527	.08376	.00025	.00005

ORIGINAL PAGE IS  
 OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANHO15) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 151/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.261	2.410	-.01539	-.05552	.36584	.31121	.04093	.15563	.00023	-.00030
7.540	4.362	-.02184	-.05594	.28710	.26196	.03104	.31585	.00010	-.00062
	GRADIENT	-.00330	-.00021	-.04035	-.02523	-.00506	.08210	-.00007	-.00016

RUN NO. 152/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.896	2.043	-.01620	-.05238	.45446	.29782	.04238	.13504	.00040	-.00048
10.215	4.469	-.02110	-.05759	.27085	.26759	.03070	.34009	.00026	-.00066
	GRADIENT	-.00202	-.00215	-.07571	-.01246	-.00482	.08454	-.00006	-.00007

RUN NO. 153/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.806	2.079	-.02047	-.04574	.56414	.25921	.04316	.15591	-.00031	-.00082
14.750	4.497	-.02265	-.04780	.28886	.22228	.03110	.36145	.00011	-.00077
	GRADIENT	-.00090	-.00085	-.11388	-.01528	-.00499	.08502	.00018	.00002

RUN NO. 154/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
30.131	2.049	-.03036	-.05990	.84898	.33936	.04394	.18913	.00083	-.00234
30.087	4.493	-.03550	-.05189	.45306	.24052	.03152	.39280	.00085	-.00242
	GRADIENT	-.00210	-.00328	-.16197	-.04044	-.00508	.08332	.00001	-.00003

RUN NO. 155/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.833	2.044	-.03319	-.04639	.93043	.26416	.04392	.20859	.00047	-.00261
45.102	4.460	-.03648	-.04968	.46906	.23069	.03149	.40901	.00113	-.00261
	GRADIENT	-.00136	-.00136	-.19100	-.01386	-.00514	.08297	.00027	-.00000

RUN NO. 156/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.292	2.016	-.03450	-.04601	.98066	.26268	.04398	.20933	.00059	-.00282
50.425	4.375	-.03719	-.05004	.48742	.23415	.03199	.41126	.00061	-.00265
	GRADIENT	-.00114	-.00171	-.20906	-.01210	-.00508	.08558	.00001	.00007



REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BRF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = 6.000 DX = 20.000  
 SCALE = .0125 GRADIENT = -.00623 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 161/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CLN
2.997	2.461	-.01182	-.03333	.27527	.23155	.04018	.00027
3.241	4.340	-.01773	-.04504	.23+31	.25269	.03080	.00036
	GRADIENT	-.00315	-.00623	-.02180	.01125	-.00500	.00005

RUN NO. 162/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CLN
7.114	2.024	-.01557	-.03938	.44088	.27945	.04287	.00029
7.110	4.482	-.01969	-.03932	.25198	.21866	.03083	.00041
	GRADIENT	-.00168	.00002	-.07683	-.02473	-.00490	.00005

RUN NO. 163/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CLN
10.110	1.989	-.01433	-.04140	.41286	.29275	.04380	.00024
9.502	4.485	-.02025	-.03759	.25891	.20939	.03139	.00034
	GRADIENT	-.00237	.00153	-.08168	-.03340	-.00497	.00004

RUN NO. 164/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CLN
14.885	2.147	-.01853	-.03531	.49453	.24571	.04369	.00043
14.669	4.296	-.02454	-.04432	.32759	.25025	.03320	.00006
	GRADIENT	-.00280	-.00419	-.07770	.00211	-.00488	.00023

RUN NO. 165/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CLN
29.970	2.006	-.02941	-.03728	.83991	.26398	.04455	.00053
29.738	4.442	-.03310	-.02971	.42727	.16541	.03191	.00090
	GRADIENT	-.00151	.00311	-.16939	-.04046	-.00519	.00015

RUN NO. 166/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CLN
44.740	2.001	-.03180	-.04071	.91065	.28957	.04447	.00058
44.620	4.440	-.03674	-.03905	.47457	.21740	.03140	.00074
	GRADIENT	-.00202	.00068	-.17881	-.02959	-.00536	.00007

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH016) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 167/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
50.218	1.983	-.03094	-.03538	.89420	.25207	.04424	.21671	.00077	-.00250
50.509	4.478	-.03710	-.03895	.47518	.21516	.03108	.43514	.00097	-.00263
	GRADIENT	-.00247	-.00143	-.16791	-.01479	-.00528	.08753	.00008	-.00005

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH017) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 171/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
7.409	2.320	-.02250	-.05280	.55574	.29786	.03963	.16281	.00006	-.00113
7.682	4.409	-.02964	-.03816	.38562	.17796	.02832	.33966	.00028	-.00134
	GRADIENT	-.00342	.00701	-.08146	-.05741	-.00541	.08468	.00011	-.00010

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .500

RUN NO. 172/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
10.200	1.989	-.02424	-.04476	.65824	.25469	.04116	.14657	.00036	-.00138
9.876	4.367	-.02801	-.04339	.36783	.20389	.02951	.34303	-.00002	-.00131
	GRADIENT	-.00159	.00058	-.13896	-.02136	-.00490	.08262	-.00016	.00003

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .500

RUN NO. 173/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
14.980	2.042	-.02756	-.04430	.77345	.25118	.04199	.15871	-.00007	-.00167
14.840	4.390	-.02838	-.04124	.37080	.19334	.03027	.35705	.00038	-.00148
	GRADIENT	-.00035	.00130	-.17151	-.02464	-.00499	.08448	.00019	.00008

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .500

RUN NO. 174/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
30.168	1.994	-.03417	-.03893	.98158	.22154	.04298	.18417	.00089	-.00279
29.810	4.397	-.04190	-.05055	.54644	.23681	.03082	.39099	.00057	-.00297
	GRADIENT	-.00322	-.00484	-.18111	.00636	-.00506	.08608	-.00013	-.00008

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .500

REFERENCE DATA  
 SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 8.000 DX = 20.000  
 SCALE = .0125 GRADIENT = -.00208 BETA = .000 MACH = .600

RUN NO. 175/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CSL	CLN
DZ 44.854	2.109	-.03555	.95560	.21860	.04303	.00021	-.00280
45.244	4.417	-.04035	.52387	.20806	.41179	.00010	-.00283
GRADIENT	-.00208	-.00263	-.13141	-.00457	-.00526	-.00005	-.00001

RUN NO. 176/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CSL	CLN
DZ 50.344	2.116	-.03598	.97366	.20281	.04304	.00073	-.00295
50.595	4.352	-.03800	.50080	.19570	.03131	.00075	-.00276
GRADIENT	-.00090	-.00266	-.21167	-.00319	-.00525	.00001	.00009

REFERENCE DATA  
 SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00364 BETA = .000 MACH = .600

RUN NO. 181/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CSL	CLN
DZ 3.378	2.472	-.05330	1.23581	.32090	.04110	.00571	-.00767
3.590	4.405	-.04626	.63218	.19618	.32447	.00667	-.00741
GRADIENT	.00364	.00579	-.32765	-.06449	-.00479	.00050	.00014

RUN NO. 182/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CSL	CLN
DZ 7.711	2.009	-.04982	1.42106	.25146	.04261	.00501	-.00674
7.202	4.378	-.03609	.47278	.22910	.34335	.00584	-.00553
GRADIENT	.00579	-.00223	-.40024	-.00944	-.00454	.00035	.00051

RUN NO. 183/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CSL	CLN
DZ 9.911	2.005	-.04669	1.33418	.31295	.04294	.00473	-.00612
10.102	4.475	-.02745	.35177	.14366	.35870	.00471	-.00412
GRADIENT	.00779	.00735	-.39775	-.06854	-.00453	-.00001	.00081

PARAMETRIC DATA (ANH018) ( 08 OCT 75 )

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(ANH018) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.    XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN.        YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN.       ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000    STAB = 5.000  
 RUDDER = .000    ELEVON = 5.000  
 IORB = 6.000    DX = .000  
 DY = 10.000    MACH = .600

RUN NO. 184/ 0    RN/L = 3.33    GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.973	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	2.102		-.03302	-.03984	.90033	.27916	.04334	.17646	.00371	-.00431
	14.736		-.01495	-.03269	.19656	.18330	.03251	.36464	.00430	-.00229
		GRADIENT	.00799	.00316	-.31129	-.04240	-.00479	.08323	.00026	.00089

RUN NO. 185/ 0    RN/L = 3.33    GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.716	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	29.761		-.00154	-.04508	.04202	.31743	.04376	.19817	.00177	.00026
			.01266	-.04340	-.16756	.24384	.03310	.38729	.00200	.00193
		GRADIENT	.00636	.00075	-.09378	-.03293	-.00477	.08463	.00011	.00075

RUN NO. 186/ 0    RN/L = 3.32    GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.733	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	44.856		-.00480	-.04216	.13937	.30126	.04400	.20493	.00071	.00026
			.00046	-.03500	-.00608	.19684	.03242	.40470	.00130	.00103
		GRADIENT	.00225	.00307	-.06227	-.04470	-.00495	.08552	.00025	.00033

RUN NO. 187/ 0    RN/L = 3.32    GRADIENT INTERVAL = -5.00/ 5.00

DZ	49.952	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	50.410		-.01038	-.04737	.29428	.33755	.04353	.21287	.00123	-.00033
			-.00661	-.05131	.08622	.28566	.03182	.41729	.00103	.00039
		GRADIENT	.00159	-.00166	-.08761	-.02188	-.00493	.08608	-.00009	.00030

REFERENCE DATA  
 SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC IORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = 10.000 MACH = .600

PARAMETRIC DATA  
 RUN NO. 191/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.405 BETAO .03168 PHIC .90077 PHIO .17177 CA .04060 CN  
 7.491 .03781 .00777 .17177 .04060  
 7.844 4.380 -.01596 .20895 .11826 .30866  
 GRADIENT .01106 .00320 -.35027 -.02993 -.00480 .08124

RUN NO. 192/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.116 BETAO .02745 PHIC .91320 PHIO .15535 CA .04129 CN  
 9.818 2.116 -.03372 -.02745 .91320 .15535 .04129  
 9.759 4.310 -.01013 -.02251 .13473 .10619 .03143  
 GRADIENT .01076 .00226 -.35487 -.02241 -.00450 .08087

RUN NO. 193/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 1.964 BETAO .03502 PHIC .67824 PHIO .20068 CA .04205 CN  
 14.864 1.964 -.02325 -.03502 .67824 .20068 .04205  
 15.018 4.414 .00227 -.03061 -.02949 .14293 .03155  
 GRADIENT .01041 .00180 -.28887 -.02357 -.00429 .08166

RUN NO. 194/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.014 BETAO .02797 PHIC .33535 PHIO .15917 CA .04334 CN  
 30.225 2.014 .01179 -.02797 .33535 .15917 .04334  
 30.105 4.404 .03046 -.02455 -.39659 .11458 .03249  
 GRADIENT .00781 .00143 .00143 -.02563 -.01866 -.00454 .08398

RUN NO. 195/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.014 BETAO .00407 PHIC .11587 PHIO .20762 CA .04382 CN  
 44.421 2.014 .00407 .11587 .20762 .04382  
 45.079 4.380 .00568 -.03124 -.08750 .14588 .03204  
 GRADIENT .00110 .00208 .01199 -.02609 -.00498 .08183

RUN NO. 196/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.002 BETAO .04085 PHIC .03751 PHIO .23372 CA .04375 CN  
 50.290 2.002 -.00131 -.04085 .03751 .23372 .04375  
 50.279 4.323 -.00061 -.02055 .00815 .09665 .03262  
 GRADIENT .00030 .00874 -.01264 -.05904 -.00480 .08203

ORIGINAL PAGE IS  
 OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH020) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
2.999	.056	-.02828	-.08876	26.67240	1.27147	.04771	.01054	.00005	-.00198
2.972	2.231	-.03056	-.06736	.78482	.63585	.04565	.19056	.00026	-.00198
3.376	4.258	-.03382	-.09060	.45546	.63611	.03615	.35360	.00022	-.00183
	GRADIENT	-.00132	-.00031	-6.30867	-.15293	-.00273	.08166	.00004	.00004

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.356	-.232	-.02757	-.06478	-6.78415	.93772	.04699	-.00684	.00011	-.00202
7.305	2.422	-.03173	-.07644	.75071	.69653	.04512	.21191	.00010	-.00201
7.176	4.286	-.03467	-.07960	.46391	.58330	.03566	.37068	.00012	-.00191
	GRADIENT	-.00157	-.00336	1.68783	-.08444	-.00238	.08348	-.00005	.00002

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.998	-.190	-.03105	-.07750	-9.30004	1.10478	.04716	-.00049	-.00019	-.00224
9.822	2.393	-.03424	-.08742	.81997	.79993	.04522	.21996	.00015	-.00210
9.715	4.416	-.03357	-.07630	.43602	.52700	.03489	.38269	.00064	-.00187
	GRADIENT	-.00058	.00008	2.19562	-.12512	-.00258	.08330	.00017	.00008

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.608	-.076	-.02818	-.07640	-20.23390	1.07213	.04742	.02478	-.00019	-.00204
14.941	2.433	-.03134	-.07495	.73837	.67795	.04494	.23209	.00014	-.00199
14.567	4.425	-.03172	-.07672	.41119	.52558	.03470	.39533	.00056	-.00178
	GRADIENT	-.00081	-.00004	4.74688	-.12209	-.00275	.08234	.00016	.00006

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.742	-.160	-.03287	-.07696	-11.64240	1.10106	.04681	.02904	-.00015	-.00260
29.812	2.421	-.03327	-.07190	.65328	.65328	.04385	.25141	.00036	-.00240
29.770	4.475	-.03485	-.07954	.44661	.54419	.03299	.42062	.00013	-.00221
	GRADIENT	-.00041	-.00045	2.70131	-.12240	-.00290	.08456	.00007	.00008

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (ANH020) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = .000 DX = .000  
 SCALE = .0125 DY = .000 MACH = .500

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.518	-.106	-.03181	-.07540	-16.70720	1.07283	.04623	.04200	.00043	-.00266
44.662	2.474	-.03453	-.07541	.80009	.67953	.04299	.26452	.00028	-.00252
44.473	4.486	-.03660	-.06670	.46794	.45726	.03141	.43801	.00051	-.00246
	GRADIENT	-.00104	.00181	3.38044	-.13490	-.00314	.08624	.00001	-.00004

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (ANH021) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = .000 DX = .000  
 SCALE = .0125 DY = .000 MACH = .600

RUN NO. 211/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.110	.173	-.02110	-.09381	6.95086	1.29997	.04701	-.06320	.00044	-.00135
3.078	2.255	-.03101	-.09682	.78797	.90716	.04460	.10716	.00053	-.00160
3.099	4.353	-.03504	-.10020	.46166	.69789	.03351	.27502	.00042	-.00159
	GRADIENT	-.00333	-.00153	-1.55055	-.14397	-.00323	.08091	-.00000	-.00006

PARAMETRIC DATA

RUN NO. 212/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.673	-.126	-.02421	-.09799	-10.34500	1.37286	.04639	-.08131	.00005	-.00161
7.105	2.399	-.03108	-.10688	.74259	.98064	.04330	.13296	.00071	-.00159
7.181	4.355	-.03397	-.10016	.44740	.69583	.03268	.28949	.00037	-.00154
	GRADIENT	-.00220	-.00063	2.61793	-.15128	-.00297	.08284	.00008	-.00001

RUN NO. 213/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.888	-.253	-.02234	-.10311	-5.03962	1.50123	.04616	-.08648	.00025	-.00150
10.133	2.398	-.03044	-.09252	.72762	.84124	.04288	.13668	.00108	-.00154
9.989	4.413	-.03202	-.09419	.41610	.64781	.03190	.29932	.00047	-.00138
	GRADIENT	-.00212	-.00202	1.22074	-.18627	-.00296	.08275	.00006	-.00002

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(ANH021) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 214/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.808	-.052	-.02282	-.09691	-23.82030	1.34952	.04654	-.05339	-.00019	-.00146
14.795	2.452	-.02740	-.09118	.64047	.82381	.04253	.14828	.00067	-.00132
14.946	4.403	-.03224	-.10412	4.1987	.71611	.03152	.30572	.00107	-.00138
	GRADIENT	-.00210	-.00144	5.6+106	-.14531	-.00329	.08060	.00029	.00002

RUN NO. 215/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.743	-.137	-.02376	-.09264	-9.85063	1.32218	.04549	-.05172	.00051	-.00170
29.755	2.487	-.03203	-.08775	.73818	.79014	.04115	.16849	.00074	-.00174
29.747	4.402	-.03376	-.08901	4.3980	.61393	.02973	.32686	.00129	-.00169
	GRADIENT	-.00226	-.00086	2.37265	-.15883	-.00336	.08344	.00017	-.00000

RUN NO. 216/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.609	-.114	-.01992	-.08265	-9.94199	1.17747	.04503	-.03651	.00080	-.00139
44.499	2.547	-.03157	-.08404	.71032	.75098	.03988	.18797	.00062	-.00167
44.744	4.315	-.03304	-.09687	4.3911	.67385	.02940	.33220	.00115	-.00167
	GRADIENT	-.00308	-.00299	2.47615	-.11742	-.00340	.08381	.00007	-.00007

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 221/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.175	.180	-.01798	-.09385	5.69209	.66443	.04469	-.02831	.00009	-.00090
7.048	2.374	-.01994	-.08436	.48131	.47319	.04286	.14762	.00042	-.00082
7.827	4.374	-.02165	-.08149	.28389	.38018	.03315	.31295	.00045	-.00080
	GRADIENT	-.00088	.00297	-1.30708	-.06800	-.00272	.08135	.00009	.00003

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(ANH022) ( 08 OCT 75 )



TABULATED SOURCE DATA - CA23B

DATE 22 MAR 76

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

REFERENCE DATA  
 RUN NO. 222/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC BETAC BETAO PHIC PHIO CA CN  
 10.008 -.095 -.01987 -11.78550 .62331 .04771 -.03671  
 9.794 2.462 -.02395 .55746 .50567 .04300 .16624  
 10.168 4.329 -.02393 .31698 .40184 .03374 .31842  
 GRADIENT -.00096 .00028 2.85990 -.04981 -.00237 .08021

RUN NO. 223/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC BETAC BETAO PHIC PHIO CA CN  
 14.875 -.131 -.01561 -6.77832 .56064 .04520 -.02763  
 15.107 2.479 -.02126 .49153 .47415 .04308 .18753  
 14.650 4.467 -.02519 .32336 .40184 .03340 .34573  
 GRADIENT -.00209 -.00184 1.60755 -.03446 -.00248 .08126

RUN NO. 224/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC BETAC BETAO PHIC PHIO CA CN  
 29.663 -.130 -.02533 -10.98930 .66773 .04584 .00278  
 30.014 2.540 -.02959 .66761 .49726 .04292 .22761  
 30.212 4.360 -.03194 .42012 .39081 .03339 .37836  
 GRADIENT -.00148 .00192 2.67627 -.06183 -.00265 .08368

RUN NO. 225/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC BETAC BETAO PHIC PHIO CA CN  
 44.608 -.097 -.02843 -16.30560 .60103 .04576 .02316  
 44.758 2.520 -.03315 .75396 .43776 .04225 .24841  
 44.921 4.300 -.03688 .49188 .40592 .03260 .39871  
 GRADIENT -.00191 .00045 4.02113 -.04571 -.00287 .08545

RUN NO. 226/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC BETAC BETAO PHIC PHIO CA CN  
 50.329 -.122 -.02932 -13.55440 .62610 .04579 .02394  
 50.199 2.456 -.03269 .76282 .42225 .04259 .24133  
 50.308 4.443 -.03733 .48180 .43064 .03183 .41313  
 GRADIENT -.00173 .00090 3.19488 -.04458 -.00297 .08521

PARAMETRIC DATA  
 BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

CSL CLN  
 .00049 .00125  
 .00027 .00124  
 .00047 .00092  
 -.00001 .00007  
 .00015 .00015  
 .00036 .00092  
 .00033 .00094  
 .00011 .00003  
 .00014 .00014  
 .00012 .00178  
 .00033 .00176  
 .00010 .00001  
 .00045 .00045  
 .00092 .00024  
 .00072 .00239  
 .00007 .00004  
 .00022 .00022  
 .00074 .00238  
 .00012 .00001

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ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(ANH023) ( 38 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 231/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.160	.028	-.01846	-.08306	33.32190	.79878	.04614	-.02519	-.00018	-.00080
3.398	2.478	-.02078	-.07840	.48052	.53695	.17461	.00026	-.00085	-.00085
3.235	4.342	-.02437	-.07307	.32189	.40989	.03526	.32806	.00033	-.00095
	GRADIENT	-.00135	.00230	-7.94312	-.09099	-.00243	.08186	.00012	-.00004

RUN NO. 232/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.044	-.157	-.01844	-.08117	-6.67827	.77814	.04612	-.03043	-.00012	-.00098
7.210	2.438	-.02027	-.08467	.47652	.58519	.04445	.18462	.00038	-.00088
7.208	4.444	-.02161	-.07606	.27892	.42297	.03481	.34842	.00041	-.00076
	GRADIENT	-.00069	.00099	1.57164	-.07705	-.00237	.08236	.00012	.00005

RUN NO. 233/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.588	-.079	-.01877	-.07496	-13.36650	.70875	.04638	-.01474	-.00004	-.00105
9.981	2.449	-.02096	-.07655	.49045	.52627	.04457	.19357	.00005	-.00089
9.714	4.418	-.02148	-.07156	.27883	.39877	.03457	.35968	.00043	-.00072
	GRADIENT	-.00061	.00069	3.14770	-.06908	-.00254	.08322	.00008	.00007

RUN NO. 234/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.480	-.060	-.01899	-.07835	-17.51720	.74045	.04658	-.00023	.00031	-.00110
14.703	2.510	-.01969	-.07020	.44958	.48046	.04417	.21848	.00021	-.00080
14.839	4.425	-.02234	-.07276	.28959	.40432	.03468	.36926	.00058	-.00080
	GRADIENT	-.00072	.00135	4.14699	-.07640	-.00256	.08254	.00005	.00007

RUN NO. 235/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.767	-.083	-.02720	-.07915	-18.05020	.74815	.04632	.02080	.00059	-.00212
29.743	2.454	-.02849	-.08272	.66551	.56922	.04381	.22859	.00051	-.00188
29.929	4.441	-.03141	-.07384	.40567	.40926	.03329	.40095	.00052	-.00183
	GRADIENT	-.00091	.00106	4.22849	-.07471	-.00280	.08393	-.00002	.00006

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 236/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.538	-.030	-.03016	-.07105	-45.63040	.66987	.04641	.03716	-.00018	-.00233
44.541	2.408	-.03288	-.07398	.78245	.51262	.04317	.24692	.00078	-.00244
44.965	4.398	-.03562	-.07262	.46454	.40355	.03229	.41752	.00065	-.00232
GRADIENT		-.00123	-.00039	10.73182	-.06032	-.00312	.08592	.00020	.00000

RUN NO. 237/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
49.951	-.140	-.03117	-.06300	-12.52690	.60450	.04605	.02711	.00043	-.00252
49.970	2.539	-.03313	-.06581	.74761	.44958	.04271	.25770	.00073	-.00243
50.050	4.426	-.03462	-.06447	.44853	.35867	.03218	.41978	.00046	-.00220
GRADIENT		-.00075	-.00037	2.98358	-.05410	-.00292	.08599	.00001	.00007

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 241/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
2.790	.104	-.01687	-.10599	9.17543	1.02723	.04491	-.10169	.00033	-.00108
3.147	2.378	-.02780	-.10795	.67006	.75025	.04284	.09267	.00012	-.00149
3.235	4.382	-.03032	-.10588	.39684	.59164	.03220	.25231	.00065	-.00134
GRADIENT		-.00318	.00001	-2.08954	-.10226	-.00292	.08281	.00007	-.00006

RUN NO. 242/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.214	-.107	-.01946	-.09671	-10.32810	.91690	.04487	-.10092	.00003	-.00131
7.169	2.445	-.02538	-.10545	.59509	.72832	.04258	.10804	.00061	-.00136
7.223	4.433	-.03068	-.10967	.39700	.61002	.03183	.26907	.00072	-.00133
GRADIENT		-.00247	-.00288	2.45152	-.06790	-.00278	.08153	.00016	-.00000

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH024) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XHRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 243/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.900	-.036	-.01552	-.10373	-23.52540	.96998	.04505	-.08437	.00047	-.00100
9.833	2.466	-.02473	-.10781	.57491	.74093	.04228	.11889	.00077	-.00122
9.797	4.354	-.02779	-.09868	.36604	.55238	.03231	.26747	.00089	-.00118
GRADIENT	-.00284	-.00100	.00100	5.36359	-.09495	-.00281	.08021	.00010	-.00004

RUN NO. 244/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.827	-.163	-.01662	-.10882	-5.82977	1.03936	.04495	-.08905	.00044	-.00116
14.725	2.499	-.02233	-.10653	.51199	.73058	.04185	.13393	.00078	-.00100
14.404	4.287	-.02833	-.11433	.37901	.64617	.03231	.27709	.00060	-.00115
GRADIENT	-.00259	-.00108	.00108	1.47172	-.09050	-.00271	.08240	.00004	-.00001

RUN NO. 245/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.598	-.049	-.02060	-.10391	-22.87620	.98226	.04535	-.05362	.00005	-.00147
29.897	2.432	-.02789	-.10629	.65724	.73161	.04136	.15020	.00079	-.00156
29.731	4.487	-.03348	-.10341	.42793	.57164	.02951	.31842	.00079	-.00176
GRADIENT	-.00284	-.00007	.00007	5.28621	-.09089	-.00343	.08203	.00017	-.00006

RUN NO. 246/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.528	-.131	-.02125	-.09970	-9.19757	.95638	.04479	-.05183	.00041	-.00161
44.796	2.390	-.03248	-.09689	.77909	.67049	.04071	.16442	.00046	-.00191
44.981	4.445	-.03629	-.08862	.46835	.48992	.02844	.33187	.00095	-.00205
GRADIENT	-.00333	-.00237	.00237	2.18118	-.10237	-.00350	.08393	.00011	-.00010

RUN NO. 247/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
49.995	-.101	-.02348	-.10355	-13.06200	.98795	.04493	-.04513	.00010	-.00175
50.084	2.534	-.03304	-.10365	.74722	.70703	.03995	.17985	.00038	-.00195
50.059	4.394	-.03447	-.09375	.44997	.52290	.02846	.33403	.00083	-.00190
GRADIENT	-.00253	-.00203	.00203	3.15515	-.10367	-.00354	.08442	.00016	-.00004

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (ANH025) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.209	.039	-.02082	-.12031	28.15880	.86433	.04252	-.12183	.00064	-.00168
7.216	2.367	-.02238	-.10603	.54184	.59534	.04128	.07255	.00121	-.00138
7.328	4.353	-.03042	-.10502	.40075	.49282	.03194	.22386	.00080	-.00165
	GRADIENT	.00218	.00362	-6.58775	-.08593	-.00240	.08022	.00004	.00001

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.339	-.027	-.01829	-.11596	-34.19580	.82723	.04319	-.11127	.00041	-.00148
10.040	2.372	-.02145	-.10961	.51828	.61215	.04155	.07336	.00097	-.00133
10.061	4.478	-.03288	-.10799	.42113	.50087	.03084	.24859	.00063	-.00175
	GRADIENT	-.00320	.00179	7.83983	-.07284	-.00269	.07981	.00005	-.00006

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.643	-.013	-.01852	-.11070	-54.03890	.78492	.04401	-.09726	.00033	-.00140
15.082	2.543	-.02390	-.10727	.53864	.58935	.04126	.11095	.00050	-.00133
14.801	4.374	-.02446	-.09836	.32075	.46054	.03139	.25463	.00152	-.00105
	GRADIENT	-.00140	.00272	12.96060	-.07410	-.00276	.08029	.00026	-.00008

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.827	-.162	-.01960	-.11035	-6.88413	.79524	.04425	-.08445	.00024	-.00145
30.228	2.450	-.02650	-.10450	.61987	.57313	.04116	.12757	.00104	-.00151
30.232	4.437	-.03055	-.09616	.39488	.44532	.02997	.29272	.00121	-.00153
	GRADIENT	-.00239	.00304	1.64858	-.07646	-.00301	.08196	.00022	-.00002

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.600	-.132	-.02289	-.10223	-9.85191	.73778	.04424	-.06778	.00033	-.00178
45.018	2.364	-.03204	-.10427	.77675	.58252	.04077	.14596	.00072	-.00198
44.806	4.412	-.03429	-.10011	.44576	.46660	.02913	.31023	.00118	-.00196
	GRADIENT	-.00255	.00042	2.33763	-.05977	-.00326	.09328	.00019	-.00004

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH025) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
49.823	-.233	-.01744	-.09676	-4.27924	.70952	.04396	-.07219	.00061	-.00143
50.763	2.449	-.02803	-.10520	.65573	.58103	.03994	.16079	.00125	-.00172
50.761	4.339	-.03644	-.11097	.48166	.51783	.02927	.31228	.00101	-.00210
	GRADIENT	-.00414	-.00311	1.09482	-.04232	-.00310	.08427	.00010	-.00014

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(ANH027) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 261 / 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.310	.046	-.01681	-.11653	20.05070	.83516	.04412	-.03535	.00040	-.00105
7.309	2.283	-.02325	-.12102	.58363	.68499	.04294	.15409	-.00006	-.00116
7.865	4.288	-.02083	-.10914	.27863	.51237	.03323	.31339	.00092	-.00091
	GRADIENT	-.00098	.00167	-4.73831	-.07592	-.00253	.08223	.00012	.00003

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 262 / 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.835	-.171	-.02014	-.12235	-6.70156	.86163	.04434	-.04423	-.00008	-.00126
9.501	2.437	-.01962	-.11126	.46137	.61936	.04253	.16978	.00085	-.00103
9.652	4.384	-.02335	-.11356	.30547	.53245	.03321	.32481	.00071	-.00100
	GRADIENT	-.00065	.00206	1.60490	-.07798	-.00235	.08107	.00018	.00006

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 263 / 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.936	-.143	-.02337	-.11434	-9.28071	.81984	.04492	-.02638	-.00019	-.00156
14.990	2.462	-.02474	-.11107	.57592	.61564	.04301	.18941	.00035	-.00158
15.447	4.479	-.02882	-.11595	.36907	.53535	.03274	.35193	.00061	-.00151
	GRADIENT	-.00115	-.00027	2.16828	-.06235	-.00254	.08189	.00017	.00001

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

DATE 22 MAR 76

TABULATED SOURCE DATA - CA238

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ARC 14-120(CA238) 747/1 AT1 03S1 (CARRIER DATA)

(ANH027) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 264/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.711	-.161	-.02834	-.11546	-.99059	.83374	.04519	.00047	-.00000	-.00216
29.841	2.529	-.02940	-.11449	.66612	.63153	.04254	.22209	.00076	-.00205
30.092	4.385	-.03050	-.11120	.39889	.51881	.03309	.37842	.00056	-.00175
	GRADIENT	-.00047	.00090	2.40570	-.06971	-.00254	.08309	.00014	-.00009

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 265/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.673	-.113	-.03278	-.10878	-.17440	.78267	.04551	.02791	-.00007	-.00267
44.791	2.534	-.03643	-.11525	.82395	.63500	.04180	.24735	.00072	-.00280
44.852	4.379	-.03440	-.10459	.45049	.48893	.03181	.40236	.00077	-.00234
	GRADIENT	-.00043	.00070	3.89001	-.06473	-.00293	.08333	.00019	-.00006

RUN NO. 266/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.205	-.137	-.03225	-.11579	-.1325530	.83308	.04470	.01267	.00013	-.00275
50.115	2.437	-.03746	-.11531	.88102	.64198	.04219	.23900	.00047	-.00288
50.310	4.427	-.03580	-.11520	.46373	.53666	.03136	.41490	.00051	-.00243
	GRADIENT	-.00084	.00013	3.12501	-.06539	-.00283	.08812	.00009	-.00007

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 281/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.140	2.460	-.02782	-.11208	.64808	.77724	.04294	.18547	.00020	-.00173
3.154	4.481	-.02861	-.12642	.36616	.70129	.03251	.35561	.00049	-.00155
	GRADIENT	-.00039	-.00709	-.13947	-.03757	-.00516	.08417	.00014	-.00009

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA238) 747/1 AT1 03S1 (CARRIER DATA)

(ANH028) ( 08 OCT 75 )

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

REFERENCE DATA  
 SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = .000 DX = 10.000  
 SCALE = .0125 DY = .000 MACH = .600

PARAMETRIC DATA  
 RUN NO. 282/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.022 ALPHA BETA BETAO PHIO PHIC PHIO CA CN CSL CLN  
 7.424 2.022 -0.2526 -0.11428 -0.11428 .71587 .80635 .04421 .16220  
 7.204 4.410 -0.02631 -0.11343 .34213 .63461 .03284 .36466  
 GRADIENT -0.00044 .00035 -.5652 -.07193 -.00476 .08478 .00001 .00011

RUN NO. 283/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.068 ALPHA BETA BETAO PHIO PHIC PHIO CA CN CSL CLN  
 9.851 2.068 -0.02201 -0.10749 .60933 .75603 .04419 .17496  
 9.970 4.488 -0.02315 -0.11604 .29588 .64226 .03251 .37454  
 GRADIENT -0.00047 -.00353 -.12981 -.04702 -.00482 .08250 .00013 .00010

RUN NO. 284/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.026 ALPHA BETA BETAO PHIO PHIC PHIO CA CN CSL CLN  
 14.871 2.026 -0.2188 -0.11676 .61866 .82708 .04444 .18364  
 14.337 4.481 -0.01949 -0.10932 .24945 .60938 .03262 .38383  
 GRADIENT .00097 .00303 -.15039 -.08868 -.00482 .08154 .00020 .00015

RUN NO. 285/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.180 ALPHA BETA BETAO PHIO PHIC PHIO CA CN CSL CLN  
 29.878 2.180 -0.03009 -0.11357 .79114 .78798 .04370 .21450  
 29.674 4.515 -0.03186 -0.11495 .40467 .63585 .03175 .41166  
 GRADIENT -0.00076 -.00059 -.16549 -.06514 -.00512 .08443 .00010 .00011

RUN NO. 286/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.093 ALPHA BETA BETAO PHIO PHIC PHIO CA CN CSL CLN  
 44.780 2.093 -0.03422 -0.10437 .93679 .73323 .04355 .21873  
 45.100 4.521 -0.03663 -0.11710 .46462 .64384 .03115 .42416  
 GRADIENT -0.00099 -.00524 -.19445 -.03681 -.00511 .08460 .00009 .00005

RUN NO. 287/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC 2.061 ALPHA BETA BETAO PHIO PHIC PHIO CA CN CSL CLN  
 50.200 2.061 -0.03561 -0.11216 .99020 .79184 .04352 .22318  
 50.258 4.539 -0.03511 -0.10756 .44362 .59229 .03004 .43767  
 GRADIENT .00020 .00186 -.22054 -.08052 -.00544 .08655 .00014 .00015



ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC IORB = 8.000 DX = 10.000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600 MACH =

PARAMETRIC DATA

RUN NO.	291 / 0	RN/L =	3.29	GRADIENT INTERVAL =	-5.00/	5.00	BETA =	.000	STAB =	5.000
DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN	
7.274	2.465	-.02502	-.11389	.58170	.53429	.04159	.17276	.00036	-.00144	
7.616	4.442	-.02878	-.11296	.37160	.52553	.03147	.33753	.00033	-.00140	
	GRADIENT	-.00190	.00047	-.10624	-.05500	-.00512	.08332	-.00002	.00002	

RUN NO.	292 / 0	RN/L =	3.28	GRADIENT INTERVAL =	-5.00/	5.00	BETA =	.000	STAB =	5.000
DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN	
10.037	2.057	-.02401	-.10716	.66883	.60698	.04294	.14820	.00063	-.00144	
10.105	4.486	-.02501	-.11457	.31970	.53198	.03142	.34984	.00074	-.00114	
	GRADIENT	-.00041	-.00305	-.14370	-.03087	-.00474	.08299	.00005	.00012	

RUN NO.	293 / 0	RN/L =	3.28	GRADIENT INTERVAL =	-5.00/	5.00	BETA =	.000	STAB =	5.000
DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN	
15.073	2.020	-.01983	-.11692	.56255	.66418	.04367	.15992	.00012	-.00095	
14.864	4.412	-.02121	-.11088	.27569	.51875	.03218	.35643	.00057	-.00078	
	GRADIENT	-.00058	.00252	-.11990	-.06079	-.00480	.08214	.00019	.00007	

RUN NO.	294 / 0	RN/L =	3.29	GRADIENT INTERVAL =	-5.00/	5.00	BETA =	.000	STAB =	5.000
DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN	
30.231	2.128	-.02803	-.11207	.75465	.62962	.04343	.20008	.00015	-.00177	
29.953	4.510	-.02957	-.11126	.37609	.51576	.03155	.39493	.00051	-.00163	
	GRADIENT	-.00065	.00034	-.15896	-.04781	-.00499	.08182	.00015	.00006	

RUN NO.	295 / 0	RN/L =	3.28	GRADIENT INTERVAL =	-5.00/	5.00	BETA =	.000	STAB =	5.000
DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN	
44.559	2.087	-.03479	-.11354	.95549	.64550	.04360	.21120	.00042	-.00263	
45.001	4.446	-.03809	-.12021	.49137	.55913	.03114	.41183	.00054	-.00255	
	GRADIENT	-.00140	-.00283	-.19673	-.03661	-.00528	.08505	.00005	.00003	

RUN NO.	296 / 0	RN/L =	3.28	GRADIENT INTERVAL =	-5.00/	5.00	BETA =	.000	STAB =	5.000
DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN	
50.108	2.027	-.03444	-.11315	.97390	.64654	.04337	.20876	.00086	-.00271	
50.709	4.547	-.03375	-.11536	.42574	.53117	.03020	.42154	.00134	-.00232	
	GRADIENT	.00028	-.00088	-.21753	-.04578	-.00523	.08444	.00019	.00016	

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(ANH030) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 301/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.146	2.474	-.02651	-.11428	.61408	.63524	.04081	.18259	.00091	-.00168
7.541	4.355	-.02875	-.11298	.37869	.52950	.03087	.34044	.00101	-.00159
	GRADIENT	-.00119	.00069	-.12521	-.05578	-.00529	.08396	.00006	.00005

RUN NO. 302/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.020	2.021	-.02499	-.11534	.70857	.65572	.04241	.15880	.00066	-.00153
10.077	4.495	-.02706	-.10935	.34524	.50770	.03022	.35988	.00074	-.00137
	GRADIENT	-.00084	.00242	-.14686	-.05983	-.00493	.08128	.00004	.00006

RUN NO. 303/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.887	2.172	-.02278	-.11218	.60106	.62932	.04240	.17900	.00043	-.00126
14.608	4.441	-.02442	-.10951	.31542	.51218	.03116	.36581	.00086	-.00111
	GRADIENT	-.00072	.00118	-.12592	-.05164	-.00496	.08235	.00019	.00007

RUN NO. 304/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
30.123	1.934	-.02643	-.11172	.78313	.63959	.04302	.18394	.00056	-.00185
29.781	4.549	-.02982	-.11666	.37597	.54039	.03018	.40628	.00132	-.00180
	GRADIENT	-.00130	-.00189	-.15569	-.03793	-.00491	.08502	.00029	.00002

RUN NO. 305/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.889	2.080	-.03388	-.11196	.93332	.63408	.04324	.21845	.00043	-.00261
44.724	4.413	-.03469	-.11582	.45093	.54147	.03135	.40179	.00092	-.00241
	GRADIENT	-.00035	-.00165	-.20679	-.03970	-.00509	.07860	.00021	.00008

RUN NO. 306/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.425	2.067	-.03405	-.10641	.94413	.60343	.04308	.21393	.00106	-.00275
50.408	4.416	-.03800	-.11483	.49362	.53565	.03080	.41687	.00071	-.00261
	GRADIENT	-.00168	-.00358	-.19182	-.02886	-.00523	.08641	-.00015	.00006

REFERENCE DATA  
 SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 6.000 DX = 20.000  
 SCALE = .0125 GRADIENT = -.00002 DY = .000 MACH = .600

PARAMETRIC DATA

CLN	CSL	CA	PHIO	PHIC	BETAO	BETAC	ALPHAC	ALPHAC	GRADIENT	PHIO	PHIC	BETAO	BETAC	ALPHAC	GRADIENT
.00158	.00073	.04241	.81921	.58862	-.11848	-.02506	2.440	7.139	-.00002	.81921	.58862	-.11848	-.02506	2.440	7.139
.00123	.00039	.03229	.67753	.32910	-.12080	-.02510	4.374	7.034	-.00002	.67753	.32910	-.12080	-.02510	4.374	7.034
.00018	-.00017	-.00523	-.07324	-.13415	-.00120	-.00002				-.07324	-.13415	-.00120	-.00002		

CLN	CSL	CA	PHIO	PHIC	BETAO	BETAC	ALPHAC	GRADIENT
.00148	.00048	.04362	.84432	.69479	-.11866	-.02412	1.989	9.707
.00106	.00081	.03110	.63820	.30304	-.11577	-.02404	4.549	9.890
.00016	.00013	-.00489	-.08051	-.15301	.00113	.00003		

CLN	CSL	CA	PHIO	PHIC	BETAO	BETAC	ALPHAC	GRADIENT
.00121	.00115	.04404	.84748	.62868	-.11919	-.02152	1.961	14.857
.00089	.00039	.03156	.62948	.29706	-.11366	-.02343	4.524	14.654
.00013	-.00030	-.00487	-.08506	-.12939	.00216	-.00075		

CLN	CSL	CA	PHIO	PHIC	BETAO	BETAC	ALPHAC	GRADIENT
.00237	.00054	.04426	.83690	.93809	-.11754	-.03245	1.982	29.665
.00179	.00084	.03326	.63688	.38367	-.11253	-.02852	4.262	29.802
.00026	.00013	-.00482	-.08772	-.24316	.00220	.00173		

CLN	CSL	CA	PHIO	PHIC	BETAO	BETAC	ALPHAC	GRADIENT
.00254	.00030	.04408	.84522	.96397	-.11820	-.03314	1.970	44.676
.00272	.00082	.03183	.64588	.51921	-.11536	-.03956	4.370	44.732
.00007	.00022	-.00511	-.08307	-.18536	.00118	-.00267		

CLN	CSL	CA	PHIO	PHIC	BETAO	BETAC	ALPHAC	GRADIENT
.00270	.00070	.04389	.77825	1.00299	-.10948	-.03506	2.003	50.207
.00247	.00096	.03155	.61233	.47336	-.10926	-.03608	4.371	50.098
.00010	.00011	-.00521	-.07006	-.22363	.00009	-.00043		

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ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(ANH032) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 321/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.217	2.384	-.03589	-.08529	.86275	.59455	.04338	.17198	.00496	-.00545
3.310	4.324	-.03078	-.06925	.40825	.38910	.03422	.33186	.00611	-.00534
GRADIENT	.00263	.00827	-.23423	-.10588	-.00472	.08240	.00059	.00059	.00006

RUN NO. 322/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.247	1.999	-.03140	-.08867	.90034	.63058	.04416	.15742	.00398	-.00436
7.563	4.379	-.01534	-.08216	.20086	.45887	.03364	.35237	.00537	-.00283
GRADIENT	.00675	.00274	-.29381	-.07212	-.00442	.08189	.00059	.00059	.00064

RUN NO. 323/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.032	1.980	-.02575	-.08306	.74527	.58939	.04427	.15944	.00397	-.00344
9.896	4.367	-.00963	-.07727	.12651	.43300	.03408	.35473	.00478	-.00190
GRADIENT	.00675	.00242	-.25922	-.06552	-.00427	.08181	.00034	.00034	.00065

RUN NO. 324/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
15.217	2.049	-.01481	-.08945	.41438	.62806	.04426	.17860	.00302	-.00182
15.047	4.248	-.00044	-.07449	.00590	.42100	.03468	.36018	.00318	-.00022
GRADIENT	.00654	.00680	-.18569	-.09413	-.00436	.08255	.00007	.00007	.00073

RUN NO. 325/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.998	1.976	-.00706	-.09627	.20473	.68540	.04426	.19673	.00158	-.00007
29.890	4.301	.00614	-.08313	-.08191	.46823	.03341	.39060	.00192	-.00146
GRADIENT	.00568	.00565	-.12326	-.09339	-.00467	.08337	.00015	.00015	.00066

RUN NO. 326/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.648	1.958	-.01315	-.09255	.38496	.66315	.04378	.20813	.00130	-.00058
44.989	4.325	-.00801	-.09105	.10617	.51052	.03265	.40656	.00162	.00021
GRADIENT	.00217	.00063	-.11780	-.06445	-.00470	.08384	.00013	.00013	.00033

ARC 14-120(CA238) 747/1 AT1 03S1 (CARRIER DATA) (ANH032) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 6.000 DX = .000  
 SCALE = .0125 DY = 10.000 MACH = .600

RUN NO. 327/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
49.978	1.969	-0.1805	-0.9477	.52540	.67894	.04393	-.21535	.00078	-.00091
50.163	4.264	-0.01263	-.09327	.16993	.52712	.03290	.40340	.00156	-.00023
	GRADIENT	.00236	.00065	-.15489	-.06615	-.00481	.08194	.00034	.00030

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 8.000 DX = .000  
 SCALE = .0125 DY = 10.000 MACH = .600

RUN NO. 331/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.500	2.446	-0.02145	-0.7366	.50255	.41024	.04160	.16438	.00524	-.00365
7.613	4.292	-0.00208	-.07009	.02781	.32960	.03301	.31096	.00611	-.00171
	GRADIENT	.01050	.00194	-.25727	-.04370	-.00466	.07943	.00047	.00105

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 6.000 DX = .000  
 SCALE = .0125 DY = 10.000 MACH = .600

RUN NO. 332/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.263	1.907	-0.1773	-0.7840	.53273	.44991	.04291	.12322	.00538	-.00298
9.859	4.322	.00573	-.07059	-.07601	.33288	.03292	.32276	.00575	-.00050
	GRADIENT	.00971	.00323	-.25205	-.04845	-.00414	.08262	.00015	.00103

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 6.000 DX = .000  
 SCALE = .0125 DY = 10.000 MACH = .600

RUN NO. 334/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.834	1.958	-0.0868	-.08245	-.25403	.47344	.04366	.17648	.00189	-.00145
29.957	4.362	.02584	-.07647	-.33975	.35859	.03282	.37993	.00202	.00359
	GRADIENT	.00714	.00249	-.03565	-.04777	-.00451	.08462	.00005	.00089

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

(ANH033) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 335/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.819	1.871	-.00446	-.08594	.13655	.48825	.04421	.19255	.00100	-.00042
45.000	4.278	.00050	-.08435	-.30674	.39760	.03330	.39110	.00178	.00110
	GRADIENT	.00206	.00066	-.35955	-.04182	-.00453	.08251	.00032	.00031

RUN NO. 336/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.002	1.913	-.01351	-.09054	.40462	.52405	.04380	.19634	.00111	-.00041
50.443	4.260	-.00681	-.08550	.09174	.40359	.03285	.39378	.00196	.00039
	GRADIENT	.00285	.00215	-.13329	-.05132	-.00467	.08411	.00036	.00034

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

(ANH034) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 341/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
1.515	-.031	-.04077	-.11284	-53.38770	1.09762	.04577	-.04943	-.00008	-.00333
1.466	2.266	-.04009	-.11407	1.31357	.81035	.04467	.14981	.00043	-.00301
1.364	4.259	-.04164	-.10998	.56061	.62495	.03596	.31093	.00041	-.00290
	GRADIENT	-.00019	.00064	12.78561	-.11055	-.00224	.08408	.00012	.00010

RUN NO. 342/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.218	-.127	-.03788	-.10795	-16.57080	1.02545	.04538	-.04756	.00057	-.00329
2.877	2.324	-.04051	-.10599	.99894	.74601	.04454	.16080	.00041	-.00308
3.380	4.353	-.04091	-.10964	.53900	.61357	.03547	.32450	.00026	-.00283
	GRADIENT	-.00069	-.00034	3.93383	-.09269	-.00215	.08311	-.00007	.00010

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2346.0400 IN. ZMRP = 190.7500 IN. ZC LORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

REFERENCE DATA

ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 7.400	-.0368	-7.34571	1.04426	.04569	-.04320	-.00018	-.00303
7.390	-.03617	.89645	.72987	.04469	.17520	.00047	-.00266
7.046	-.03508	4.7763	.58785	.03614	.32819	.00054	-.00231
GRADIENT	.00035	1.92472	-.10268	-.00202	.08268	.00017	.00016
RUN NO. 343/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00							
ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 9.858	-.03420	-8.02130	1.03142	.04579	-.03184	.00022	-.00280
9.870	-.03433	.84303	.73083	.04458	.18113	.00039	-.00250
9.840	-.03249	4.3814	.56184	.03595	.33823	.00055	-.00203
GRADIENT	.00036	1.96825	-.10513	-.00209	.08234	.00007	.00017
RUN NO. 344/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00							
ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 14.745	-.03016	-6.76144	.9812	.04579	-.02583	-.00007	-.00233
14.663	-.03132	.76959	.71547	.04450	.19634	.00005	-.00198
14.715	-.02981	4.0248	.56279	.03564	.35308	.00061	-.00157
GRADIENT	.00005	1.66604	-.09741	-.00216	.08426	.00015	.00017
RUN NO. 345/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00							
ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 29.743	-.03699	-7.87449	1.05513	.04593	-.00297	-.00034	-.00293
29.911	-.03586	.89504	.72658	.04382	.2281	.00040	-.00268
29.627	-.03291	4.4225	.52895	.03431	.38377	.00015	-.00196
GRADIENT	.00085	1.92536	-.11658	-.00245	.08532	.00012	.00021
RUN NO. 346/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00							
ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 44.607	-.03951	-9.54070	.96563	.04579	.01585	-.00015	-.00323
44.784	-.03779	.92333	.69784	.04305	.23859	.00071	-.00300
44.631	-.03806	5.0863	.59033	.03297	.40265	.00064	-.00268
GRADIENT	.00034	2.31764	-.08403	-.00274	.08551	.00018	.00012
RUN NO. 347/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00							

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

(ANH034) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 348/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CLN
49.960	-0.239	-0.3498	-8.32467	1.04302	-0.4538	.00043
50.084	2.361	-0.3742	.90826	.71885	.04270	.00079
50.051	4.269	-0.3761	.50325	.56278	.03249	.00122
	GRADIENT	-0.0060	2.05183	-1.10759	-0.0275	.00017

RUN NO. 349/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CLN
61.655	-0.279	-0.3495	-7.14063	.90528	.04529	.00046
61.629	2.289	-0.3743	.93720	.74681	.04270	.00037
61.640	4.275	-0.3481	.46705	.53658	.03227	.00096
	GRADIENT	-0.0002	1.74123	-0.08005	-0.0277	.00010

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

(ANH035) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 351/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CLN
3.392	.007	-0.3038	76.95740	1.69980	.04772	.00044
3.273	2.270	-0.2773	.70017	1.16320	.04590	.00030
3.233	4.244	-0.2798	.37812	.79606	.03646	.00032
	GRADIENT	.00056	-18.45311	-.21364	-0.0261	.00018

RUN NO. 352/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CLN
7.633	-0.212	-0.3062	-8.22679	1.68804	.04730	.00041
7.582	2.387	-0.2923	.70182	1.08391	.04507	.00026
7.362	4.262	-0.2756	.36910	.81823	.03617	.00007
	GRADIENT	.00067	2.00402	-1.19589	-0.0238	.00009

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .500

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .500



ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA) (ANH035) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 353/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN	BETA	RUDDER	STAB	ELEVON	DX	MACH
9.664	-.213	-.02937	-.12461	-7.85370	1.80764	.04710	.00029	.00021	-.00212	.000	.000	.000	.000	.000	.600
9.916	2.313	-.02941	-.12008	.72877	1.10894	.04491	.21517	.00017	-.00166	4.000	.000	.000	.000	.000	.000
9.803	4.259	-.02743	-.12130	36932	.85163	.03557	.37212	.00003	-.00115	.000	.000	.000	.000	.000	.000
	GRADIENT	.00041	.00079	1.91436	-.21682	-.00249	.08324	-.00004	.00021						

RUN NO. 354/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN	BETA	RUDDER	STAB	ELEVON	DX	MACH
15.113	-.270	-.02868	-.111769	-6.07208	1.70827	.04675	.00218	-.00024	-.00188	.000	.000	.000	.000	.000	.600
14.808	2.324	-.02760	-.11866	.68053	1.09587	.04470	.22477	-.00039	-.00134	4.000	.000	.000	.000	.000	.000
14.693	4.304	-.02537	-.11239	.33796	.78558	.03484	.38528	.00034	-.00100	.000	.000	.000	.000	.000	.000
	GRADIENT	.00071	.00108	1.46207	-.20346	-.00251	.08386	.00012	.00019						

RUN NO. 355/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN	BETA	RUDDER	STAB	ELEVON	DX	MACH
29.891	-.272	-.03499	-.11983	-7.33018	1.75519	.04614	.01388	.00041	-.00274	.000	.000	.000	.000	.000	.600
29.979	2.346	-.03719	-.11686	.90855	1.07113	.04352	.24198	.00062	-.00262	4.000	.000	.000	.000	.000	.000
29.891	4.294	-.03471	-.11535	.46363	.80534	.03309	.40999	.00060	-.00210	.000	.000	.000	.000	.000	.000
	GRADIENT	.00001	.00099	1.78730	-.21102	-.00275	.08678	.00004	.00014						

RUN NO. 356/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN	BETA	RUDDER	STAB	ELEVON	DX	MACH
44.449	-.271	-.03778	-.11801	-7.92866	1.75263	.04603	.02673	.00012	-.00304	.000	.000	.000	.000	.000	.600
44.799	2.322	-.03663	-.11132	.90396	1.02451	.04308	.24316	.00028	-.00261	4.000	.000	.000	.000	.000	.000
44.865	4.260	-.03708	-.10619	.49913	.74408	.03249	.41506	.00059	-.00237	.000	.000	.000	.000	.000	.000
	GRADIENT	.00017	.00261	1.94455	-.2E576	-.00289	.08557	.00010	.00015						

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ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(ANH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 361/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	1.654	ALPHAC	BETAO	PHIO	CA	CSL	CLN
	2.469	BETAC	-.13030	.91938	.04539	.00266	-.02016
		BETAC	-.18193	.91938	.04539	.00266	-.02016
		BETAC	-.18847	.73367	.03703	.00215	-.02057
		BETAC	-.00346	-.09815	-.00442	-.00027	-.00021
		GRADIENT	.00020				

RUN NO. 362/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	2.877	ALPHAC	BETAO	PHIO	CA	CSL	CLN
	3.365	BETAC	-.12648	.90360	.04591	.00279	-.02015
		BETAC	-.18935	.72225	.03517	.00264	-.02058
		BETAC	-.00120	-.07580	-.00449	-.00006	-.00018
		GRADIENT	-.00120				

RUN NO. 363/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.393	ALPHAC	BETAO	PHIO	CA	CSL	CLN
	7.226	BETAC	-.13656	.96700	.04608	.00294	-.02110
		BETAC	-.18941	.73206	.03552	.00214	-.02113
		BETAC	-.19125	-.09942	-.00447	-.00034	-.00001
		GRADIENT	.00255				

RUN NO. 364/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.858	ALPHAC	BETAO	PHIO	CA	CSL	CLN
	10.104	BETAC	-.13563	.95756	.04602	.00319	-.02145
		BETAC	-.12677	.70225	.03498	.00282	-.02134
		BETAC	-.00368	-.10501	-.00458	-.00015	.00004
		GRADIENT	-.00060				

RUN NO. 365/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.553	ALPHAC	BETAO	PHIO	CA	CSL	CLN
	14.643	BETAC	-.13410	.94518	.04596	.00346	-.02169
		BETAC	-.19291	.68639	.03433	.00252	-.02149
		BETAC	-.19407	-.10887	-.00489	-.00039	.00008
		GRADIENT	.00049				

RUN NO. 366/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.819	ALPHAC	BETAO	PHIO	CA	CSL	CLN
	29.992	BETAC	-.12862	.89724	.04505	.00384	-.02354
		BETAC	-.20804	.67676	.03354	.00285	-.02320
		BETAC	-.20777	-.09794	-.00511	-.00044	.00015
		GRADIENT	.00012				

DATE 22 MAR 76

TABULATED SOURCE DATA - CA238

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ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(ANH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 367/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
45.057	2.052	-2.1159	-1.2790	5.88810	.90037	.04478	.21780	.00425	-.02408
44.937	4.371	-2.21604	-1.2616	2.83211	.70425	.03346	.40927	.00284	-.02397
	GRADIENT	-.00192	.00075	-1.31772	-.08456	-.00488	.08256	-.00061	.00005

RUN NO. 368/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.129	2.015	-2.1146	-1.2804	5.99192	.91029	.04507	.20757	.00383	-.02414
50.420	4.439	-2.1307	-1.2437	2.75051	.69045	.03190	.43272	.00282	-.02375
	GRADIENT	-.00066	.00151	-1.33703	-.09068	-.00543	.09287	-.00042	.00016

RUN NO. 369/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
62.057	2.140	-2.1075	-1.2489	5.62690	.87077	.04410	.24024	.00380	-.02381
61.853	4.416	-2.21097	-1.2303	2.73775	.68473	.03225	.42781	.00308	-.02353
	GRADIENT	-.00010	.00082	-1.26898	-.08171	-.00520	.08239	-.00032	.00012

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(ANH037) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 371/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIJ	CA	CN	CSL	CLN
1.955	.521	-.02268	-1.2383	2.49361	1.12166	.04588	-.06024	.00065	-.00159
1.879	2.297	-.02549	-1.1879	.63611	.82874	.04357	.08164	.00035	-.00144
1.932	4.335	-.02949	-1.1948	.39023	.67006	.03334	.24508	.00055	-.00129
	GRADIENT	-.00179	.00110	-.54099	-.11742	-.00333	.08006	-.00002	.00008

PARAMETRIC DATA

BETA = .000 STAB = -1.080  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(ANH037) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 372/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.611	-.073	-.02496	-.13684	-18.87120	1.27886	.04527	-.10928	-.00014	-.00184
3.412	2.415	-.02272	-.12938	.53920	.89499	.04309	.09675	.00056	-.00120
3.341	4.372	-.03116	-.13064	4.0870	.73005	.03310	.25059	.00066	-.00137
	GRADIENT	-.00129	.00147	4.49081	-.12483	-.00266	.08104	.00018	.00011

RUN NO. 373/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.238	-.184	-.01792	-.12654	-5.57095	1.21514	.04528	-.10351	-.00019	-.00121
7.611	2.515	-.02420	-.13121	.55136	.89448	.04269	.12077	.00012	-.00112
7.497	4.363	-.02543	-.11746	3.3426	.65536	.03273	.26602	.00034	-.00090
	GRADIENT	-.00170	.00173	1.36990	-.12281	-.00263	.08141	.00012	.00007

RUN NO. 374/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.003	-.096	-.01856	-.12574	-10.99320	1.18499	.04562	-.08920	-.00035	-.00119
9.942	2.401	-.01770	-.12665	.42264	.87619	.04287	.11023	.00077	-.00058
10.030	4.474	-.02513	-.12354	3.2219	.68248	.03153	.28451	.00035	-.00087
	GRADIENT	-.00138	.00045	2.54688	-.11044	-.00302	.08172	.00016	.00008

RUN NO. 375/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.990	.036	-.01580	-.12958	23.75730	1.19552	.04587	-.06671	-.00021	-.00086
14.729	2.374	-.01943	-.12262	.46896	.85170	.04305	.11763	.00005	-.00062
14.795	4.458	-.02101	-.11862	2.7023	.65750	.03151	.29133	.00021	-.00048
	GRADIENT	-.00119	.00249	-5.40509	-.12218	-.00321	.08092	.00009	.00009

RUN NO. 376/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.795	-.037	-.02028	-.12696	-29.04110	1.19126	.04558	-.05280	.00014	-.00147
29.929	2.359	-.02769	-.12652	.67263	.87782	.04209	.13713	.00045	-.00161
30.138	4.506	-.02850	-.12061	3.6271	.66310	.02943	.32413	.00067	-.00137
	GRADIENT	-.00183	.00137	6.58687	-.11655	-.00352	.08290	.00012	.00002

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA) (ANH037) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600

RUN NO. 377/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
45.027	-.096	-.02469	-.12014	-14.48000	1.13302	.04468	-.06533	.00006	-.00194
44.952	2.497	-.02998	-.12302	.63807	.83391	.04052	.17242	.00059	-.00185
44.914	4.260	-.03340	-.12386	.44955	.69755	.02981	.32406	.00060	-.00195
	GRADIENT	-.00200	-.00087	3.50822	-.11094	-.00328	.08956	.00013	.00000

RUN NO. 378/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.481	.036	-.02125	-.11717	30.86850	1.08333	.04525	-.03388	.00032	-.00168
50.592	2.316	-.03099	-.12711	.76690	.86282	.04129	.15505	.00057	-.00195
50.369	4.524	-.03501	-.11877	.44383	.65317	.02793	.34645	.00068	-.00206
	GRADIENT	-.00307	-.00038	-6.81333	-.09579	-.00385	.08472	.00008	-.00008

RUN NO. 379/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
61.632	-.013	-.02570	-.12245	-62.78220	1.15102	.04528	-.03088	-.00001	-.00195
61.965	2.379	-.02957	-.12133	.71238	.83841	.04060	.16759	.00058	-.00180
61.651	4.408	-.03202	-.11829	.41654	.65927	.02819	.34307	.00056	-.00184
	GRADIENT	-.00143	.00093	14.65652	-.11180	-.00381	.08453	.00013	.00003

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA) (ANH038) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600

RUN NO. 381/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
1.603	.046	-.03585	-.12129	37.71810	1.16331	.04455	-.04877	-.00003	-.00290
1.569	2.293	-.03898	-.12271	.97421	.86754	.04295	.14601	-.00018	-.00274
2.306	4.387	-.04440	-.12060	.58044	.66987	.03290	.31015	.00004	-.00302
	GRADIENT	-.00196	.00015	-8.65058	-.11390	-.00266	.08274	.00002	-.00003

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(ANH03B) ( 08 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 382/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.468	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
		.019	-.04292	-.12442	65.58800	1.15052	.04450	-.03663	.00028	-.00374
	3.699	2.422	-.04300	-.12381	1.01754	.85131	.04239	.15769	.00025	-.00324
	3.469	4.425	-.04540	-.12016	.58844	.66722	.03290	.31758	.00024	-.00321
		GRADIENT	-.00055	.00094	-15.15230	-.11019	-.00258	.08042	-.00001	.00012

RUN NO. 383/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.736	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
		-.027	-.03671	-.11960	-53.27060	1.10916	.04479	-.02846	.00006	-.00299
	6.902	2.422	-.04018	-.12460	.95082	.86612	.04257	.17397	.00007	-.00293
	7.339	4.419	-.04382	-.12334	.56875	.68592	.03275	.33682	-.00019	-.00301
		GRADIENT	-.00159	-.00089	12.48313	-.09535	-.00264	.08218	-.00005	-.00000

RUN NO. 384/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	10.309	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
		.047	-.03699	-.12375	38.45710	1.13445	.04508	-.01411	-.00010	-.00287
	9.703	2.409	-.03787	-.12099	.90067	.83905	.04293	.18006	.00008	-.00274
	10.031	4.489	-.04151	-.11816	.53038	.65168	.03233	.34932	.00002	-.00285
		GRADIENT	-.00100	.00126	-8.70301	-.10905	-.00283	.08181	.00003	.00001

RUN NO. 385/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	15.037	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
		-.141	-.03593	-.11641	-14.34110	1.10172	.04444	-.03650	-.00002	-.00294
	14.866	2.495	-.03772	-.12284	.86659	.84153	.04262	.20187	.00015	-.00373
	14.675	4.418	-.03729	-.12257	.48407	.66098	.03249	.36116	.00041	-.00253
		GRADIENT	-.00032	-.00142	3.40255	-.09268	-.00251	.08743	.00009	.00009

RUN NO. 386/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.004	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
		-.165	-.03289	-.12310	-11.30050	1.17505	.04524	.00925	.00036	-.00272
	29.816	2.497	-.03586	-.11997	.82315	.82081	.04279	.23089	.00046	-.00270
	30.280	4.402	-.03419	-.11822	.44541	.65465	.03273	.38041	.00078	-.00339
		GRADIENT	-.00034	.00108	2.69869	-.11518	-.00263	.08140	.00009	.00007

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600 MACH = .600

PARAMETRIC DATA

DZ	44.879	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	44.946	.070	-.03347	-.12025	25.58280	1.11116	.04570	.04418	-.00008	-.00263
	44.926	2.481	-.03546	-.12293	.81918	.83934	.04224	.24503	-.00002	-.00254
		4.448	-.03751	-.11277	.48369	.62394	.03134	4.1182	.00045	-.00254
		GRADIENT	-.00092	.00160	-5.90136	-.11134	-.00321	.08395	.00012	.00002

PARAMETRIC DATA

DZ	49.971	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	50.192	-.037	-.03541	-.12247	-44.04270	1.15620	.04573	.03765	-.00033	-.00283
	50.609	2.513	-.03630	-.12127	.82787	.82743	.04187	.25697	.00015	-.00269
		4.284	-.03528	-.12302	.47228	.68898	.03253	.39893	.00090	-.00245
		GRADIENT	.00000	-.00009	10.81298	-.10959	-.00295	.08378	.00028	.00009

PARAMETRIC DATA

DZ	61.515	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	60.520	-.115	-.03365	-.12518	-16.33250	1.19977	.04506	.02070	-.00017	-.00272
		2.529	-.03464	-.12084	.78499	.83717	.04177	.26101	.00028	-.00257
		GRADIENT	-.00038	.00164	6.47423	-.13714	-.00124	.09089	.00017	.00006

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600 MACH = .600

PARAMETRIC DATA

DZ	3.148	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	3.390	2.388	-.18785	-.12482	4.49942	.87245	.04328	.14889	.00228	-.02007
		4.263	-.18878	-.11294	2.53815	.63710	.03453	.29800	.00227	-.02008
		GRADIENT	-.00050	.00634	-1.04514	-.12554	-.00466	.07953	-.00001	-.00000

ORIGINAL PAGE IS  
 OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 0291 (CARRIER DATA) (ANH039) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 LORF = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 392/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 7.312 ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 2.139 -1.9944 -1.3097 5.32723 .91607 .0424 .14616 .00311  
 4.461 -2.0873 -1.2354 2.68162 .68560 .03325 .34024 .00171  
 7.376 GRADIENT -0.00400 .00320 -1.13959 -.09928 -.00473 .08360 -.00060

RUN NO. 393/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 9.885 ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 10.083 2.001 -2.0379 -1.12519 5.81649 .88852 .04486 .14403 .00321  
 4.424 -2.1043 -1.12231 2.72628 .67971 .03466 .32960 .00230  
 GRADIENT -0.00274 .00119 -1.27561 -.08619 -.00421 .07660 -.00038

RUN NO. 394/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 15.083 ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 14.830 2.141 -2.1222 -1.12298 5.66248 .85717 .04480 .17058 .00368  
 4.433 -2.1434 -1.12295 2.77127 .68384 .03431 .35061 .00263  
 GRADIENT -0.00093 .00001 -1.26160 -.07564 -.00458 .07856 -.00046

RUN NO. 395/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 29.781 ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 29.790 2.045 -2.2127 -1.12536 6.17644 .88750 .04518 .18664 .00389  
 4.494 -2.2565 -1.12372 2.87720 .68440 .03285 .39477 .00354  
 GRADIENT -0.00179 .00067 -1.34699 -.08292 -.00503 .08497 -.00014

RUN NO. 396/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 44.565 ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 44.873 2.160 -2.2269 -1.12330 5.88804 .86363 .04445 .21771 .00389  
 4.367 -2.2366 -1.12144 2.93447 .67831 .03358 .39810 .00269  
 GRADIENT -0.00044 .00084 -1.33798 -.08395 -.00493 .08172 -.00055

RUN NO. 397/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 50.286 ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 50.569 2.123 -2.2107 -1.12019 5.94619 .84223 .04454 .21610 .00386  
 4.396 -2.2250 -1.11875 2.90042 .65977 .03308 .40454 .00294  
 GRADIENT -0.00063 .00063 -1.34005 -.08027 -.00504 .08291 -.00040



DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(AMMD40) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 401/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.048	-.004	-.04526	-.12383	-84.40830	1.79753	.04628	-.02135	-.00011	-.00366
3.021	2.318	-.04739	-.12449	1.17152	1.15912	.04459	.18288	-.00012	-.00366
3.274	4.401	-.04833	-.12570	.62992	.86840	.03425	.34984	.00011	-.00345
	GRADIENT	-.00070	-.00042	15.64100	-.21215	-.00269	.08434	.00005	.00005

RUN NO. 402/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.066	-.091	-.04561	-.12340	-26.59500	1.74014	.04654	-.01314	-.00048	-.00381
7.198	2.490	-.04595	-.12280	1.05741	1.10813	.04401	.20386	.00019	-.00363
7.335	4.405	-.04855	-.12015	.63211	.82845	.03412	.35950	.00019	-.00347
	GRADIENT	-.00062	.00070	6.31765	-.20513	-.00266	.08294	.00015	.00008

RUN NO. 403/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.793	.024	-.04725	-.12556	63.05230	1.71279	.04655	.00435	.00004	-.00396
9.766	2.449	-.04658	-.12467	1.05000	1.12877	.04395	.20503	.00048	-.00369
9.745	4.293	-.04791	-.12001	.63994	.83988	.03480	.35816	.00004	-.00341
	GRADIENT	-.00013	.00125	-15.17967	-.20634	-.00267	.08287	.00001	.00013

RUN NO. 404/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.781	-.155	-.04369	-.12009	-15.70640	1.70846	.04586	-.01378	-.00011	-.00377
14.685	2.568	-.04618	-.11619	1.03042	1.03612	.04318	.23460	.00022	-.00355
14.592	4.303	-.04516	-.11327	.60193	.73139	.03454	.36962	.00031	-.00320
	GRADIENT	-.00038	.00152	3.87923	-.20936	-.00240	.08646	.00010	.00012

RUN NO. 405/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.804	-.120	-.03979	-.11880	-18.37600	1.68114	.04575	.00947	-.00003	-.00324
29.944	2.563	-.03976	-.12496	.88999	1.10861	.04270	.25061	.00065	-.00294
29.835	4.329	-.03620	-.11079	.47959	.76992	.03353	.39347	.00054	-.00234
	GRADIENT	.00074	.00147	4.47929	-.20554	-.00262	.08661	.00014	.00019

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH040) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 406/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHI0	CA	CN	CSL	CLN
44.515	-.091	-.03758	-.12018	-22.46140	1.70509	.04552	.02212	.00001	-.00298
44.728	2.446	-.03906	-.11965	.91512	1.08198	.04276	.24777	.00010	-.00278
44.671	4.476	-.03830	-.11246	.49076	.77014	.03144	.42570	.00056	-.00239
	GRADIENT	-.00018	.00163	5.19729	-.20639	-.00300	.08839	.00012	.00013

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .500

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH041) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 411/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHI0	CA	CN	CSL	CLN
3.328	2.137	-.03541	-.09515	.94918	.88790	.04425	.15651	.00002	-.00339
3.325	4.298	-.03664	-.09550	.48885	.66669	.03413	.33927	.00009	-.00331
	GRADIENT	-.00077	-.00016	-.21302	-.10237	-.00468	.08458	.00003	.00004

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .500

RUN NO. 412/ 0

RN/L = 2.96 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHI0	CA	CN	CSL	CLN
6.838	2.085	-.03560	-.09548	.97846	.69942	.04470	.17465	-.00019	-.00354
7.184	4.439	-.03628	-.09540	.46870	.65598	.03336	.35990	.00032	-.00326
	GRADIENT	-.00029	.00003	-.21656	-.10342	-.00482	.07870	.00022	.00012

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .500

RUN NO. 413/ 0

RN/L = 2.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHI0	CA	CN	CSL	CLN
9.770	2.218	-.03337	-.09512	.86236	.86976	.04382	.18802	.00066	-.00336
9.780	4.469	-.03503	-.09551	.44953	.65318	.03316	.36342	.00074	-.00319
	GRADIENT	-.00074	-.00018	-.18334	-.09618	-.00473	.07790	.00004	.00007

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .500

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH041) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .500

PARAMETRIC DATA

RUN NO. 414/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.789	1.986	-.03463	-.0972	.9901	.94498	.04479	.18170	-.00013	-.00342
14.819	4.441	-.03469	-.10173	.44801	.69804	.03274	.37930	.00036	-.00305
	GRADIENT	-.00003	-.00082	-.22448	-.11060	-.00491	.08050	.00020	.00015

RUN NO. 415/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.638	2.215	-.03194	-.09737	.82645	.89338	.04356	.22046	.00011	-.00293
29.826	4.415	-.03206	-.09720	.41654	.66870	.03164	.39953	.00066	-.00269
	GRADIENT	-.00006	.00008	-.18633	-.10214	-.00542	.08140	.00025	.00011

RUN NO. 416/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.438	2.214	-.02950	-.09702	.76327	.89411	.04273	.23787	.00064	-.00270
44.694	4.330	-.03196	-.09264	.42333	.64395	.03157	.41012	.00055	-.00260
	GRADIENT	-.00117	.00207	-.11670	-.11826	-.00528	.08143	.00000	.00005

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH042) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .300

PARAMETRIC DATA

RUN NO. 421/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.128	2.209	-.01658	-.10574	.43017	.98557	.04639	.18514	-.00008	-.00334
3.123	4.221	-.01698	-.10352	.23072	.73034	.03627	.34643	-.00001	-.00315
	GRADIENT	-.00020	.00110	-.09912	-.12683	-.00503	.08015	.00004	.00009

RUN NO. 422/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.085	2.291	-.01571	-.10101	.39307	.92205	.04584	.21072	.00073	-.00313
7.303	4.347	-.01790	-.10423	.23609	.71971	.03530	.36398	.00038	-.00344
	GRADIENT	-.00106	-.00157	-.07635	-.09841	-.00512	.07454	-.00017	-.00015

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(ANH042) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .300

RUN NO. 423/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.285	2.180	-0.1697	-1.0209	.44607	.95456	.04639	.19880	-0.0025	-0.00334
9.970	4.347	-0.1622	-0.0942	.21396	.68472	.03476	.36855	.00056	-0.00306
	GRADIENT	.00035	.00123	-.10711	-.12452	-.00536	.07833	.00038	.00013

RUN NO. 424/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.488	2.266	-0.1640	-1.0326	.41472	.94742	.04606	.21359	.00020	-0.00319
14.575	4.354	-0.1712	-1.0167	.22551	.70320	.03422	.38437	.00016	-0.00307
	GRADIENT	-.00035	.00077	-.09063	-.11698	-.00567	.08181	-.00002	.00005

RUN NO. 425/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.804	2.191	-0.1582	-1.0294	.41379	.95078	.04576	.22456	.00021	-0.00293
29.724	4.292	-0.1592	-1.0150	.21265	.70620	.03389	.39944	-.00007	-0.00260
	GRADIENT	-.00004	.00068	-.09574	-.11641	-.00565	.08324	-.00013	.00015

RUN NO. 426/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.766	2.202	-0.1510	-0.9798	.39313	.90420	.04482	.24004	-.00005	-0.00263
44.688	4.266	-0.1442	-0.9990	.19389	.69668	.03247	.39671	.00036	-0.00230
	GRADIENT	.00033	-.00093	-.09653	-.10054	-.00599	.07590	.00020	.00016

ARC 14-120(CA23B) 747/1 ATI

REFERENCE DATA

SREF = 5500.0000 SQ.FT.      XMRP = 1339.9000 IN. XC      BETA = .000      STAB = -1.000  
 LREF = 327.7800 IN.      YMRP = .0000 IN. YC      RUDDER = .000      MACH = .600  
 BREF = 2348.0400 IN.      ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

RUN NO.    41 / 0    RN/L = 3.40    GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
131.927	-5.187	-.52097	-1.25656	-.02663	-.01546	.08562
131.734	-3.684	-.62283	-.76289	-.03132	-.01962	.08387
131.595	-2.684	-.74482	-.48491	-.01759	-.00630	.09591
131.467	-1.696	-.94338	-.35535	-.02858	-.01713	.08374
131.339	-.712	-1.57780	-.25950	-.02820	-.01541	.08057
131.218	.186	-12.09710	-.22046	-.02643	-.00939	.08486
131.073	1.254	1.17060	-.17503	-.03114	-.01270	.08138
130.941	2.216	.45057	-.15610	-.01463	.00024	.09595
130.802	3.190	.23009	-.14431	-.02742	-.01488	.07957
130.668	4.233	.10305	-.14223	-.02842	-.01055	.08388
130.501	5.283	.04378	-.14268	-.03335	-.01304	.08505
130.357	6.213	.01847	-.12300	-.03072	-.01016	.08062
130.219	7.193	-.00350	-.10308	-.02281	-.00170	.09595
130.047	8.200	.00293	-.06339	-.02845	-.00642	.08622
	GRADIENT	.20620	.06740	.00012	.00081	-.00040

ORIGINAL PAGE IS  
 OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1

(BNH005) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 MACH = .600

RUN NO. 51/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
130.569	-5.190	.13526	-7.3389	-.01669	-.01828	.11684
130.436	-3.773	.32773	-.52945	-.02098	-.01514	.11182
130.276	-2.866	.56256	-.39776	-.02009	-.01423	.10628
130.158	-1.854	1.32626	-.28072	-.02586	-.00182	.12511
130.031	-.858	5.98906	-.25456	-.02021	-.01462	.10545
129.869	.149	-3.42985	-.26678	-.02388	-.00253	.12173
129.728	1.216	-1.51201	-.24606	-.01391	-.00808	.11018
129.596	2.190	-1.02481	-.21503	-.01337	-.00648	.11439
129.434	3.207	-.81091	-.19323	-.01530	-.00388	.11188
129.329	4.111	-.68437	-.18580	-.01786	-.00668	.11863
129.085	5.180	-.58288	-.17325	-.00181	.01245	.12437
128.927	6.172	-.51082	-.15242	-.00444	.01036	.12713
128.889	7.226	-.44495	-.12511	-.00330	.01267	.10878
128.737	8.205	-.38511	-.08664	.00770	.01525	.11412
	GRADIENT	-.34381	.03538	.00030	.00103	.00045

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(BNH008) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 81/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
4.365	.192	-1.99713	-.27822	-.03588	-.04936	.08524
2.954	2.364	3.45133	-.24733	-.03274	-.03998	.08761
3.443	4.308	.73920	-.19305	-.02390	-.03379	.08521
	GRADIENT	.70049	.02056	.00288	.00379	.00001

RUN NO. 82/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
6.994	-.126	-1.73392	-.29174	-.02428	-.03768	.09844
7.541	2.378	2.27330	-.17758	-.03058	-.03836	.08398
7.335	4.351	.59772	-.14266	-.02042	-.02494	.09409
	GRADIENT	.56606	.03375	.00072	.00270	-.00118

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (BNH008) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .55126 .03644 .00182 .00432 .00179 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 83/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.751	-.141	-1.77398	-.29851	-.03479	-.04507	.08269
9.637	2.414	1.82848	-.18214	-.02201	-.03185	.09043
9.522	4.401	.53863	-.13505	-.02724	-.02563	.09053
	GRADIENT	.55126	.03644	.00182	.00432	.00179

RUN NO. 84/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.752	-.014	-1.93432	-.29271	-.02151	-.01592	.09867
15.063	2.461	1.33466	-.16558	-.02312	-.00367	.10052
15.188	4.492	.41399	-.14098	-.02148	-.01320	.09446
	GRADIENT	.54990	.03431	-.00002	.00076	-.00087

RUN NO. 85/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.536	-.028	-2.03844	-.32426	-.01885	-.02365	.09741
29.860	2.464	.88985	-.18362	-.02555	-.02368	.09307
29.902	4.306	.30993	-.15538	-.01776	-.01217	.09652
	GRADIENT	.57791	.03996	.00008	.00250	-.00029

RUN NO. 86/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.873	-.065	-1.97441	-.30838	-.03907	-.03487	.08358
44.666	2.496	.69134	-.17669	-.01881	-.01775	.09517
45.029	4.342	.24050	-.15162	-.02049	-.01437	.09433
	GRADIENT	.53617	.03656	.00445	.00478	.00257

RUN NO. 87/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
50.039	-.106	-2.27263	-.30290	-.02771	-.02928	.08998
50.412	2.490	.69563	-.18225	-.02134	-.02001	.10023
50.166	4.334	.22023	-.15036	-.02937	-.02568	.08084
	GRADIENT	.59955	.03515	-.00019	.00099	-.00166

ARC 14-120(CA23B) 747/1 ATI 0251 (CARRIER DATA) (BNH009) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 91/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
8.075	.274	-2.14495	-.30703	-.03238	-.03344	.08585
7.276	2.380	4.86789	-.21619	-.03387	-.03334	.08029
7.800	4.334	.97526	-.16127	-.02261	-.01913	.09256
	GRADIENT	.80175	.03600	.00237	.00348	.00160

RUN NO. 92/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.930	-.015	-1.83377	-.37537	-.02838	-.03339	.08788
10.158	2.498	3.48849	-.22391	-.02302	-.02488	.09456
9.843	4.339	.86073	-.16163	-.01970	-.02077	.08784
	GRADIENT	.70700	.04975	.00200	.00293	.00015

RUN NO. 93/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.862	-.101	-1.77825	-.38069	-.01836	-.02049	.10032
14.490	2.534	2.34671	-.21978	-.02456	-.02376	.09358
15.108	4.322	.69382	-.15664	-.01516	-.01277	.09423
	GRADIENT	.63447	.05143	.00049	.00152	-.00147

RUN NO. 94/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.926	-.027	-2.13156	-.32952	-.03467	-.03362	.08435
29.957	2.539	1.23148	-.20988	-.02544	-.02092	.09638
29.720	4.365	.41937	-.16592	-.01927	-.01419	.09390
	GRADIENT	.62834	.03786	.00351	.00446	.00234

RUN NO. 95/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.465	-.192	-1.80863	-.35302	-.03025	-.02998	.08796
44.798	2.406	1.05177	-.19860	-.03450	-.03213	.08653
44.825	4.485	.28910	-.15570	-.01892	-.01200	.09827
	GRADIENT	.47527	.04290	.00226	.00365	.00209



REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 96/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2	BETA	STAB	=	-1.000
50.555	-.078	-2.20041	-.29261	-.03413	-.03097	.08209	.000	.000	=	.000
50.407	2.550	.79682	-.18452	-.02271	-.01659	.09574	.000	ELEVON	=	5.000
50.452	4.393	.27351	-.15773	-.01395	-.00864	.09807	1.0RB	=	8.000	.000
	GRADIENT	.59322	.03091	.00450	.00503	.00368	DY	=	.000	.600

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 101/ 0 RN/L = 3.39 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2	BETA	STAB	=	5.000
6.742	.132	1.14846	-.29482	.06228	.04405	.19015	.000	.000	=	.000
7.349	2.303	-.71427	-.22808	.01503	.00540	.13437	.000	ELEVON	=	5.000
7.463	4.270	-.44501	-.17954	.01041	.00101	.13099	1.0RB	=	8.000	.000
	GRADIENT	-.39322	.02791	-.01269	-.01053	-.01449	DY	=	.000	.600

RUN NO. 102/ 0 RN/L = 3.38 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2	BETA	STAB	=	5.000
10.009	-.206	.78970	-.28557	.00114	-.00979	.12879	.000	.000	=	.000
10.088	2.335	-.76688	-.20748	.00466	-.00698	.12422	.000	ELEVON	=	5.000
10.447	4.346	-.48769	-.15890	.00678	-.00325	1.08143	1.0RB	=	8.000	.000
	GRADIENT	-.29492	.02795	.00125	.00142	.20015	DY	=	.000	.600

RUN NO. 103/ 0 RN/L = 3.37 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2	BETA	STAB	=	5.000
15.028	-.178	1.85197	-.27493	-.00885	-.01907	.11246	.000	.000	=	.000
14.812	2.367	-.85413	-.21615	.00438	-.00756	.12005	.000	ELEVON	=	5.000
15.043	4.381	-.54768	-.16188	.00329	-.00147	.12224	1.0RB	=	8.000	.000
	GRADIENT	-.54938	.02472	.00277	.00389	.00218	DY	=	.000	.600

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (BNH010) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 104/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.734	-.108	23.92230	-.27220	.00685	-.00083	.12387
30.254	2.360	-.95131	-.23043	.00404	-.00153	.12317
29.860	4.407	-.62146	-.19607	.00729	.00384	.12658
	GRADIENT	-5.59431	.01687	.00006	.00099	.00057

RUN NO. 105/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.868	-.111	-9.92696	-.28951	-.00905	-.01560	.11276
45.183	2.422	-.94784	-.22429	.00915	.00490	.13221
45.129	4.429	-.63474	-.18552	.00678	.00066	.12428
	GRADIENT	2.11090	.02282	.00365	.00378	.00276

RUN NO. 106/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
50.418	-.076	-8.51375	-.29068	-.01210	-.01711	.10782
50.480	2.472	-.94165	-.23280	.00917	.00385	.12849
50.477	4.415	-.63497	-.19101	.00569	.00409	.12372
	GRADIENT	1.81580	.02222	.00418	.00490	.00377

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (BNH011) ( 08 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 111/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.151	.047	-2.04310	-.23420	-.01019	-.02531	.11837
3.118	2.270	1.42806	-.15318	-.03813	-.04870	.08733
3.528	4.264	.39107	-.11360	-.02662	-.03599	.09383
	GRADIENT	.59592	.02875	-.00406	-.00268	-.00597

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .0000 MACH = .600

PARAMETRIC DATA

RUN NO. 112/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.547	-1.170	-1.95675	-24365	-02580	-02926	11209
7.199	2.385	1.03632	-15072	-02744	-03413	09675
7.175	4.257	.33629	-12202	-02656	-03084	09746
	GRADIENT	.55652	.02800	-00020	-00045	-00346

RUN NO. 113/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.751	-1.120	-2.19015	-23829	-03218	-04117	09891
9.781	2.353	1.00476	-16284	-02432	-03075	09885
9.491	4.419	.29553	-12562	-02498	-02632	09666
	GRADIENT	.57180	.02501	.00164	.00330	-00048

RUN NO. 114/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.874	-0.41	-2.32167	-25371	-02620	-03314	10061
14.967	2.414	.86275	-16462	-02768	-03141	09520
14.923	4.392	.26633	-13040	-03169	-03038	08747
	GRADIENT	.61202	.02815	-00121	.00062	-00293

RUN NO. 115/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.907	-1.177	-2.35984	-27423	-02513	-02142	10838
29.803	2.432	.63031	-15731	-02372	-01900	10192
29.693	4.435	.18441	-13475	-02395	-01703	09506
	GRADIENT	.58096	.03096	.00029	.00095	-00287

RUN NO. 116/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.786	-1.134	-3.18191	-26560	-01910	-01697	10062
45.057	2.347	.54219	-15687	-01702	-02021	09936
44.452	4.450	.15130	-13512	-02062	-01394	09970
	GRADIENT	.75002	.02892	-00030	.00060	-00021

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(BNH012) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 121/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.209	.038	-2.04595	-.25195	-.02539	-.02751	.10808
3.176	2.411	2.41587	-.18771	-.03188	-.03560	.08812
3.398	4.319	.71203	-.14874	-.02194	-.02074	.09674
	GRADIENT	.69351	.02422	.00076	.00138	-.00288

RUN NO. 122/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.586	-.026	-2.23629	-.27652	-.03645	-.04117	.09088
7.752	2.399	1.85761	-.19307	-.01860	-.02333	.09803
7.261	4.448	.55857	-.14172	-.02267	-.02080	.09319
	GRADIENT	.65693	.03026	.00321	.00465	.00059

RUN NO. 123/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
10.180	-.156	-1.98039	-.31724	-.01981	-.02674	.10498
9.988	2.439	1.57283	-.18664	-.02211	-.02530	.09840
10.110	4.458	.48588	-.13552	-.01512	-.01699	.09544
	GRADIENT	.57332	.03989	.00093	.00204	-.00209

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 131/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.093	.127	2.53679	-.09399	-.00015	-.01746	.12234
3.006	2.255	-.95078	-.09033	-.00761	-.02145	.11135
3.460	4.338	-.54726	-.05917	-.00433	-.01928	.09898
	GRADIENT	-.73568	.00825	-.00100	-.00044	-.00555

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(BNH013) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) (BNH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC GRADIENT = .000 DX = .000  
 SCALE = .0125 GRADIENT = .64746 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 132/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.217	-.139	2.21846	-.11608	-.01656	-.02835	.10594
7.234	2.360	-.97219	-.07588	-.00215	-.01379	.11776
7.262	4.367	-.58027	-.05220	-.00160	-.01460	.10886
	GRADIENT	-.64746	.01425	.00342	.00316	.00081

RUN NO. 133/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
10.116	-.237	2.29280	-.14767	-.01184	-.02228	.10866
9.960	2.407	-.95664	-.08322	-.00105	-.01386	.11485
9.890	4.371	-.59834	-.06337	.00533	-.00395	.11751
	GRADIENT	-.66109	.01864	.00399	.00393	.00194

RUN NO. 134/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
15.175	-.191	4.55151	-.15620	-.00860	-.02172	.10953
14.756	2.411	-1.00949	-.10235	-.00246	-.01494	.11419
15.038	4.441	-.61710	-.07660	.00556	-.00584	.11554
	GRADIENT	-1.16282	.01735	.00303	.00339	.00132

RUN NO. 135/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
30.192	-.063	-12.08780	-.22282	-.00084	-.00382	.12270
29.830	2.435	-1.00218	-.17646	.00099	-.00934	.11788
29.948	4.393	-.66050	-.15307	-.00307	-.01193	.10621
	GRADIENT	2.64919	.01579	-.00045	-.00184	-.00362

RUN NO. 136/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.708	-.049	-6.51391	-.25732	.00356	-.00486	.11923
44.452	2.450	-.97243	-.18922	.00211	-.00576	.11819
44.667	4.474	-.65251	-.16514	.00643	.00129	.12050
	GRADIENT	1.33168	.02065	.00059	.00129	.00026

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (BNH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 137/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
50.164	-.057	-6.77468	-.25222	.00043	-.00744	.11979
50.275	2.433	-.97888	-.19360	.01011	-.00315	.11946
50.038	4.464	-.64985	-.16352	.00594	-.00463	.11679
	GRADIENT	1.39079	.01976	.00132	.00066	-.00065

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (BNH014) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 141/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.324	2.292	-.87316	.01211	-.01522	-.01522	.01387
3.528	4.239	-.51937	.01242	-.01821	-.01332	.01516
	GRADIENT	.18178	.00016	-.00154	.00097	.00067

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 142/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.340	1.933	-1.03089	-.00588	-.02696	-.02963	.00723
7.097	4.300	-.55926	.01666	-.00475	.00209	.03271
	GRADIENT	.19920	.00952	.00938	.01340	.01076

RUN NO. 143/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
10.137	1.946	-1.06536	.02818	-.03092	-.02851	.00712
9.825	4.403	-.57681	.01674	-.01126	-.00593	.02610
	GRADIENT	.19883	-.00466	.00796	.00919	.00773

REFERENCE DATA

SREF = 5500.0000 SQ.FT.      XMRP = 1339.9000 IN. XC      BETA = .000      STAB = 5.000  
 LREF = 327.7800 IN.      YMRP = .0000 IN. YC      RUDDER = .000      ELEVON = 5.000  
 BREF = 2348.0400 IN.      ZMRP = 190.7500 IN. ZC      LORB = 6.000      DX = 10.000  
 SCALE = .0125                DY = .000      MACH = .600

PARAMETRIC DATA

ARC 14-120(CA23B) 7-4771 AT1 02S1 (CARRIER DATA)	GRADIENT INTERVAL = -5.00/ 5.00
RUN NO. 144/ 0    RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00
DZ    14.831	ALPHAC    XZCP    XYCP    CPCC    CPSB1    CPSB2
14.775	1.968    -1.11585    -.04841    -.01770    -.01716    .02502
	4.376    -.51099    -.03870    -.01166    -.00921    .02801
	GRADIENT    .20969    .00404    .00251    .00330    .00124
RUN NO. 145/ 0    RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00
DZ    30.007	ALPHAC    XZCP    XYCP    CPCC    CPSB1    CPSB2
29.873	1.997    -1.10304    -.17800    -.01142    -.01142    .03076
	4.392    -.64240    -.13780    -.00787    -.00706    .03068
	GRADIENT    .19233    .01679    .00148    .00182    -.00003
RUN NO. 146/ 0    RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00
DZ    44.854	ALPHAC    XZCP    XYCP    CPCC    CPSB1    CPSB2
44.891	1.998    -1.11751    -.21692    -.01826    -.01639    .02486
	4.430    -.64242    -.15564    -.00386    -.00224    .03899
	GRADIENT    .19533    .02520    .00592    .00582    .00581
RUN NO. 147/ 0    RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00
DZ    50.387	ALPHAC    XZCP    XYCP    CPCC    CPSB1    CPSB2
50.182	2.049    -1.06248    -.19865    -.02245    -.02406    .01771
	4.431    -.64469    -.15595    -.00919    -.00649    .02997
	GRADIENT    .17539    .01793    .00557    .00738    .00515

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ARC 14-120(CA23B) 747/1 ATI 0251 (CARRIER DATA)

(BNH015) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 151/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.261  
 7.540  
 ALPHAAC 2.410  
 XZCP -.59750  
 XYCP -.03198  
 CPCC -.00794  
 CPSB1 -.00984  
 CPSB2 .02509  
 GRADIENT 4.362  
 .38290  
 -.00855  
 -.00312  
 .03375  
 .10996  
 -.00929  
 -.00031  
 .00344  
 .00444

RUN NO. 152/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 9.896  
 10.215  
 ALPHAAC 2.043  
 XZCP -.73653  
 XYCP -.05109  
 CPCC -.00477  
 CPSB1 -.00233  
 CPSB2 .02998  
 GRADIENT 4.469  
 .42530  
 -.00698  
 -.00644  
 .03318  
 .12833  
 -.00138  
 -.00091  
 -.00170  
 .00132

RUN NO. 153/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 14.806  
 14.750  
 ALPHAAC 2.079  
 XZCP -.84287  
 XYCP -.08147  
 CPCC -.02230  
 CPSB1 -.02123  
 CPSB2 .03037  
 GRADIENT 4.497  
 .48869  
 -.06213  
 -.00555  
 -.00338  
 .05245  
 .14651  
 .00800  
 .00693  
 .00738  
 .00913

RUN NO. 154/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 30.131  
 30.087  
 ALPHAAC 2.049  
 XZCP -.99197  
 XYCP -.20731  
 CPCC -.02001  
 CPSB1 -.02216  
 CPSB2 .03496  
 GRADIENT 4.493  
 .58576  
 -.16204  
 -.00559  
 .00089  
 .05382  
 .16618  
 .01852  
 .00590  
 .00943  
 .00772

RUN NO. 155/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 44.833  
 45.102  
 ALPHAAC 2.044  
 XZCP -1.02843  
 XYCP -.22047  
 CPCC -.00915  
 CPSB1 -.00400  
 CPSB2 .04747  
 GRADIENT 4.460  
 .61912  
 -.17140  
 -.00131  
 .00086  
 .05698  
 .16944  
 .02032  
 .00324  
 .00201  
 .00394

RUN NO. 156/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 50.292  
 50.425  
 ALPHAAC 2.016  
 XZCP -1.04921  
 XYCP -.23542  
 CPCC -.02298  
 CPSB1 -.01735  
 CPSB2 .03849  
 GRADIENT 4.375  
 .62540  
 -.17724  
 -.01558  
 -.01237  
 .03879  
 .17963  
 .02466  
 .00314  
 .00211  
 .00013



(BNH016) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 6.000 DX = 20.000  
 SCALE = .0125 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 161/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
2.997	2.461	-7.1073	.00238	-.01885	-.00152	.03045
3.241	4.340	-.46504	-.02723	-.01516	.00001	.03386
	GRADIENT	.13081	-.01576	.00197	.00081	.00182

RUN NO. 162/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.114	2.024	-.89037	-.05094	-.03042	-.01513	.01919
7.110	4.482	-.51140	-.03987	-.01344	.00310	.03972
	GRADIENT	.15415	.00450	.00690	.00742	.00835

RUN NO. 163/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
10.110	1.989	-.97179	-.05213	-.01821	.00019	.03890
9.502	4.485	-.53515	-.04348	-.01421	.00370	.04279
	GRADIENT	.17494	.00347	.00160	.00141	.00156

RUN NO. 164/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.885	2.147	-.94564	-.09765	-.02711	-.01318	.02270
14.669	4.296	-.58585	-.07905	-.01380	-.00269	.04477
	GRADIENT	.16746	.00866	.00619	.00489	.01027

RUN NO. 165/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.970	2.006	-1.06458	-.20607	-.02184	-.01167	.04000
29.738	4.442	-.62109	-.16292	-.00550	.00398	.05894
	GRADIENT	.18205	.01771	.00671	.00642	.00777

RUN NO. 166/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.740	2.001	-1.05872	-.22344	-.02060	-.00320	.03429
44.620	4.440	-.62653	-.17061	-.00553	.00936	.05080
	GRADIENT	.17721	.02166	.00618	.00515	.00677

ARC 14-120(CA238) 747/1 ATI 0251 (CARRIER DATA)

(BNH016) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN ZC

RUN NO. 167/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
50.218	1.383	-1.09003	-.22816	-.01322	-.00046	.04000
50.509	4.478	-.62335	-.17023	-.00348	.01526	.04540
	GRADIENT	.18701	.02321	.00390	.00630	.00216

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA238) 747/1 ATI 0251 (CARRIER DATA)

(BNH017) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN ZC

RUN NO. 171/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
7.409	2.320	-.58230	-.10898	-.01577	-.01116	.08509
7.682	4.409	-.34657	-.09025	-.01124	-.00852	.08658
	GRADIENT	.11288	.00897	.00217	.00125	.00071

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 172/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
10.200	1.989	-.68963	-.12983	-.02208	-.02074	.07747
9.876	4.367	-.40271	-.09796	-.00890	-.00268	.09450
	GRADIENT	.12066	.01341	.00554	.00760	.00716

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 173/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
14.980	2.042	-.82644	-.14750	-.02605	-.02258	.08008
14.840	4.390	-.47262	-.10990	-.01551	-.01151	.08437
	GRADIENT	.15071	.01601	.00449	.00471	.00183

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 174/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
30.168	1.994	-1.00745	-.23644	-.02132	-.01891	.08785
29.810	4.397	-.57336	-.18003	-.00434	-.00867	.09877
	GRADIENT	.18067	.02348	.00707	.00426	.00454

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

REFERENCE DATA  
 SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC GRADIENT = .000 DX = 20.000  
 SCALE = .0125

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) PARAMETRIC DATA  
 RUN NO. 175/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 44.854 ALPHAC XZCP XYCP CPCC CPSBI CPSB2  
 45.244 2.109 -.99533 -.22912 -.01048 -.00994 .09738  
 GRADIENT .16938 -.18141 -.00897 -.00572 .09861  
 .02067 .00065 .00183 .00053

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) PARAMETRIC DATA  
 RUN NO. 176/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 50.344 ALPHAC XZCP XYCP CPCC CPSBI CPSB2  
 50.595 2.118 -1.02516 -.24060 -.01703 -.01054 .09855  
 GRADIENT .18016 -.18506 -.00713 -.00172 .10212  
 .02486 .00443 .00395 .00160

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) PARAMETRIC DATA  
 RUN NO. 181/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 3.378 ALPHAC XZCP XYCP CPCC CPSBI CPSB2  
 3.590 2.472 -.91683 -1.07678 -.00319 -.01158 .09318  
 GRADIENT .17722 -.57410 -1.37601 -.00519 -.00734 .08657  
 .17722 -.15473 -.00103 .00219 -.00342

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) PARAMETRIC DATA  
 RUN NO. 182/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 7.711 ALPHAC XZCP XYCP CPCC CPSBI CPSB2  
 7.202 2.009 -1.07566 -.84023 -.02383 -.02330 .08017  
 GRADIENT .20395 -.59244 -.92407 -.00976 -.00786 .08602  
 .20395 .00594 .00652 .00331

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) PARAMETRIC DATA  
 RUN NO. 183/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ 9.911 ALPHAC XZCP XYCP CPCC CPSBI CPSB2  
 10.102 2.005 -1.08423 -.73073 -.02371 -.01838 .08223  
 GRADIENT .19668 -.59844 -.80676 -.00806 -.00833 .08902  
 .19668 .00634 .00407 .00275

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(BNH018) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 184/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.973	2.102	-1.05427	-.69112	-.02530	-.02503	.08165
14.736	4.362	-.62419	-.55952	-.00724	-.00481	.09257
	GRADIENT	.19023	.05821	.00799	.00894	.00483

RUN NO. 185/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.716	2.100	-1.09690	.10844	-.02053	-.01893	.08692
29.761	4.335	-.65690	2.68843	-.00266	.00031	.09993
	GRADIENT	.19689	1.15448	.00800	.00861	.00582

RUN NO. 186/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.733	1.972	-1.11721	.06150	-.01375	-.00996	.09235
44.656	4.308	-.65689	.23533	-.00314	.00172	.10189
	GRADIENT	.19705	.07441	.00454	.00500	.00408

RUN NO. 187/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
49.952	2.021	-1.08815	-.04628	-.00146	.00369	.10001
50.410	4.396	-.64227	.06918	-.00712	-.00062	.09625
	GRADIENT	.18775	.04862	-.00238	-.00182	-.00158

ARC 14-120(CA238) 747/1 AT1 0251 (CARRIER DATA) (BNH019) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 10RB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 191/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.491	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	7.844	2.405	-1.83511	-1.25239	-0.0855	-0.0774	.09425
		4.380	-0.50856	-2.70113	-0.0541	-0.0135	.08817
		GRADIENT	.16533	-0.73350	.00159	.00324	-0.00308

RUN NO. 192/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.818	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	9.759	2.116	-0.89973	-1.12523	-0.2108	-0.1814	.07901
		4.310	-0.52565	-2.84687	-0.0556	-0.0286	.08953
		GRADIENT	.16597	-0.78482	.00707	.00696	.00479

RUN NO. 193/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.864	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	15.018	1.964	-1.04783	-0.95070	-0.1471	-0.0271	.08367
		4.414	-0.56545	.60897	-0.0723	.00439	.09136
		GRADIENT	.19689	.63661	.00305	.00290	.00314

RUN NO. 194/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.225	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	30.125	2.014	-1.07022	-1.85045	-0.1578	-0.1712	.08338
		4.404	-0.61789	-1.07730	.00034	-0.0209	.09349
		GRADIENT	.18928	.32352	.00675	.00629	.00423

RUN NO. 195/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.421	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	45.079	2.014	-1.05983	.44562	-0.1453	-0.1267	.08635
		4.380	-0.64145	.48005	-0.0825	-0.0585	.09034
		GRADIENT	.17681	.01459	.00265	.00288	.00168

RUN NO. 196/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.290	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	50.279	2.002	-1.05597	.16031	-0.0264	-0.0345	.09681
		4.323	-0.64695	.20398	-0.0184	.00302	.09797
		GRADIENT	.17617	.01881	.00035	.00279	.00050

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ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(BNH020) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BRP = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
2.999	.056	-19.53650	-.18658	-.01469	-.01766	.09625
2.972	2.231	-1.27100	-.15924	-.03064	-.03038	.06764
3.376	4.258	-.76012	-.11799	-.00844	-.01978	.07771
	GRADIENT	4.51668	.01628	.00138	-.00057	-.00452

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.356	-.232	29.51460	-.20024	-.02115	-.01845	.09708
7.305	2.422	-1.19287	-.15367	-.01375	-.01186	.08537
7.176	4.286	-.74633	-.12345	-.01226	-.01659	.07668
	GRADIENT	-7.02760	.01703	.00202	.00055	-.00451

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.998	-.190	424.47900	-.19768	-.03292	-.03398	.07897
9.822	2.393	-1.16102	-.15013	-.01387	-.01709	.08753
9.715	4.416	-.73602	-.12012	-.01398	-.01023	.08176
	GRADIENT	-95.60566	.01691	.00426	.00522	.00082

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.608	-.076	-8.55418	-.19928	-.01558	-.01100	.09652
14.941	2.433	-1.11882	-.15441	-.01651	-.01327	.09307
14.567	4.425	-.72178	-.11973	-.00343	-.00370	.08947
	GRADIENT	1.79206	.01768	.00257	.00151	-.00156

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.742	-.160	-7.33200	-.23432	-.02978	-.02366	.08292
29.812	2.421	-1.05010	-.18907	-.01565	-.00757	.09597
29.770	4.475	-.69194	-.15206	-.01159	-.01051	.08779
	GRADIENT	1.47485	.01774	.00399	.00298	.00122

(BNH020) ( 21 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC GRADIENT = -5.00/ 5.00 DY = .000 DX = .000  
 SCALE = .0125

PARAMETRIC DATA

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCS	CPSB1	CPSB2
44.518	-.106	-5.04471	-.25422	-.03040	-.02020	.08019
44.662	2.474	-.98835	-.19360	-.00771	.00092	.09697
44.473	4.486	-.86643	-.16197	-.00559	-.00018	.09771
	GRADIENT	.98177	.02025	.00556	.00454	.00394

(BNH021) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC GRADIENT = -5.00/ 5.00 DY = .000 DX = .000  
 SCALE = .0125

PARAMETRIC DATA

RUN NO. 211/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCS	CPSB1	CPSB2
3.110	.173	-1.87063	-.15904	-.02533	-.02347	.08738
3.078	2.255	-.75764	-.11077	-.02997	-.02997	.07465
3.099	4.353	.16061	-.09026	-.04100	-.03808	.05235
	GRADIENT	.48493	.01645	-.00375	-.00350	-.00838

(BNH022) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC GRADIENT = -5.00/ 5.00 DY = .000 DX = .000  
 SCALE = .0125

PARAMETRIC DATA

RUN NO. 212/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCS	CPSB1	CPSB2
7.673	-.126	-1.53443	-.17240	-.03216	-.02465	.08256
7.105	2.399	.54906	-.10796	-.02652	-.02759	.07643
7.181	4.355	.13664	-.09103	-.02837	-.02543	.06975
	GRADIENT	.39433	.01851	.00091	-.00022	-.00284

(BNH023) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC GRADIENT = -5.00/ 5.00 DY = .000 DX = .000  
 SCALE = .0125

PARAMETRIC DATA

RUN NO. 213/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCS	CPSB1	CPSB2
9.888	-.253	-1.44412	-.17348	-.04185	-.03310	.07051
10.133	2.398	.53437	-.10304	-.03890	-.03864	.06113
9.989	4.413	.12464	-.08345	-.03730	-.03016	.05626
	GRADIENT	.35721	.01967	.00098	.00049	-.00308

ARC 14-120(CA238) 747/1 ATI 02S1 (CARRIER DATA)

(BNH021) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 214/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.808	-.052	-2.23886	-.16265	-.03690	-.02473	.07239
14.795	2.452	.48330	-.09790	-.02962	-.01439	.08285
14.946	4.403	.11845	-.07820	-.02192	-.01471	.07530
	GRADIENT	.55492	.01928	.00334	.00233	.00082

RUN NO. 215/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.743	-.137	-2.32324	-.19136	-.03722	-.02184	.06935
29.755	2.487	.40010	-.11689	-.02828	-.01438	.07735
29.747	4.402	.10068	-.09604	-.02538	-.00901	.07254
	GRADIENT	.56409	.02144	.00266	.00283	.00084

RUN NO. 216/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.609	-.114	-3.17111	-.18086	-.03496	-.01799	.06584
44.499	2.547	.35489	-.11347	-.02368	-.00839	.07552
44.744	4.315	.10226	-.09823	-.02237	-.00174	.07569
	GRADIENT	.78578	.01919	.00296	.00366	.00234

ARC 14-120(CA238) 747/1 ATI 02S1 (CARRIER DATA)

(BNH022) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 221/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.175	.180	3.93532	-.10786	-.01035	-.00414	.09710
7.048	2.374	-1.01301	-.07809	-.01230	-.00770	.08811
7.827	4.374	-.58146	-.06478	-.00678	-.00407	.08877
	GRADIENT	-1.09602	.01033	.00082	-.00001	-.00202



ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(8NH022) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN. ZC

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 222/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
10.008	-.095	3.21821	-.15102	-.00950	.00050	.09343
9.794	2.462	-1.01232	-.11077	-.00734	.00372	.09225
10.168	4.329	-.61690	-.06919	-.00700	.00487	.08825
	GRADIENT	-.91371	.01833	.00058	.00100	-.00113

RUN NO. 223/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
14.875	-.131	5.00195	-.11280	-.02103	-.01515	.07445
15.107	2.479	-1.02708	-.08417	-.02550	-.01720	.06640
14.650	4.467	-.64495	-.06799	-.00624	-.00516	.09288
	GRADIENT	-1.28309	.00981	.00296	.00202	.00365

RUN NO. 224/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
29.663	-.130	-62.50340	-.17571	-.02369	-.01227	.07804
30.014	2.540	-1.01105	-.14065	-.01043	-.01016	.08669
30.212	4.360	-.68118	-.11961	-.00882	-.00048	.08909
	GRADIENT	14.45494	.01254	.00343	.00249	.00252

RUN NO. 225/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
44.608	-.097	-8.17365	-.22545	-.01080	-.01215	.09184
44.758	2.520	-.98567	-.18461	-.00996	-.00700	.09602
44.921	4.300	-.67928	-.15080	-.00001	.00026	.10687
	GRADIENT	1.78201	.01687	.00230	.00276	.00328

RUN NO. 226/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
50.329	-.122	-7.97086	-.23660	-.00933	-.01068	.09458
50.199	2.456	-1.02047	-.18702	-.01587	-.01322	.08625
50.308	4.443	-.66630	-.14936	-.00381	-.00381	.09752
	GRADIENT	1.65324	.01912	.00103	.00138	.00046

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(BNH023) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 231/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.160	.028	5.50461	-.08901	-.01945	-.01702	.09443
3.398	2.478	-1.09957	-.07922	-.01633	-.01120	.08360
3.235	4.342	-.67214	-.07230	-.01476	-.01179	.07872
	GRADIENT	-1.49628	.00388	.00110	.00127	-.00368

RUN NO. 232/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.044	-.157	4.90354	-.11877	-.02953	-.02712	.07923
7.210	2.438	-1.13960	-.08470	-.02281	-.02148	.07248
7.208	4.444	-.69168	-.06153	-.01648	-.01243	.08576
	GRADIENT	-1.26930	.01247	.00282	.00314	.00123

RUN NO. 233/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.588	-.079	10.92820	-.12775	-.01959	-.01455	.09205
9.981	2.449	-1.12885	-.08455	-.02179	-.02019	.07897
9.714	4.418	-.68891	-.05790	-.00986	-.00959	.08532
	GRADIENT	-2.68460	.01561	.00205	.00095	-.00167

RUN NO. 234/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.480	-.060	756.97800	-.13452	-.02243	-.02163	.08628
14.703	2.510	-1.06852	-.07906	-.01807	-.01105	.09291
14.839	4.425	-.70219	-.06118	-.01242	-.01000	.08660
	GRADIENT	-175.92086	.01664	.00220	.00268	.00021

RUN NO. 235/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.767	-.083	-9.32822	-.21972	-.01074	-.01290	.09535
29.743	2.454	-1.08270	-.15928	-.01825	-.01905	.08333
29.929	4.441	-.69123	-.12691	-.01043	-.00234	.09417
	GRADIENT	1.96970	.02066	-.00007	.00212	-.00046

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (BNH023) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 236/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
44.538	-.030	-5.47442	-.22124	-.01462	-.01165	.09273
44.541	2.408	-1.03454	-.19355	-.00822	-.00472	.10132
44.965	4.398	-.68017	-.15102	-.00589	.00058	.10096
	GRADIENT	1.111030	.01570	.00200	.00277	.00192

RUN NO. 237/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
49.951	-.140	-7.44901	-.23807	-.02499	-.02472	.08227
49.970	2.539	-1.00752	-.18973	-.00796	.00551	.09549
50.050	4.426	-.68152	-.14695	-.01690	-.00173	.07836
	GRADIENT	1.54403	.01982	.00208	.00546	-.00047

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (BNH024) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RUN NO. 241/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
2.790	.104	-1.78359	-.15532	-.03304	-.02520	.07880
3.147	2.378	1.45082	-.11700	-.02431	-.01487	.07709
3.235	4.382	.39573	-.08353	-.02060	-.01225	.07176
	GRADIENT	.52970	.01678	.00293	.00306	-.00163

RUN NO. 242/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
7.214	-.107	-1.76884	-.17317	-.02419	-.02069	.08474
7.169	2.445	1.10658	-.11292	-.02199	-.01444	.07915
7.223	4.433	.31729	-.08027	-.02412	-.01603	.07398
	GRADIENT	.49046	.02061	.00006	.00109	-.00236

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

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ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(BNH024) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 243/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.900	-.036	-1.99741	-.15772	-.03522	-.03282	.07315
9.833	2.466	.94164	-.09887	-.02160	-.01809	.08048
9.797	4.354	.29796	-.07629	-.02169	-.01199	.08072
	GRADIENT	.55726	.01881	.00321	.00481	.00179

RUN NO. 244/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.827	-.163	-1.81369	-.17957	-.02371	-.01751	.08815
14.725	2.499	.75956	-.08593	-.02295	1.08076	.08089
14.404	4.287	.25688	-.07395	-.02255	-.01771	.07738
	GRADIENT	.50412	.02462	.00026	.03188	-.00244

RUN NO. 245/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.598	-.049	-2.63965	-.19255	-.03045	-.02459	.07439
29.897	2.432	.60676	-.11895	-.02158	-.01484	.08643
29.731	4.487	.16738	-.10638	-.01734	-.01222	.08342
	GRADIENT	.64241	.01936	.00291	.00277	.00209

RUN NO. 246/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.528	-.131	-2.67912	-.20751	-.03385	-.02769	.06538
44.796	2.390	.51563	-.13211	-.03345	-.02382	.07277
44.981	4.445	.13994	-.11737	-.01759	-.00951	.08485
	GRADIENT	.64035	.02008	.00343	.00368	.00421

RUN NO. 247/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
49.996	-.101	-3.01015	-.20432	-.02199	-.01550	.08465
50.084	2.534	.44612	-.13383	-.02088	-.01223	.08500
50.059	4.394	.13942	-.11363	-.01725	-.00621	.09135
	GRADIENT	.74147	.02061	.00101	.00201	.00140

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) (BNH025) ( 21 OC1 75 )

REFERENCE DATA

SREF = 5500.0000 SQ. FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.209	.039	-1.78105	-.23600	-.03005	-.02819	.07595
7.216	2.367	2.41183	-.13423	-.02821	-.02396	.07223
7.326	4.353	.66042	-.11131	-.01379	-.01002	.08261
	GRADIENT	.60093	.02932	.00368	.00414	.00145

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.339	-.027	-1.88371	-.24066	-.02724	-.02591	.07939
10.040	2.372	2.24724	-.13669	-.02486	-.02274	.07260
10.061	4.478	.52776	-.10937	-.01280	-.00660	.08335
	GRADIENT	.56255	.02947	.00315	.00422	.00079

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.643	-.013	-1.95889	-.20999	-.02337	-.01474	.09074
15.082	2.543	1.26649	-.12110	-.01317	-.00646	.09072
14.801	4.374	.44678	-.07008	-.02446	-.01594	.07887
	GRADIENT	.59373	.03208	.00002	-.00005	-.00253

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.827	-.162	-1.95231	-.20395	-.03064	-.02451	.07568
30.228	2.450	.89424	-.12157	-.02501	-.01917	.07826
30.232	4.437	.27080	-.09429	-.00867	-.00141	.09318
	GRADIENT	.51436	.02424	.00464	.00487	.00366

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.600	-.132	-2.24688	-.22274	-.02218	-.01554	.07997
45.018	2.364	.68702	-.14246	-.01074	-.00617	.08639
44.806	4.412	.20692	-.11712	-.01346	-.00082	.09249
	GRADIENT	.56279	.02356	.00201	.00326	.00275

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (BNH025) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
49.823	-.233	-2.10859	-.24351	-.03150	-.02564	.07466
50.763	2.449	.59874	-.13423	-.01778	-.00729	.09412
50.761	4.339	.19829	-.12098	-.01509	-.00269	.09115
	GRADIENT	.53840	.02773	.00369	.00514	.00385

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA) (BNH027) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 261/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.310	.046	2.81625	-.15101	.00550	-.00467	.12094
7.309	2.283	-.93545	-.10833	-.00233	-.00557	.10265
7.865	4.288	-.55880	-.07727	.01148	.00792	.11388
	GRADIENT	-.81250	.01741	.00131	.00290	-.00179

RUN NO. 262/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.835	-.171	2.36552	-.15464	.00031	-.00916	.11100
9.901	2.437	-.93834	-.10613	.00993	.01130	.11735
9.652	4.384	-.58432	-.07749	.01147	.01010	.11599
	GRADIENT	-.68173	.01703	.00252	.00443	.00117

RUN NO. 263/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.936	-.143	4.83274	-.17269	.00294	-.00762	.11475
14.980	2.462	-.97420	-.15223	.01366	.00929	.12011
15.447	4.479	-.61514	-.10669	.01589	.01342	.11491
	GRADIENT	-1.22854	.01397	.00286	.00464	.00013

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA) (BNH027) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = 79.83991 .02051 .00387 .00386 .00136 MACH = .600

RUN NO. 264/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.711	-.161	-346.52800	-.21795	-.00255	-.00201	.11073
29.841	2.529	-.99826	-.17136	.00990	.01210	.11742
30.092	4.385	-.66176	-.12362	.01479	.01507	.11653
	GRADIENT	79.83991	.02051	.00387	.00386	.00136

RUN NO. 265/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.673	-.113	-6.56277	-.24445	.00703	.01335	.11614
44.791	2.534	-.96538	-.20722	.01021	.01624	.12292
44.852	4.379	-.66088	-.15996	.01128	.01100	.11793
	GRADIENT	1.36951	.01848	.00096	-.00041	.00055

RUN NO. 266/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
50.205	-.137	-14.25580	-.26803	-.00489	-.00544	.10803
50.115	2.437	-1.00704	-.20977	.00974	.01166	.12035
50.310	4.427	-.65110	-.16288	.01254	.02024	.11980
	GRADIENT	3.08444	.02302	.00391	.00568	.00269

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA) (BNH028) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = 6.000 DX = 10.000  
 SCALE = .0125 GRADIENT = 79.83991 .02051 .00387 .00386 .00136 MACH = .600

RUN NO. 281/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.140	2.460	-.99617	-.14768	-.00121	-.00997	.10383
3.154	4.481	-.60471	-.11417	.00052	-.00385	.09972
	GRADIENT	.19365	.01658	.00086	.00302	-.00204

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA) (8NH028) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORR = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 282/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.424	2.022	-1.17575	-1.13505	-.00866	-.01244	.09194
7.204	4.410	-.63895	-.09219	.00777	.10767	
	GRADIENT	.22481	.01795	.00688	.00572	.00658

RUN NO. 283/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.851	2.068	-1.15202	-.11862	-.09910	-.01695	.09128
9.970	4.488	-.64484	-.07425	-.00016	-.00564	.10230
	GRADIENT	.20964	.01834	.00370	.00467	.00455

RUN NO. 284/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.671	2.026	-1.17026	-.09561	-.01184	-.01562	.09874
14.337	4.481	-.66051	-.05374	.00625	.00269	.10751
	GRADIENT	.20764	.01705	.00737	.00746	.00358

RUN NO. 285/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.878	2.180	-1.11512	-.18153	-.00712	-.00658	.10059
29.674	4.515	-.65562	-.13171	.01052	.01462	.11875
	GRADIENT	.19248	.02134	.00755	.00908	.00760

RUN NO. 286/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.780	2.093	-1.12746	-.21252	-.00726	.00140	.10340
45.100	4.521	-.66202	-.16250	.00603	.00987	.11074
	GRADIENT	.19168	.02060	.00547	.00349	.00302

RUN NO. 287/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
50.200	2.061	-1.11633	-.21048	-.00843	.00160	.10382
50.258	4.539	-.64534	-.15507	.01036	.01420	.11355
	GRADIENT	.19004	.02236	.00758	.00508	.00393



REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 291/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.274	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	7.616	2.465	-.83163	-.13090	.00471	.00307	-.11391
		4.442	-.50502	-.09961	.00666	.00502	.10945
		GRADIENT	.16515	.01582	.00099	.00099	-.00226

RUN NO. 292/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	10.037	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	10.105	2.057	-.99557	-.13625	.00106	-.00167	.10720
		4.486	-.53530	-.08615	.01053	.01135	.11276
		GRADIENT	.18945	.02062	.00390	.00536	.00229

RUN NO. 293/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	15.073	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	14.864	2.020	-1.06976	-.10094	-.00562	-.00670	.10437
		4.412	-.58850	-.06392	.00900	.00955	.11265
		GRADIENT	.20116	.01547	.00611	.00679	.00346

RUN NO. 294/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.231	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	29.953	2.128	-1.07242	-.15430	-.00183	.00168	.10526
		4.510	-.63370	-.11757	.01000	.01572	.11908
		GRADIENT	.18422	.01543	.00497	.00590	.00580

RUN NO. 295/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.559	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	45.001	2.087	-1.09723	-.20739	-.00088	.00478	.10707
		4.446	-.64516	-.16162	.01577	.01659	.12086
		GRADIENT	.19162	.01940	.00706	.00501	.00584

RUN NO. 296/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.108	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	50.709	2.027	-1.11875	-.21725	-.00261	.00659	.10831
		4.547	-.64030	-.15564	.01296	.01871	.12081
		GRADIENT	.18986	.02445	.00618	.00481	.00495

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA) (BNH030) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 301/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.146	2.474	-.78822	-.14444	-.00773	-.00828	.09771
7.541	4.355	-.48451	-.11168	-.00014	.00700	.10630
	GRADIENT	.16155	.01743	.00404	.00813	.00457

RUN NO. 302/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
10.020	2.021	-.93859	-.13993	-.01060	-.0655	.09346
10.077	4.495	-.51312	-.09978	.00269	.00790	.10735
	GRADIENT	.17198	.01623	.00537	.00584	.00561

RUN NO. 303/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.887	2.172	-.97686	-.12097	-.01607	-.00605	.09578
14.608	4.441	-.56737	-.08291	.00635	.01511	.11175
	GRADIENT	.18052	.01678	.00989	.00933	.00704

RUN NO. 304/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
30.123	1.934	-1.14764	-.17881	-.00644	.00221	.10464
29.781	4.549	-.61373	-.12295	.00438	.01455	.11080
	GRADIENT	.20416	.02136	.00414	.00472	.00236

RUN NO. 305/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.889	2.080	-1.06362	-.21347	-.01036	-.00254	.10527
44.724	4.413	-.65646	-.16513	-.00401	.00436	.10431
	GRADIENT	.17454	.02072	.00272	.00296	-.00041

RUN NO. 306/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
50.425	2.667	-1.10385	-.22676	-.00560	.00304	.10730
50.408	4.416	-.64212	-.16605	.01181	.01809	.12507
	GRADIENT	.19659	.02585	.00741	.00641	.00756

ARC 14-120(CA238) 747/1 ATI 0351 (CARRIER DATA)

(BNH031) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN. ZC

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 311/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.139	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	7.034	2.440	-1.03707	-.14435	-.01910	-.02262	.08518
		4.374	-.62873	-.09866	-.00444	-.00198	.09964
		GRADIENT	.21109	.02362	.00758	.01067	.00747

RUN NO. 312/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.707	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	9.890	1.989	-1.17571	-.14199	-.00350	-.00322	.10381
		4.549	-.61824	-.08005	.00022	.00076	.10297
		GRADIENT	.21773	.02419	.00145	.00156	-.00033

RUN NO. 313/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.857	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	14.654	1.961	-1.22118	-.11827	-.01508	-.01373	.09113
		4.524	-.63939	-.06896	.00146	.00584	.10324
		GRADIENT	.22700	.01924	.00645	.00763	.00472

RUN NO. 314/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.665	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	29.802	1.982	-1.19739	-.19239	-.00558	-.01105	.11423
		4.262	-.69146	-.13820	.00303	.01014	.11318
		GRADIENT	.22189	.02376	-.00112	-.00040	-.00046

RUN NO. 315/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.676	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	44.732	1.970	-1.15241	-.21325	-.00899	-.00116	.10041
		4.370	-.67461	-.16413	.01297	.01680	.11883
		GRADIENT	.19912	.02047	.00915	.00748	.00768

RUN NO. 316/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.207	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
	50.098	2.003	-1.15364	-.21083	.00181	.00646	.11778
		4.371	-.67208	-.16084	.01105	.01734	.11681
		GRADIENT	.20333	.02111	.00390	.00459	-.00041

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA) (BNH032) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORR = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO.	321/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00										
DZ	3.217	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2						
	3.310	2.384	-1.14867	-1.23298	.00513	-.00145	.10601						
		4.324	-.68697	-1.69440	.01128	-.00046	1.38689						
		GRADIENT	.23794	-.23779	.00317	.00051	.66010						
RUN NO.	322/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00										
DZ	7.247	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2						
	7.563	1.999	-1.26345	-.83811	.00915	.00013	.11220						
		4.379	-.68840	-1.04181	.00679	-.00333	.10255						
		GRADIENT	.24154	-.08556	-.00099	-.00145	-.00405						
RUN NO.	323/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00										
DZ	10.032	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2						
	9.896	1.980	-1.29376	-.66350	.00523	-.00241	.11576						
		4.367	-.69781	-.82049	-.00167	-.00868	.09308						
		GRADIENT	.24967	-.06577	-.00289	-.00263	-.00950						
RUN NO.	324/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00										
DZ	15.217	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2						
	15.047	2.049	-1.23106	-.43953	.00861	.00396	.11296						
		4.348	-.71261	.01407	.00978	.01087	.10964						
		GRADIENT	.23568	.20621	.00053	.00314	-.00151						
RUN NO.	325/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00										
DZ	29.998	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2						
	29.890	1.976	-1.19367	-.00277	-.00707	-.00194	.10230						
		4.301	-.69939	.52606	.00697	.01025	.10990						
		GRADIENT	.21255	.22741	.00604	.00524	.00327						
RUN NO.	326/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00										
DZ	44.648	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2						
	44.989	1.958	-1.16598	-.07546	.00476	.00722	.11426						
		4.325	-.68504	.04575	.00804	.00995	.11238						
		GRADIENT	.20321	.05121	.00138	.00115	-.00079						

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA) (BNH032) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .19411

PARAMETRIC DATA

RUN NO. 327/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 OZ ALPHAC XZCP XYCP CPCC CPSB1 CPSB2  
 49.978 1.369 -1.13946 -1.0200 -0.0072 -0.00320 .10182  
 50.163 4.264 -69398 -.01323 .00024 .00171 .10423  
 GRADIENT .19411 .03868 .00347

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA) (BNH033) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .21000

PARAMETRIC DATA

RUN NO. 331/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 OZ ALPHAC XZCP XYCP CPCC CPSB1 CPSB2  
 7.500 2.446 -1.02465 -1.68195 -0.0762 -0.0762 .11092  
 7.613 4.292 -63712 -.77010 .01024 .01188 .10282  
 GRADIENT .21000 1.32878 -.00108 .00231 -.00439

RUN NO. 332/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ ALPHAC XZCP XYCP CPCC CPSB1 CPSB2  
 10.263 1.907 -1.32293 -1.33179 .01014 .00960 .11619  
 9.859 4.322 -63921 .03190 .00733 .00924 .10494  
 GRADIENT .28310 .56465 -.00116 -.00015 -.00466

RUN NO. 333/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ ALPHAC XZCP XYCP CPCC CPSB1 CPSB2  
 15.012 1.933 -1.27251 -.83282 -.00531 -.00611 .10220  
 14.957 4.327 -65605 -.52952 -.00501 -.00232 .09826  
 GRADIENT .25749 .12669 .00013 .00159 -.00165

RUN NO. 334/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ ALPHAC XZCP XYCP CPCC CPSB1 CPSB2  
 29.834 1.958 -1.21535 1.50091 .00637 .01017 .11410  
 29.957 4.362 -66902 -2.65233 -.01197 .01686 .11389  
 GRADIENT .22723 -1.72740 .00233 .00278 -.00008

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(BNH033) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 335/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.819	1.871	-1.18809	.08823	-.00839	-.00190	.10303
45.000	4.278	-.68263	.23419	.01013	.01287	.11475
	GRADIENT	.21005	.06066	.00769	.00614	.00487

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 336/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
50.002	1.913	-1.18214	-.04751	.00887	.01460	.12130
50.443	4.260	-.68277	.07171	.01012	.01559	.11725
	GRADIENT	.21273	.05079	.00053	.00042	-.00173

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(BNH034) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RUN NO. 341/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
1.515	-.031	2.51092	-.24921	.00664	-.00541	.11953
1.466	2.266	-1.16419	-.20461	.00293	-.00527	.10428
1.364	4.259	-.67431	-.17471	-.00394	-.00987	.08881
	GRADIENT	-.76421	.01742	-.00245	-.00101	-.00715

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 342/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.218	-.127	2.57828	-.28033	.01082	-.00472	.12153
2.877	2.324	-1.14453	-.20975	.01292	.00036	.11170
3.380	4.353	-.67451	-.17420	.00804	-.00234	.09629
	GRADIENT	-.75323	.02386	-.00057	.00058	-.00558

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.92654 MACH = .600

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 TORB = 6.000  
 DY = .000

RUN NO. 343/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
7.400	-.285	3.24316	-.25600	-.00809	-.01539	.10858
7.390	2.312	-1.14957	-.19509	.00827	-.00376	.11081
7.046	4.212	-.70670	-.15669	.00757	.00294	.10712
	GRADIENT	-.92654	.02217	.00365	.00410	-.00025

RUN NO. 344/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
9.858	-.243	4.64369	-.24912	-.00412	-.01032	.10815
9.870	2.334	-1.15481	-.19217	.00837	-.00502	.10866
9.840	4.253	-.70876	-.14218	.00707	.00079	.10591
	GRADIENT	-1.24944	.02369	.00262	.00245	-.00046

RUN NO. 345/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
14.745	-.254	6.21326	-.22494	-.00658	-.00685	.10771
14.663	2.332	-1.12412	-.15431	.00523	-.00216	.11275
14.715	4.248	-.70779	-.10864	.00719	.00064	.10659
	GRADIENT	-1.61091	.02592	.00314	.00167	-.00012

RUN NO. 346/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
29.743	-.267	60.85520	-.23485	.00107	.00135	.11895
29.911	2.360	-1.07952	-.19217	.00630	.00767	.11603
29.627	4.268	-.70237	-.13699	.00693	.00665	.11312
	GRADIENT	-14.18202	.02125	.00133	.00124	-.00127

RUN NO. 347/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
44.607	-.235	-12.13530	-.25015	.00263	.00591	.11561
44.784	2.345	-1.04204	-.22226	.00944	.01218	.12210
44.631	4.291	-.68888	-.17463	-.00537	-.00051	.10437
	GRADIENT	2.62290	.01637	-.00153	-.00122	-.00222

ARC 14-120(CA238) 747/1 ATI 0351 (CARRIER DATA)

(BNH034) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 348/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
49.960	-.239	-12.55280	-.27066	.01302	.01329	.11854
50.084	2.361	-1.04145	-.21149	.00920	.01247	.11818
50.051	4.269	-.68776	-.16914	.00929	.01148	.11269
	GRADIENT	2.73696	.02253	-.00086	-.00040	-.00123

RUN NO. 349/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
61.655	-.279	-11.52990	-.27732	.00846	.01228	.12087
61.629	2.289	-1.03663	-.20577	.00830	.01157	.11773
61.640	4.275	-.67977	-.15842	.01006	.01060	.11566
	GRADIENT	2.46424	.02620	.00033	-.00036	-.00115

ARC 14-120(CA238) 747/1 ATI 0351 (CARRIER DATA)

(BNH035) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 351/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
3.392	.007	164.01700	-.17766	-.01203	-.01908	.09228
3.273	2.270	-1.25836	-.14253	-.01701	-.02208	.07109
3.233	4.244	-.75960	-.09689	-.01876	-.02170	.06451
	GRADIENT	-39.71856	.01898	-.00160	-.00064	-.00662

RUN NO. 352/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
7.633	-.212	37.00720	-.18709	-.01995	-.03253	.08664
7.582	2.387	-1.17041	-.13338	-.00581	-.01257	.08779
7.362	4.282	-.75083	-.09257	-.00383	-.01060	.08167
	GRADIENT	-8.77880	.02101	.00370	.00505	-.00101



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TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA) (BNH035) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 353/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.664	-.213	-700.68500	-.19502	-.00364	-.01147	.10635
9.916	2.313	-1.16429	-.12729	-.00290	-.01234	.09669
9.803	4.259	-74429	-.08342	.00056	-.00457	.08777
	GRADIENT	162.35378	.02505	.00091	.00145	-.00414

RUN NO. 354/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
15.113	-.270	-92.81610	-.16820	-.01907	-.02627	.09531
14.808	2.324	-1.12704	-.10567	-.00963	-.01476	.09485
14.693	4.304	-72841	-.07369	-.01748	-.02388	.07237
	GRADIENT	20.90085	.02084	.00051	.00072	-.00477

RUN NO. 355/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.891	-.272	-14.91500	-.22740	-.01575	-.02133	.08892
29.979	2.346	-1.07645	-.17974	-.00324	-.00729	.10399
29.891	4.294	-70249	-.13502	-.00128	-.00451	.09869
	GRADIENT	3.23404	.02012	.00326	.00378	.00234

RUN NO. 356/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.449	-.271	-7.84328	-.23974	-.02416	-.02309	.08812
44.799	2.322	-1.07270	-.18637	-.01029	-.00921	.09855
44.865	4.260	-69762	-.14837	.00265	-.00140	.09939
	GRADIENT	1.63355	.02019	.00588	.00482	.00257

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(BNH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SO.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN. ZC

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 361/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
1.654	2.302	-1.14169	-4.9859	-.02087	-.03101	.06905
2.469	4.194	-.68385	-4.6469	-.06608	-.01337	.08001
	GRADIENT	.24199	.01792	.00782	.00932	.00579

RUN NO. 362/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
2.877	2.012	-1.23931	-5.1020	-.01401	-.02496	.07860
3.365	4.405	-.65527	-4.5550	-.00456	-.01674	.08091
	GRADIENT	.24411	.02286	.00395	.00344	.00097

RUN NO. 363/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.393	2.013	-1.21638	-5.0989	-.01897	-.02698	.08163
7.226	4.376	-.67040	-4.7570	-.00814	-.01653	.07960
	GRADIENT	.23105	.01447	.00459	.00442	-.00086

RUN NO. 364/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.858	2.049	-1.18023	-5.1373	-.01709	-.02727	.08365
10.104	4.457	-.66621	-4.7412	-.00247	-.01141	.08745
	GRADIENT	.21344	.01645	.00607	.00659	.00158

RUN NO. 365/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.553	2.097	-1.14245	-5.1440	-.01816	-.03074	.08360
14.643	4.474	-.66153	-4.7149	-.01627	-.02163	.07586
	GRADIENT	.20231	.01805	.00079	.00383	-.00326

RUN NO. 366/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.819	2.159	-1.06316	-5.2173	-.01907	-.02443	.08631
29.992	4.411	-.66163	-4.8221	-.00091	-.00770	.09280
	GRADIENT	.17836	.01756	.00806	.00743	.00288

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA) (BNH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 367/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
45.057	2.052	-1.10125	-52932	-01712	-02303	.08681
44.937	4.371	-.67327	-47958	.00013	-.00880	.10027
	GRADIENT	.18454	.02145	.00744	.00614	.00580

RUN NO. 368/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
50.129	2.015	-1.14599	-.53569	-.01688	-.02279	.08757
50.420	4.439	-.64462	-47697	-.00296	-.00705	.10050
	GRADIENT	.20681	.02422	.00574	.00649	.00534

RUN NO. 369/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
62.057	2.140	-1.02573	-.51827	-.01557	-.00215	.07892
61.853	4.416	-.65643	-47569	-.01056	.00116	.10003
	GRADIENT	.16220	.01870	.00220	.00145	.00927

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA) (BNH037) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 371/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
1.955	.521	-2.94599	-.18508	-.02881	-.04126	.06207
1.879	2.297	1.81194	-.12834	-.02718	-.04308	.05788
1.932	4.335	.44568	-.08540	-.01551	-.02727	.06653
	GRADIENT	.85121	.02601	.00354	.00377	.00124

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(BNH037) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 372/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
3.611	-.073	-1.77135	-.21197	-.02868	-.03980	.06797
3.412	2.415	1.42633	-.11326	-.01431	-.02875	.07073
3.341	4.372	.40531	-.08503	-.01766	-.02596	.06423
	GRADIENT	.52495	.02905	.00262	.00317	-.00076

RUN NO. 373/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
7.238	-.184	-1.78509	-.18236	-.02480	-.03460	.07010
7.611	2.515	1.01363	-.09699	-.01353	-.02559	.07308
7.497	4.363	.34106	-.06457	-.01364	-.02464	.06741
	GRADIENT	.50936	.02633	.00258	.00227	-.00047

RUN NO. 374/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
10.003	-.096	-1.96877	-.16776	-.02205	-.02555	.08926
9.942	2.401	1.10677	-.07022	-.03157	-.03502	.06840
10.030	4.474	.29295	-.06214	-.02035	-.02869	.06975
	GRADIENT	.51976	.02365	.00023	-.00079	-.00441

RUN NO. 375/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
14.990	.036	-2.44757	-.12781	-.03110	-.03083	.07957
14.729	2.374	.96177	-.06054	-.03181	-.03154	.06681
14.795	4.458	.25681	-.03783	-.01901	-.01955	.07398
	GRADIENT	.62865	.02052	.00267	.00249	-.00135

RUN NO. 376/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
29.795	-.037	-2.76896	-.20160	-.03354	-.03195	.07599
29.929	2.359	.71669	-.13270	-.03219	-.03192	.06961
30.138	4.506	.17341	-.09510	-.01187	-.01670	.08207
	GRADIENT	.66325	.02355	.00469	.00329	.00126

ARC 14-120(CA238) 747/1 AT1 03S1 (CARRIER DATA) (BNH037) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .58084 DY = .000 MACH = .600

RUN NO. 377/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
45.027	-.096	-2.20770	-.23377	-.02966	-.02727	.07512
44.952	2.497	.49506	-.14491	-.01138	-.01191	.08931
44.914	4.260	.16022	-.12923	-.01603	-.01818	.08561
	GRADIENT	.58084	.02477	.00342	.00237	.00264

RUN NO. 378/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
50.481	.036	-4.00969	-.23368	-.03096	-.02990	.07363
50.592	2.316	.57429	-.14974	-.02074	-.01658	.08709
50.369	4.524	.13316	-.12874	-.01618	-.01915	.08278
	GRADIENT	.92891	.02345	.00330	.00241	.00206

RUN NO. 379/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
61.632	-.013	-4.35894	-.21753	-.03237	-.02998	.07182
61.965	2.379	.50479	-.14095	-.01648	-.01837	.08410
61.651	4.408	.13185	-.12582	-.02613	-.02480	.06966
	GRADIENT	1.04582	.02108	.00157	.00128	-.00032

ARC 14-120(CA238) 747/1 AT1 03S1 (CARRIER DATA) (BNH038) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.45766 DY = .000 MACH = .600

RUN NO. 381/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
1.603	.046	1.45142	-.24748	-.02193	-.02086	.10438
1.569	2.293	-.83623	-.18893	-.01769	-.01742	.09272
2.306	4.387	-.50517	-.17348	-.01149	-.01633	.09220
	GRADIENT	-.45766	.01716	.00240	.00105	-.00284

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ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA) (BNH038) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 50.FT.  
LREF = 327.7800 IN.  
BREF = 2348.0400 IN.  
SCALE = .0125

XMPP = 1339.9000 IN. XC  
YMRP = .0000 IN. YC  
ZMRP = 190.7500 IN. ZC

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
LORB = 6.000 DX = .000  
DY = .000 MACH = .600

RUN NO. 382/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.468	.019	1.96777	-.28775	-.02966	-.02781	.09199
3.699	2.422	-.84050	-.20870	-.01751	-.02154	.09279
3.469	4.425	-.52386	-.18270	-.01441	-.01172	.09483
	GRADIENT	-.58539	.02414	.00352	.00362	.00063

RUN NO. 383/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.736	-.027	3.32970	-.25028	-.03118	-.03118	.08877
6.902	2.422	-.87295	-.19849	-.01621	-.01810	.09745
7.339	4.419	-.55707	-.17718	-.01781	-.01998	.08710
	GRADIENT	-.90556	.01662	.00312	.00262	-.00023

RUN NO. 384/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
10.309	.047	7.61963	-.22687	-.03486	-.02901	.09322
9.703	2.409	-.90244	-.19481	-.01708	-.01816	.09632
10.031	4.489	-.56966	-.17389	-.01489	-.01651	.09090
	GRADIENT	-1.88313	.01196	.00457	.00285	-.00048

RUN NO. 385/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
15.037	-.141	3.23423	-.24969	-.03255	-.03122	.08754
14.856	2.495	-.91278	-.19340	-.01889	-.01619	.09661
14.876	4.418	-.60026	-.16619	-.01414	-.01279	.09433
	GRADIENT	-.88490	.01850	.00411	.00414	.00161

RUN NO. 386/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
30.304	-.165	-17.29290	-.25363	-.03054	-.02787	.08977
29.816	2.497	-.95607	-.20443	-.01630	-.01279	.09886
30.280	4.402	-.65588	-.16985	-.02100	-.02473	.08509
	GRADIENT	3.80243	.01836	.00230	.00101	-.00074

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TABLATED SOURCE DATA - CA23B

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(BNH039) ( 08 OCT 75 )

ARC 14-120(CA23B). 747/1 AT1 03S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 387/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
44.879	.070	-4.18970	-.23216	-.02715	-.03089	.09703
44.946	2.481	-.96982	-.19139	-.01762	-.01681	.10451
44.926	4.448	-.65011	-.16409	-.01390	-.01390	.10272
	GRADIENT	.82805	.01560	.00306	.00395	.00137

RUN NO. 388/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
49.971	-.037	-4.92873	-.23924	-.03211	-.03050	.08593
50.192	2.513	-.94454	-.19994	-.01885	-.01722	.10315
50.609	4.284	-.67468	-.16467	-.00969	-.01241	.10350
	GRADIENT	1.02499	.01713	.00519	.00426	.00425

RUN NO. 389/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
61.515	-.115	-9.00624	-.24393	-.03020	-.03235	.08493
60.520	2.529	-.95206	-.19812	-.02079	-.02025	.09444
	GRADIENT	3.04628	.01733	.00356	.00458	.00360

(BNH039) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 391/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
3.148	2.388	-.90506	-.46302	-.01866	-.03392	.07800
3.390	4.263	-.54587	-.44281	-.01043	-.02592	.07452
	GRADIENT	.19154	.01078	.00439	.00427	-.00186

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(BNH039) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 50.FT.  
LREF = 327.7800 IN.  
BREF = 2348.0400 IN.  
SCALE = .0125

XMRP = 1339.9000 IN. XC  
YMRP = .0000 IN. YC  
ZMRP = 190.7500 IN. ZC

BETA = .000 STAB = 5.000  
RUDDER = 10.000 ELEVON = 5.000  
LORB = 6.000 DX = .000  
DY = .000 MACH = .500

PARAMETRIC DATA

RUN NO. 392/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.312  
7.376  
ALPHAC 2.139  
4.461  
XZCP -1.00618  
XYCP -4.7651  
CPCP -.02831  
CPSB1 -.04393  
CPSB2 .06831  
GRADIENT -.56051  
.19197  
CPCP -.01575  
CPSB1 -.02888  
CPSB2 .07565  
GRADIENT .00541  
.00648  
CPCP -.03235  
CPSB1 -.00284  
CPSB2 -.00682

RUN NO. 393/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ 9.885  
10.083  
ALPHAC 2.001  
4.424  
XZCP -1.08046  
XYCP -4.8829  
CPCP -.01557  
CPSB1 -.02548  
CPSB2 .08615  
GRADIENT -.60489  
.19631  
CPCP -.01888  
CPSB1 -.03235  
CPSB2 .06963  
GRADIENT .01416  
-.00172  
CPCP -.00398  
CPSB1 -.00240  
CPSB2 -.00630

RUN NO. 394/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ 15.083  
14.830  
ALPHAC 2.141  
4.433  
XZCP -1.04924  
XYCP -4.9591  
CPCP -.01511  
CPSB1 -.03007  
CPSB2 .08666  
GRADIENT -.82086  
.18693  
CPCP -.02424  
CPSB1 -.03557  
CPSB2 .07223  
GRADIENT .01445  
-.00398  
CPCP -.00240  
CPSB1 -.00630

RUN NO. 395/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ 29.781  
29.790  
ALPHAC 2.045  
4.494  
XZCP -1.13126  
XYCP -5.0631  
CPCP -.01575  
CPSB1 -.02137  
CPSB2 .08774  
GRADIENT -.64080  
.20024  
CPCP -.00454  
CPSB1 -.01254  
CPSB2 .09125  
GRADIENT .01551  
.00458  
CPCP .00360  
CPSB1 .00143

RUN NO. 396/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ 44.565  
44.873  
ALPHAC 2.160  
4.367  
XZCP -1.05824  
XYCP -5.0327  
CPCP -.02924  
CPSB1 -.03003  
CPSB2 .07652  
GRADIENT -.66476  
.17825  
CPCP -.01751  
CPSB1 -.02305  
CPSB2 2.10101  
GRADIENT .01369  
.00531  
CPCP .00316  
CPSB1 .91710

RUN NO. 397/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ 50.286  
50.569  
ALPHAC 2.123  
4.396  
XZCP -1.07578  
XYCP -5.0835  
CPCP -.02461  
CPSB1 -.02672  
CPSB2 .08169  
GRADIENT -.66422  
.18107  
CPCP -.01722  
CPSB1 -.02118  
CPSB2 .08042  
GRADIENT .01695  
.00325  
CPCP .00244  
CPSB1 -.00056



ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) (BNH040) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .500

RUN NO. 401/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
3.048	-.004	6.81192	-.24448	-.02201	-.02878	.08545
3.021	2.318	-1.06919	-.22140	-.03423	-.03984	.06213
3.274	4.401	-.66173	-.18574	-.02026	-.02270	.07670
	GRADIENT	-1.72913	.01327	.00029	.00126	-.00214

RUN NO. 402/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
7.066	-.091	11.51960	-.26316	-.02063	-.02361	.09525
7.198	2.490	-1.02612	-.22881	-.01943	-.02132	.08412
7.335	4.405	-.67117	-.18566	-.03059	-.03299	.06193
	GRADIENT	-2.83228	.01702	-.00206	-.00192	-.00723

RUN NO. 403/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
9.793	.024	-37.22160	-.26275	-.02441	-.03036	.08871
9.766	2.449	-1.04920	-.22665	-.01913	-.01994	.08110
9.745	4.293	-.68871	-.18728	-.01704	-.02512	.07591
	GRADIENT	8.88333	.01754	.00175	.00138	-.00301

RUN NO. 404/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
14.781	-.155	12.07500	-.27966	-.03276	-.03730	.07418
14.685	2.568	-.98470	-.21586	-.01788	-.02031	.08235
14.592	4.303	-.69195	-.18237	-.02525	-.02845	.06636
	GRADIENT	-3.03545	.02197	.00202	.00236	-.00133

RUN NO. 405/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
29.804	-.120	-19.91820	-.24631	-.02548	-.02791	.08652
29.944	2.563	-.99420	-.19702	-.01662	-.01769	.08626
29.835	4.329	-.69584	-.15210	-.01706	-.01598	.08230
	GRADIENT	4.54461	.02095	.00201	.00277	-.00088

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ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(BNH040) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 406/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.515	-.091	-8.84545	-.23410	-.02950	-.03297	.07282
44.728	2.446	-1.02431	-.18946	-.01366	-.01609	.08558
44.671	4.476	-.66923	-.14233	-.01948	-.01651	.07945
	GRADIENT	1.84325	.01999	.00236	.00373	.00160

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .500

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(BNH041) ( 08 OCT 75 )

RUN NO. 411/ 0

RN/L = 2.97

GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.328	2.137	-1.15480	-.19080	-.02879	-.02734	.07289
3.325	4.298	-.66194	-.16938	-.02555	-.03350	.06335
	GRADIENT	.22807	.00991	.00150	-.00285	-.00442

RUN NO. 412/ 0

RN/L = 2.96

GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
6.838	2.085	-1.11233	-.20468	-.02770	-.02806	.07342
7.184	4.439	-.65947	-.16439	-.02638	-.03111	.06362
	GRADIENT	.19239	.01712	.00056	-.00129	-.00408

RUN NO. 413/ 0

RN/L = 2.98

GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
9.770	2.218	-1.07042	-.20276	-.02620	-.02438	.07686
9.780	4.469	-.66793	-.16504	-.02721	-.02649	.07125
	GRADIENT	.17875	.01675	-.00045	-.00093	-.00249

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) (BNH041) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC ELEVON = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC GRADIENT = .0125 GRADIENT = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .19751 GRADIENT = .01849 .00223 -.00019 DY = .000 MACH = .500

RUN NO. 414/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
14.789	1.386	-1.15883	-0.20394	-0.4863	-0.4398	.04939
14.819	4.441	-6.7103	-1.5856	-0.4174	-0.3852	.04893
	GRADIENT	.19751	.01849	.00281	.00223	-.00019

RUN NO. 415/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
29.638	2.215	-1.06478	-1.7656	-0.3094	-0.2405	.07164
29.826	4.415	-6.67879	-1.4474	-0.2294	-0.1932	.07061
	GRADIENT	.17546	.01447	.00364	.00215	-.00047

RUN NO. 416/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
44.438	2.214	-1.02392	-1.7245	-0.4145	-0.3645	.05670
44.694	4.330	-6.67845	-1.3659	-0.4718	-0.4037	.04492
	GRADIENT	.16331	.01695	-.00271	-.00185	-.00557

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) (BNH042) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC ELEVON = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC GRADIENT = .0125 GRADIENT = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .16785 GRADIENT = .00990 .03200 .03161 DY = .000 MACH = .300

RUN NO. 421/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
3.128	2.209	-98826	-1.4807	-1.15411	-1.14534	-.05938
3.123	4.221	-6.5050	-1.2816	-0.8272	-.08095	.00423
	GRADIENT	.16785	.00990	.03548	.03200	.03161

RUN NO. 422/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPCC	CPSB1	CPSB2
7.085	2.291	-93493	-1.4143	-0.8087	-0.7733	.01636
7.303	4.347	-6.5417	-1.3197	-0.8046	-0.7334	.01294
	GRADIENT	.13655	.00460	.00020	.00194	-.00166

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(BNH042) ( 08 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .300

RUN NO. 423/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
9.285	2.180	-1.01386	-.14275	-.14445	-.14007	-.04983
9.970	4.347	-.66128	-.12707	-.08184	-.07297	.00774
	GRADIENT	.16270	.00724	.02889	.03096	.02657

RUN NO. 424/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
14.488	2.266	-1.00470	-.13829	-.15348	-.15697	-.06088
14.575	4.354	-.66324	-.12075	-.14908	-.14296	-.04861
	GRADIENT	.16356	.00840	.00211	.00671	.00588

RUN NO. 425/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
29.804	2.191	-1.03721	-.12777	-.14265	-.14002	-.04365
29.724	4.292	-.68210	-.10617	-.06659	-.07547	.00980
	GRADIENT	.16902	.01028	.03620	.03072	.02544

RUN NO. 426/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPSB1	CPSB2
44.766	2.202	-1.01339	-.11757	-.08289	-.07403	.01637
44.688	4.266	-.70006	-.09983	-.07506	-.07152	.01347
	GRADIENT	.15181	.00859	.00379	.00122	-.00140

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA  
 BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
4.365	.192	.58953	6.79528	.02554	-.20623	.32322	.07449	.01796	.00383	.00119	-.00061
2.954	2.364	.58961	8.20568	-.05088	.20371	.34335	.07990	.02524	.00384	.00098	-.00080
3.443	4.308	.59037	10.25770	-.08104	.23854	.41083	.09462	.03238	.00373	.00072	-.00083
	GRADIENT	.00020	.83739	-.02607	.10961	.02105	.00484	.00350	-.00002	-.00011	-.00005

RUN NO. 81/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
6.994	-.126	.58956	6.00552	-.12176	-.34829	.29147	.07116	.01310	.00320	.00117	-.00062
7.541	2.378	.58924	8.29366	.00073	-.32784	.35258	.08152	.02247	.00327	.00104	-.00083
7.335	4.361	.59180	10.30330	-.08161	-.49519	.42281	.09718	.02950	.00349	.00070	-.00079
	GRADIENT	.00047	.95577	.01067	-.03097	.02906	.00573	.00366	.00006	-.00010	-.00004

RUN NO. 82/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.751	-.141	.59169	6.01990	-.16650	-.54241	.29271	.07182	.01168	.00254	.00102	-.00082
9.637	2.414	.59244	8.26560	.04687	-.44705	.35522	.08185	.02208	.00154	.00070	-.00114
9.522	4.401	.59008	10.30680	-.06067	-.42173	.42160	.09774	.02830	.00337	.00071	-.00096
	GRADIENT	-.00033	.94128	.02611	.02708	.02820	.00562	.00368	.00016	-.00007	-.00004

RUN NO. 83/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.752	-.014	.59254	6.14126	-.10545	-.49569	.29345	.07311	.01060	.00262	.00099	-.00090
15.063	2.461	.59202	8.39154	.02080	-.33369	.36068	.08390	.02063	.00277	.00088	-.00112
15.188	4.492	.59069	10.47500	-.10713	-.43565	.43824	.10173	.02723	.00347	.00059	-.00094
	GRADIENT	-.00040	.95993	.00147	.01520	.03195	.00628	.00370	.00018	-.00009	-.00001

RUN NO. 84/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.536	-.028	.59150	6.09616	-.09164	-.41648	.29030	.07457	.00807	.00228	.00099	-.00096
29.860	2.464	.59156	8.37419	.00094	-.32859	.37193	.08663	.01850	.00237	.00082	-.00120
29.902	4.306	.59173	10.26970	-.13705	-.42608	.44641	.10374	.02378	.00317	.00044	-.00118
	GRADIENT	.00005	.96007	-.00776	-.00008	.03583	.00662	.00366	.00020	-.00012	-.00005

RUN NO. 85/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH008) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.873	.59219	6.08741	-.08155	-.48477	.28755	.07578	.0651	.00179	.00091	-.00087
44.666	.59329	8.78191	-.00515	-.48370	.37755	.08855	.01673	.00183	.00071	-.00113
45.029	.59219	10.32980	-.21858	-.52900	.46497	.10787	.02206	.00287	.00038	-.00113
	.00003	.95852	-.02730	-.00939	.03394	.00714	.00356	.00023	-.00012	-.00006

RUN NO. 86/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.039	.59335	6.00790	.05961	-.54456	.28716	.07559	.06005	.00155	.00084	-.00092
50.412	.59218	8.42595	-.20322	-.44509	.38105	.08955	.01637	.00194	.00079	-.00089
50.166	.59202	10.27840	-.19609	-.49766	.46418	.10770	.02127	.00270	.00036	-.00091
	-.00031	.95987	-.06045	.01238	.03963	.00711	.00346	.00025	-.00010	-.00000

RUN NO. 87/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH009) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
8.075	.59107	8.98241	-2.26005	-.48266	.44169	.09300	.02196	.00436	.00072	-.00080
7.276	.59100	10.26110	-.15449	-.50319	.46721	.10281	.02713	.00456	.00059	-.00050
7.800	.59115	12.33510	-.09343	-.54526	.54411	.12890	.03283	.00565	-.00023	-.00070
	.00002	.82302	.53973	-.01535	.02506	.00879	.00268	.00032	-.00023	-.00003

RUN NO. 91/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.930	.59119	8.14574	-.14314	-.47456	.39464	.08505	.01955	.00358	.00089	-.00101
10.158	.59200	10.44690	-.03224	-.44624	.47117	.10506	.00618	.00507	.00064	-.00073
9.843	.59032	12.29420	-.06267	-.55214	.54829	.12987	.03168	.00581	-.00026	-.00067
	-.00017	.95062	.01999	-.01611	.03500	.01016	.00278	.00052	-.00025	-.00008

RUN NO. 92/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .00646 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO.	93/ 0	RN/L = 3.35	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHAC	ALPHA0	DY	CL	CLM	CY	CYN	CBL
14.862	-.101	8.04677	-.38124	.38716	.01778	.00241	.00067	-.00103
14.490	2.534	10.40940	-.47713	.47076	.02488	.00373	.00035	-.00096
15.108	4.322	12.32420	-.54510	.55332	.02962	.00584	-.00036	-.00074
	GRADIENT	.96159	-.03699	.03712	.00268	.00075	-.00022	.00006

RUN NO.	94/ 0	RN/L = 3.35	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHAC	ALPHA0	DY	CL	CLM	CY	CYN	CBL
29.926	-.027	8.10042	-.52747	.39182	.01596	.00251	.00066	-.00127
29.957	2.539	10.47820	-.43116	.48686	.02256	.00418	.00020	-.00103
29.720	4.365	12.31910	-.56262	.57788	.02682	.00608	-.00048	-.00055
	GRADIENT	.95845	-.00504	.04202	.00248	.00080	-.00026	.00016

RUN NO.	95/ 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHAC	ALPHA0	DY	CL	CLM	CY	CYN	CBL
44.465	-.192	7.89170	-.57621	.37731	.01335	.00261	.00077	-.00118
44.798	2.406	10.32970	-.46672	.48328	.02038	.00351	.00018	-.00094
44.826	4.485	12.45260	-.47087	.59809	.02436	.00547	-.00043	-.00076
	GRADIENT	.97370	.02364	.04695	.00237	.00060	-.00026	.00009

RUN NO.	96/ 0	RN/L = 3.35	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHAC	ALPHA0	DY	CL	CLM	CY	CYN	CBL
50.555	-.078	8.07496	-.51299	.38959	.01410	.00297	.00072	-.00122
50.407	2.550	10.48780	-.48408	.49604	.02015	.00354	.00004	-.00104
50.452	4.393	12.38500	-.45860	.59731	.02332	.00481	-.00052	-.00062
	GRADIENT	.96078	.01208	.04505	.00208	.00040	-.00030	.00013

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ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA)

(CNH010) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
6.742	.132	8.00852	-12109	.03761	.39792	.08455	.02173	.00359	.00089	-.00112
7.349	2.303	10.24330	-.02354	.47605	.47605	.10446	.02713	.00393	.00035	-.00102
7.463	4.270	12.22970	-.05880	.11115	.55401	.13110	.03225	.00528	-.00035	-.00069
	GRADIENT	1.02022	.01557	.01830	.03769	.01121	.00254	.00040	-.00030	.00010

RUN NO. 101/ 0 RN/L = 3.39 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.009	-.206	7.96112	-15476	-.38643	.39677	.08500	.01936	.00292	.00086	-.00107
10.088	2.335	10.27510	-.02114	-.41237	.48054	.10575	.02591	.00408	.00045	-.00069
10.447	4.346	12.36190	-.09557	-.31935	.56640	.13557	.03095	.00559	-.00052	-.00045
	GRADIENT	.96426	.01471	.01366	.03707	.01098	.00252	.00058	-.00030	.00014

RUN NO. 102/ 0 RN/L = 3.38 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.028	-.178	7.98002	-14715	-.34488	.39903	.08571	.01831	.00244	.00073	-.00124
14.812	2.367	10.27820	-.01582	-.39669	.48078	.10654	.02454	.00340	.00027	-.00099
15.043	4.381	12.36480	-.09065	-.41872	.57061	.13713	.02939	.00522	-.00052	-.00085
	GRADIENT	.95906	.01408	-.01637	.03739	.01114	.00243	.00060	-.00027	.00009

RUN NO. 103/ 0 RN/L = 3.37 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.734	-.108	8.00410	-10253	-.51265	.39952	.08753	.01619	.00170	.00065	-.00129
30.254	2.360	10.33170	-.08537	-.47228	.49701	.11075	.02228	.00329	.00006	-.00099
29.860	4.407	12.36740	-.12801	-.46917	.59331	.14282	.02652	.00410	-.00055	-.00068
	GRADIENT	.96574	-.00522	.00985	.04217	.01215	.00229	.00054	-.00026	.00014

RUN NO. 104/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.868	-.111	8.01493	-11246	-.41856	.39915	.08840	.01515	.00162	.00064	-.00131
45.183	2.422	10.39430	-.11112	-.43596	.50907	.11364	.02097	.00368	.00009	-.00075
45.129	4.429	12.42070	-.22071	-.48760	.60374	.14740	.02436	.00374	-.00049	-.00094
	GRADIENT	.96903	-.02280	-.01485	.04540	.01286	.00204	.00048	-.00025	.00009

RUN NO. 105/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00



REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 106/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 DX DY CL CD CLM CBL  
 .59354 8.06252 -.00328 -.42559 .39865 .08915 .01455  
 .59459 10.42250 -.01726 -.50454 .50677 .11388 .02014  
 .59433 12.40590 -.14625 -.54820 .61095 .14839 .02383  
 .00019 .96499 -.03050 -.02749 .04702 .01301 .00207  
 GRADIENT .00019 .96499 -.03050 -.02749 .04702 .01301 .00207

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

CY CYN CBL  
 .00156 .00068 -.00117  
 .00371 .00009 -.00062  
 .00392 -.00050 -.00072  
 .00054 -.00026 .00010

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 111/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 DX DY CL CD CLM CBL  
 .59320 4.01104 -.08958 -.18456 .18355 .06131 .01139  
 .59295 6.13462 -.06761 -.22048 .24220 .06651 .01752  
 .59212 8.21639 -.08397 -.22023 .30306 .07512 .02486  
 -.00025 .99629 .00149 -.00861 .02830 .00326 .00319  
 GRADIENT -.00025 .99629 .00149 -.00861 .02830 .00326 .00319

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 4.000 DX = .000  
 DY = .000 MACH = .600

CY CYN CBL  
 .00273 .00103 -.00071  
 .00305 .00111 -.00055  
 .00262 .00092 -.00069  
 -.00002 -.00002 .00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 112/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 DX DY CL CD CLM CBL  
 .59381 4.03941 -.20703 -.12903 .19545 .06224 .00826  
 .59203 6.25137 .12007 .22900 .25253 .06797 .01520  
 .59299 8.17837 -.04267 -.20347 .30360 .07603 .02238  
 .00021 .93117 .04249 -.01813 .02537 .00306 .00316  
 GRADIENT .00021 .93117 .04249 -.01813 .02537 .00306 .00316

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

CY CYN CBL  
 .00284 .00119 -.00068  
 .00290 .00106 -.00082  
 .00368 .00114 -.00084  
 .00018 -.00001 -.00004

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 113/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 DX DY CL CD CLM CBL  
 .59267 4.05269 -.16821 -.18607 .19573 .06261 .00697  
 .59142 6.23779 .09256 -.22556 .25535 .06862 .01381  
 .59138 8.30710 -.01048 -.22926 .31451 .07706 .02198  
 .00029 .93566 .03704 -.00973 .02611 .00316 .00329  
 GRADIENT .00029 .93566 .03704 -.00973 .02611 .00316 .00329

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

CY CYN CBL  
 .00327 .00122 -.00081  
 .00317 .00115 -.00080  
 .00324 .00103 -.00095  
 -.00001 -.00004 -.00003

ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA)

(CNH011) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 114/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.874	ALPHAC	ALPHAO	DX	DY	CL	CO	CLM	CYN	CBL
	14.967	-.041	4.15214	-.12322	-.19547	.20029	.06411	.00529	.00357	.00131
	14.923	2.414	6.32741	-.01929	-.23114	.26277	.07015	.01263	.00340	-.00081
		4.392	8.34322	-.17291	-.18094	.32567	.07916	.02140	.00318	-.00097
		GRADIENT	.94304	-.00909	.00257	.02817	.00336	.00361	-.00009	-.00001

RUN NO. 115/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.907	ALPHAC	ALPHAO	DX	DY	CL	CO	CLM	CYN	CBL
	29.803	-.177	4.00406	-.12413	-.17462	.19487	.06522	.00217	.00283	.00120
	29.693	2.432	6.32040	-.14288	-.23873	.27269	.07318	.01051	.00218	-.00098
		4.435	8.35864	-.12964	-.21969	.34705	.08319	.01999	.00315	-.00117
		GRADIENT	.94143	-.00149	-.01050	.03284	.00386	.00383	.00005	-.00004

RUN NO. 116/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.786	ALPHAC	ALPHAO	DX	DY	CL	CO	CLM	CYN	CBL
	45.057	-.134	4.02465	-.06309	-.24970	.19449	.06665	.00065	.00215	.00107
	44.452	2.347	6.29147	-.22253	-.27150	.28463	.07483	.00925	.00213	-.00092
		4.450	8.35115	-.10643	-.18981	.36513	.08620	.01858	.00279	-.00110
		GRADIENT	.94287	-.01108	.01242	.03719	.00424	.00390	.00013	-.00002

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA)

(CNH012) ( 08 OCT 75 )

RUN NO. 121/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.209	ALPHAC	ALPHAO	DX	DY	CL	CO	CLM	CYN	CBL
	3.176	.038	5.99659	-.06803	-.28949	.29210	.06961	.01664	.00433	.00120
	3.398	2.411	8.26383	-.05291	-.22924	.34938	.07925	.02634	.00410	-.00069
		4.319	10.27320	-.08407	-.32241	.41676	.09481	.03311	.00440	-.00070
		GRADIENT	.99710	-.00334	-.00637	.02892	.00581	.00386	.00001	-.00010

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (CNH012) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 122/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.586	-.026	.59403	6.16280	-.20573	-.26645	.30505	.07102	.01434	.00402	.00123	-.00082
7.752	2.399	.59281	8.34562	-.04076	-.30365	.36180	.08137	.02393	.00482	.00121	-.00102
7.261	4.448	.59334	10.37730	-.07958	-.41296	.42709	.09177	.03053	.00475	.00085	-.00112
	GRADIENT	-.00016	.94074	.02940	-.03222	.02716	.00580	.00363	.00017	-.00008	-.00007

RUN NO. 123/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.180	-.156	.59296	6.05873	-.19455	-.29121	.30080	.07119	.01271	.00414	.00121	-.00109
9.988	2.439	.59362	8.34630	.02098	-.28681	.33950	.08155	.02265	.00449	.00113	-.00104
10.110	4.458	.59257	10.42810	-.10402	-.32093	.43751	.09921	.02971	.00429	.00063	-.00116
	GRADIENT	-.00007	.94394	.02257	-.00606	.02930	.00598	.00369	.00004	-.00012	-.00001

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (CNH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 131/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.093	.127	.59355	6.06234	-.01073	-.54464	.29869	.07136	.01782	.00195	.00101	-.00043
3.006	2.255	.59495	8.09604	-.05380	-.49183	.34394	.08007	.02619	.00302	.00108	-.00040
3.460	4.338	.59342	10.26890	-.06887	-.57379	.42077	.09640	.03339	.00255	.00077	-.00047
	GRADIENT	-.00003	1.00357	-.01383	-.00681	.02397	.00594	.00370	.00014	-.00006	-.00001

RUN NO. 132/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.217	-.139	.59173	6.01524	-.15708	-.42273	.29924	.07180	.01398	.00197	.00108	-.00044
7.234	2.360	.59269	8.25183	.04116	-.50229	.35760	.08178	.02363	.00244	.00104	-.00058
7.262	4.367	.59204	10.29700	-.06766	-.51025	.42833	.09774	.03051	.00225	.00075	-.00055
	GRADIENT	0.00008	.94800	.02224	-.01992	.02843	.00569	.00368	.00007	-.00007	-.00003

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DZ	10.116	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	9.960	-.237	.59189	5.97668	-.21796	-.45642	.29924	.07209	.01266	.00244	.00123	-.00060
	9.890	2.407	.59154	8.30916	.00486	-.58665	.36120	.08236	.02314	.00186	.00091	-.00070
		4.371	.59196	10.31750	-.10588	-.58819	.43175	.09849	.02966	.00261	.00073	-.00072
		GRADIENT	.00001	.93856	.02768	-.02975	.02846	.00563	.00370	.00002	-.00011	-.00003

DZ	15.175	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	14.756	-.191	.59168	6.02236	-.14580	-.48842	.29907	.07274	.01157	.00194	.00103	-.00067
	15.038	2.411	.59073	8.30132	.10008	-.50023	.36298	.08364	.02146	.00187	.00090	-.00073
		4.441	.59089	10.40650	-.06533	-.53208	.43963	.10085	.02823	.00233	.00058	-.00089
		GRADIENT	-.00018	.94319	.02092	-.00920	.03008	.00598	.00361	.00008	-.00009	-.00005

DZ	30.192	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	29.830	-.063	.59060	6.12957	-.13999	-.48303	.30273	.07456	.00999	.00205	.00099	-.00100
	29.948	2.435	.59017	8.34504	.02612	-.52953	.37641	.08638	.01984	.00195	.00083	-.00096
		4.393	.59049	10.35230	-.12102	-.48783	.45628	.10440	.02574	.00331	.00063	-.00098
		GRADIENT	-.00003	.94505	.00706	-.00187	.03424	.00661	.00355	.00027	-.00008	-.00001

DZ	44.708	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	44.452	-.049	.59048	6.08505	-.03050	-.55682	.29870	.07513	.00898	.00123	.00096	-.00067
	44.667	2.450	.59053	8.32281	.06383	-.52600	.37968	.08733	.01851	.00153	.00083	-.00090
		4.474	.59092	10.41210	-.13420	-.55187	.46929	.10755	.02404	.00227	.00044	-.00076
		GRADIENT	.00009	.95448	-.02059	.00153	.03752	.00708	.00335	.00023	-.00011	-.00002

DZ	50.164	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	50.275	-.057	.59060	6.08766	.02680	-.50309	.29697	.07585	.00813	.00127	.00097	-.00064
	50.038	2.433	.59151	8.35052	-.22483	-.52458	.38359	.08893	.01765	.00143	.00087	-.00064
		4.464	.59112	10.39360	-.15954	-.56778	.47523	.10877	.02322	.00239	.00046	-.00053
		GRADIENT	.00012	.95078	-.04344	-.01410	.03926	.00720	.00336	.00024	-.00011	-.00002

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(CMH014) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 141/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.324	2.292	.58874	8.14864	9.83387	-.61049	.35035	.08094	.02242	.00205	.00117	-.00021
3.528	4.239	.58797	10.18740	9.90698	-.62378	.40963	.09341	.02775	.00184	.00091	-.00044
	GRADIENT	-.00040	1.04754	.03756	-.00683	.03046	.00743	.00274	-.00011	-.00013	-.00012

RUN NO. 142/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.340	1.933	.59106	8.03902	9.83965	-.57642	.35830	.08128	.01997	.00212	.00111	-.00049
7.097	4.300	.59023	10.18070	9.98195	-.56853	.41837	.09642	.02518	.00201	.00086	-.00054
	GRADIENT	-.00035	.90459	.06010	.00333	.02537	.00840	.00220	-.00004	-.00010	-.00002

RUN NO. 143/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.137	1.946	.58948	8.07874	9.80002	-.65521	.35981	.08197	.01872	.00108	.00097	-.00063
9.825	4.403	.58978	10.29950	9.94826	-.61097	.42415	.09808	.02447	.00145	.00080	-.00057
	GRADIENT	.00012	.90381	.06033	.01800	.02619	.00656	.00234	.00015	-.00007	.00003

RUN NO. 144/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.831	1.968	.58834	8.07216	9.88695	-.56380	.36106	.08296	.01753	.00130	.00101	-.00051
14.775	4.376	.58834	10.27830	9.98489	-.67370	.43154	.09987	.02328	.00173	.00075	-.00073
	GRADIENT	.00000	.91632	.04068	-.04564	.02927	.00702	.00239	.00018	-.00011	-.00009

RUN NO. 145/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	UY	CL	CD	CLM	CY	CYN	CBL
30.007	1.997	.58824	8.10933	9.83759	-.54460	.37372	.08552	.01637	.00126	.00092	-.00082
29.873	4.457	.59120	10.31920	9.90959	-.67261	.45572	.10431	.02239	.00143	.00053	-.00099
	GRADIENT	.00124	.92270	.03006	-.05345	.03424	.00785	.00251	.00007	-.00016	-.00007

RUN NO. 146/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.854	1.998	.59220	8.09096	9.89672	-.59050	.37508	.08629	.01541	.00140	.00102	-.00071
44.891	4.430	.59175	10.36500	9.89048	-.62597	.47522	.10792	.02161	.00114	.00038	-.00079
	GRADIENT	-.00019	.93496	-.00257	-.01458	.04117	.00889	.00255	-.00011	-.00026	-.00003

ARC 14-120(CA23B) 74771 AT1 02S1 (ORBITER DATA)

(CNH014) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

RUN NO. 147/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.387	2.049	.59016	8.14847	9.82864	-.58366	.38305	.08763	.01580	-.00014	.00069	-.00068
50.182	4.431	.59062	10.35190	9.93609	-.63135	.47280	.10773	.02132	.00127	.00046	-.00060
	GRADIENT	.00019	.92503	.00313	-.02002	.03768	.00844	.00232	.00059	-.00010	.00003

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = 5.000  
 6.000 DX = 10.000  
 .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

RUN NO. 151/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.261	2.410	.59012	10.27640	9.87396	-.64955	.46732	.10364	.02450	.00279	.00066	-.00049
7.540	4.362	.58935	12.32900	9.88592	-.65076	.54361	.12866	.02917	.00483	.00001	-.00016
	GRADIENT	-.00039	1.05174	.00613	-.00062	.03909	.01282	.00239	.00105	-.00033	.00017

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = 5.000  
 8.000 DX = 10.000  
 .000 MACH = .600

ARC 14-120(CA23B) 74771 AT1 02S1 (ORBITER DATA)

(CNH015) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

RUN NO. 152/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.896	2.043	.58898	10.12980	9.84214	-.69514	.47149	.10320	.02354	.00322	.00071	-.00054
10.215	4.469	.58898	12.42930	9.88451	-.62920	.55680	.13246	.02845	.00498	-.00012	-.00043
	GRADIENT	-.00000	.94813	.01747	.02719	.03518	.01206	.00202	.00072	-.00034	.00004

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = 5.000  
 8.000 DX = 10.000  
 .000 MACH = .600

ARC 14-120(CA23B) 74771 AT1 02S1 (ORBITER DATA)

(CNH016) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

RUN NO. 153/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.806	2.079	.58834	10.16290	9.83145	-.73897	.47632	.10483	.02243	.00282	.00051	-.00075
14.750	4.497	.59019	12.41680	9.90355	-.69922	.56613	.13512	.02707	.00451	-.00037	-.00024
	GRADIENT	.00076	.93236	.02983	.01644	.03715	.01253	.00192	.00070	-.00036	.00021

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = 5.000  
 8.000 DX = 10.000  
 .000 MACH = .600

ARC 14-120(CA23B) 74771 AT1 02S1 (ORBITER DATA)

(CNH017) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

RUN NO. 154/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.131	2.049	.58930	10.16660	9.85376	-.59362	.49289	.10874	.02076	.00310	.00038	-.00076
30.087	4.493	.59112	12.45850	9.88809	-.66197	.59235	.14258	.02493	.00459	-.00038	-.00023
	GRADIENT	.00074	.93764	.01404	-.02796	.04069	.01385	.00170	.00061	-.00031	.00022

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = 5.000  
 8.000 DX = 10.000  
 .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN.      YMRP = .0000 IN. YO  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 155/ 0      RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.833	2.044	10.11530	9.84286	-.70105	.49116	.10874	.01962	.00244	.00020	-.00093
45.102	4.460	12.43770	9.80066	-.69118	.60459	.14565	.02362	.00449	-.00025	-.00035
	GRADIENT	.96142	-.01747	.00409	.04696	.01528	.00166	.00085	-.00019	.00024

RUN NO. 156/ 0      RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.292	2.016	10.08650	9.95743	-.71722	.49414	.10914	.01936	.00273	.00025	-.00067
50.425	4.375	12.34030	9.90189	-.85667	.60587	.14524	.02314	.00354	-.00045	-.00016
	GRADIENT	.95528	-.02354	.02566	.04736	.01530	.00160	.00035	-.00029	.00022

REFERENCE DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN.      YMRP = .0000 IN. YO  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 161/ 0      RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.997	2.461	8.27632	19.88670	-.85192	.35256	.08452	.01793	.00288	.00108	-.00039
3.241	4.340	10.26730	19.94590	-.73584	.41163	.09864	.02208	.00320	.00089	-.00055
	GRADIENT	1.06004	.03152	.06180	.03145	.00752	.00221	.00017	-.00010	-.00009

RUN NO. 162/ 0      RN/L = 3.28      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.114	2.024	8.10145	19.88560	-.81205	.35885	.08383	.01503	.00338	.00121	-.00066
7.110	4.482	10.36010	19.98690	-.80660	.42292	.10007	.01946	.00365	.00096	-.00080
	GRADIENT	.91870	.04120	.00222	.02606	.00661	.00180	.00011	-.00010	-.00006

RUN NO. 163/ 0      RN/L = 3.31      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.110	1.989	8.13025	19.81960	-.76563	.36144	.08427	.01420	.00277	.00105	-.00072
9.502	4.485	10.34260	20.00000	-.81234	.42304	.10027	.01867	.00346	.00085	-.00082
	GRADIENT	.88639	.07228	-.01871	.02468	.00641	.00179	.00028	-.00008	-.00004

PARAMETRIC DATA

BETA = .000      STAB = 5.000  
 RUDDER = .000      ELEVON = 5.000  
 TORR = 8.000      DX = 10.000  
 CY = .000      MACH = .600

PARAMETRIC DATA

BETA = .000      STAB = 5.000  
 RUDDER = .000      ELEVON = 5.000  
 TORR = 6.000      DX = 20.000  
 CY = .000      MACH = .600

PARAMETRIC DATA

BETA = .000      STAB = 5.000  
 RUDDER = .000      ELEVON = 5.000  
 TORR = 6.000      DX = 20.000  
 CY = .000      MACH = .600

ARC 14-120(CA238) 747/1 AT1 02S1 (ORBITER DATA)

(CNH016) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = -20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.885	2.147	.58950	8.26269	19.89530	-.82928	.36955	.08553	.01408	.00291	.00101	-.00081
14.669	4.296	.58971	10.20060	20.01710	-.74015	.42908	.10025	.01823	.00347	.00072	-.00102
	GRADIENT	.00010	.90195	.05669	.04148	.02771	.00685	.00193	.00026	-.00014	-.00010

RUN NO. 164/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.970	2.006	.59006	8.11890	19.88350	-.30714	.37392	.08589	.01379	.00286	.00094	-.00112
29.738	4.442	.59030	10.34740	19.95900	-.36086	.45395	.10496	.01904	.00278	.00061	-.00092
	GRADIENT	.00010	.91480	.03099	-.02205	.03285	.00783	.00216	-.00003	-.00013	.00008

RUN NO. 165/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.740	2.001	.58963	8.08105	19.87420	-.75225	.37675	.08659	.01384	.00215	.00087	-.00089
44.620	4.440	.58976	10.34770	19.88250	-.77199	.46952	.10736	.01946	.00306	.00047	-.00108
	GRADIENT	.00005	.92940	.00340	-.00810	.03804	.00852	.00231	.00037	-.00016	-.00007

RUN NO. 166/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.218	1.983	.58890	8.06786	19.98550	-.80823	.37603	.08697	.01368	.00217	.00092	-.00085
50.509	4.478	.58886	10.43010	19.90790	-.77122	.47511	.10909	.01948	.00324	.00042	-.00097
	GRADIENT	-.00002	.94658	-.03110	.01483	.03970	.00887	.00233	.00043	-.00020	-.00005

RUN NO. 167/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00



ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITTER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1109.0000 IN. XO      BETA = .000      STAB = 5.000  
 LREF = 474.8100 IN.      YMRP = .0000 IN. YO      RUDDER = .000      ELEVON = 5.000  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO      10RB = 8.000      DX = 20.000  
 SCALE = .0125

PARAMETRIC DATA

CY      CY      CYN      CBL  
 .00380      .00062      .00090  
 .00590      -.00011      -.00031  
 .00101      -.00035      .00028

RUN NO. 171/ 0      RN/L = 3.31      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.409	2.320	.59052	10.20990	19.85050	-.73949	.46268	.10417	.02117	.00380	.00062	.00090
7.682	4.409	.58988	12.38070	19.85190	-.88774	.54214	.12999	.02461	.00590	-.00011	-.00031
	GRADIENT	-.00031	1.03942	.00067	-.07099	.03805	.01236	.00165	.00101	-.00035	.00028

RUN NO. 172/ 0      RN/L = 3.32      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.200	1.989	.59146	10.12200	19.86550	-.83323	.46954	.10444	.02029	.00444	.00067	.00084
9.876	4.367	.59089	12.26790	19.96400	-.80872	.54341	.13000	.02350	.00510	-.00021	-.00057
	GRADIENT	-.00024	.91088	.04142	.01030	.03107	.01075	.00135	.00028	-.00037	.00011

RUN NO. 173/ 0      RN/L = 3.33      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.980	2.042	.59126	10.15750	19.87800	-.83951	.47141	.10518	.01925	.00464	.00055	.00120
14.840	4.390	.59227	12.31590	19.95010	-.82679	.55127	.13200	.02242	.00524	-.00027	-.00066
	GRADIENT	.00043	.91935	.03071	.00542	.03401	.01143	.00135	.00025	-.00035	.00023

RUN NO. 174/ 0      RN/L = 3.32      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.168	1.994	.59111	10.12010	19.85060	-.87986	.48149	.10731	.01832	.00438	.00050	.00101
29.810	4.397	.59085	12.32620	19.90240	-.75313	.57931	.13886	.02203	.00624	-.00041	-.00079
	GRADIENT	-.00011	.91819	.02156	.05275	.04071	.01313	.00154	.00077	-.00038	.00009

RUN NO. 175/ 0      RN/L = 3.32      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.854	2.109	.59147	10.18690	19.84610	-.82726	.49282	.10942	.01842	.00332	.00012	.00088
45.244	4.417	.59090	12.41310	19.77770	-.77838	.59969	.14446	.02183	.00516	-.00043	-.00087
	GRADIENT	-.00025	.96464	-.02964	.02118	.04631	.01519	.00148	.00080	-.00024	.00000

RUN NO. 176/ 0      RN/L = 3.32      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.344	2.118	.59046	10.19050	19.95560	-.87380	.49087	.10974	.01816	.00362	.00028	.00088
50.595	4.352	.59133	12.33830	19.88730	-.81367	.59769	.14366	.02146	.00529	-.00040	-.00074
	GRADIENT	.00039	.96146	-.03057	.02692	.04782	.01518	.00148	.00075	-.00031	.00006

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(CNH018) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 181/ 0		RN/L = 3.32		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	3.378	ALPHA	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
	3.590	2.472	8.33671	-.12064	9.62659	.36398	.08162	.02639	.00301	-.00040	-.00391
		4.405	10.37400	-.08127	9.59622	.42915	.09697	.03430	.00146	-.00099	-.00654
		GRADIENT	1.05348	.02036	-.01570	.03370	.00794	.00409	-.00080	-.00030	-.00136
RUN NO. 182/ 0		RN/L = 3.31		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	7.711	ALPHA	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
	7.202	2.009	8.13180	-.20008	9.51655	.36982	.08232	.02261	.00200	-.00013	-.00296
		4.378	10.27110	-.01628	9.52298	.43373	.09791	.03028	.00130	-.00067	-.00523
		GRADIENT	.90293	.07757	.04492	.02740	.00658	.00324	-.00029	-.00023	-.00096
RUN NO. 183/ 0		RN/L = 3.31		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	9.911	ALPHA	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
	10.102	2.005	8.10379	-.17612	9.57279	.36763	.08245	.02174	.00248	.00007	-.00297
		4.475	10.41380	-.06798	9.48457	.44477	.10067	.02961	.00114	-.00075	-.00478
		GRADIENT	.93526	.04378	-.03572	.03123	.00738	.00319	-.00054	-.00033	-.00073
RUN NO. 184/ 0		RN/L = 3.33		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	14.973	ALPHA	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
	14.736	2.102	8.20417	-.19876	9.52500	.37273	.08407	.02085	.00229	.00022	-.00286
		4.362	10.27250	-.05627	9.52253	.44470	.10075	.02800	.00119	-.00043	-.00394
		GRADIENT	.91486	.06303	-.00109	.03183	.00738	.00316	-.00049	-.00029	-.00048
RUN NO. 185/ 0		RN/L = 3.33		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	29.716	ALPHA	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
	29.761	2.100	8.16409	-.17495	9.55144	.37583	.08607	.01815	.00214	.00055	-.00211
		4.335	10.25280	-.11756	9.58290	.45944	.10471	.02466	.00169	-.00006	-.00276
		GRADIENT	.93464	.02568	.01408	.03697	.00834	.00291	-.00020	-.00027	-.00029
RUN NO. 186/ 0		RN/L = 3.32		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	44.733	ALPHA	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
	44.856	1.972	8.04435	-.07776	9.51284	.37850	.08701	.01643	.00198	.00069	-.00164
		4.308	10.24170	-.08370	9.47621	.47175	.10751	.02290	.00217	.00012	-.00197
		GRADIENT	.94063	-.00254	-.01568	.03992	.00877	.00277	.00008	-.00025	-.00014

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 10RB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .96074 .03527 .04296 .00919 .00282 .00002 -.00029 -.00015  
 RUN NO. 187/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHA0 CL CLM CYN CBL  
 .59027 8.06519 .37761 .01579 .00074 -.00140  
 .59076 10.34680 .47963 .02249 .00006 -.00175  
 .00020 .96074 .03527 .04296 .00919 .00282 -.00002 -.00029 -.00015

PARAMETRIC DATA  
 BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 10RB = 6.000 DX = .000  
 DY = 10.000 MACH = .600  
 CY CYN CBL  
 .00216 .00074 -.00140  
 .00212 .00006 -.00175  
 -.00002 -.00029 -.00015

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 10RB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .94929 .04286 .04183 .01420 .00274 .00061 -.00019 -.00082  
 RUN NO. 191/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHA0 CL CLM CYN CBL  
 .59105 10.30160 .48240 .02815 .00282 -.00386  
 .59167 12.38840 .56503 .03356 .00162 -.00549  
 .00031 1.05655 .04929 .04286 .04183 .01420 .00274 .00061 -.00019

PARAMETRIC DATA  
 BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 10RB = 6.000 DX = .000  
 DY = 10.000 MACH = .600  
 CY CYN CBL  
 .00282 .00067 -.00386  
 .00162 .00104 -.00549  
 -.00061 -.00019 -.00082

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 10RB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .94548 .03279 .03879 .01219 .00239 .00042 -.00024 -.00060  
 RUN NO. 193/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHA0 CL CLM CYN CBL  
 .59083 10.17870 .48416 .02671 .00311 -.00336  
 .59198 12.23590 .55980 .03195 .00220 -.00468  
 .00052 .94548 .03279 .03879 .01219 .00239 .00042 -.00024 -.00060

PARAMETRIC DATA  
 BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 10RB = 6.000 DX = .000  
 DY = 10.000 MACH = .600  
 CY CYN CBL  
 .00243 .00014 -.00253  
 .00300 .00082 -.00361  
 .00023 -.00028 -.00044

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 10RB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .94210 .02294 .04470 .01467 .00206 .00012 -.00031 -.00012  
 RUN NO. 194/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHA0 CL CLM CYN CBL  
 .59214 10.12240 .48645 .02239 .00264 -.00179  
 .59179 12.37380 .59328 .02730 .00235 -.00207  
 .00014 .94210 .02294 .04470 .01467 .00206 .00012 -.00031 -.00012

PARAMETRIC DATA  
 BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 10RB = 6.000 DX = .000  
 DY = 10.000 MACH = .600  
 CY CYN CBL  
 .00243 .00014 -.00253  
 .00300 .00082 -.00361  
 .00023 -.00028 -.00044

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(CNH019) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 195/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.421	2.014	.59170	10.02770	-1.16199	9.45087	.48929	.10806	.02098	.00296	.00008	-.00155
45.079	4.380	.59194	12.36580	-.23329	9.39875	.60659	.14609	.02543	.00422	-.00032	-.00155
	GRADIENT	.00010	.98810	-.03013	-.02203	.04957	.01507	.00188	.00053	-.00017	.00000

RUN NO. 196/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.290	2.002	.59172	10.06530	-1.10008	9.48992	.49297	.10901	.02060	.00292	.00016	-.00113
50.279	4.323	.59165	12.27740	-.12280	9.32532	.60466	.14522	.02454	.00331	-.00054	-.00136
	GRADIENT	-.00003	.95279	-.00978	-.07090	.04811	.01560	.00169	.00017	-.00030	-.00010

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(CNH020) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.999	.056	.58831	4.00251	-.04123	-.23247	.11196	.05481	.04604	.00287	.00075	-.00108
2.972	2.231	.58905	6.08127	-.02004	-.45838	.16998	.05692	.05121	.00322	.00079	-.00125
3.376	4.258	.58842	8.18834	-.10046	-.24934	.22952	.06265	.05845	.00359	.00085	-.00098
	GRADIENT	.00003	.99573	-.01381	-.00523	.02797	.00186	.00294	.00017	.00002	.00002

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.356	-.232	.58699	3.96105	-.11584	-.45749	.11644	.05530	.04273	.00249	.00074	-.00119
7.305	2.422	.58730	6.30038	-.05714	-.37696	.17558	.05808	.04874	.00338	.00084	-.00119
7.176	4.286	.58692	8.19710	-.06747	-.36099	.23487	.06336	.05684	.00396	.00082	-.00119
	GRADIENT	-.00001	.93375	-.01148	.02197	.02595	.00173	.00306	.00032	.00002	-.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.998	-.190	.58793	4.02219	-.11365	-.37733	.11783	.05584	.04137	.00354	.00091	-.00141
9.822	2.393	.58937	6.27375	-.05987	-.30188	.18199	.05862	.04801	.00391	.00090	-.00142
9.715	4.416	.59040	8.32394	-.08454	-.41242	.23935	.06440	.05621	.00405	.00096	-.00109
GRADIENT		.00054	.93124	.00698	-.00595	.02632	.00182	.00319	.00011	.00001	.00007

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.608	-.076	.58772	4.08571	-.06537	-.37283	.12129	.05627	.03985	.00310	.00080	-.00155
14.941	2.433	.58701	6.34658	-.07447	-.40100	.18745	.05988	.04647	.00323	.00083	-.00136
14.567	4.425	.58680	8.32952	-.05492	-.38851	.24878	.06607	.05566	.00330	.00076	-.00116
GRADIENT		-.00021	.94105	.00207	-.00381	.02824	.00215	.00348	.00004	-.00001	.00009

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.742	-.160	.58720	4.00738	-.10009	-.36988	.11649	.05774	.03660	.00269	.00073	-.00165
29.812	2.421	.58738	6.31885	-.11181	-.40752	.19767	.06231	.04446	.00224	.00062	-.00146
29.770	4.475	.58798	8.40410	-.11226	-.35652	.26885	.06963	.05453	.00302	.00062	-.00152
GRADIENT		.00016	.94646	-.00271	.00215	.03282	.00253	.00383	.00006	-.00003	.00003

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.518	-.106	.58472	4.02971	.03690	-.36779	.11609	.05835	.03527	.00222	.00070	-.00147
44.662	2.474	.58704	6.37977	-.16221	-.37945	.20682	.06370	.04328	.00234	.00065	-.00155
44.473	4.486	.58677	8.38738	-.08498	-.47223	.28382	.07175	.05370	.00278	.00055	-.00145
GRADIENT		.00047	.94767	-.02887	-.02190	.03647	.00288	.00397	.00012	-.00003	.00000

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(CNH021) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORR = 4.000 DX = .000  
 DY = .000 MACH = .600

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.110	.173	.59032	4.13765	.0551	-.20611	.11084	.05294	.04741	.00321	.00081	-.00106
3.078	2.255	.58980	6.12604	.06801	-.21105	.16378	.05504	.05197	.00382	.00087	-.00112
3.099	4.353	.58919	8.25467	-.06491	-.16472	.22732	.06108	.06029	.00348	.00074	-.00101
	GRADIENT	-.00027	.98490	-.02885	.00992	.02787	.00195	.00308	.00006	-.00002	.00001

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.673	-.126	.58936	4.09240	-.18828	-.18525	.11534	.05380	.04404	.00371	.00091	-.00131
7.105	2.399	.59041	6.25655	.15853	-.09697	.16995	.05606	.04986	.00332	.00082	-.00113
7.181	4.355	.59012	8.27549	-.01836	-.15793	.23263	.06189	.05809	.00335	.00072	-.00117
	GRADIENT	.00018	.92981	.04263	.00747	.02596	.00176	.00310	-.00008	-.00004	.00003

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.888	-.253	.58982	3.93747	-.15837	-.11137	.10882	.05397	.04222	.00315	.00079	-.00132
10.133	2.398	.58989	6.31405	.06994	-.24594	.17686	.05687	.04878	.00352	.00052	-.00122
9.989	4.413	.59053	8.35993	-.07054	-.19440	.23951	.06307	.05762	.00292	.00060	-.00121
	GRADIENT	.00015	.94507	.02227	-.01948	.02789	.00191	.00326	-.00004	-.00004	.00003

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.808	-.052	.58985	4.11715	-.15706	-.17204	.11956	.05483	.04118	.00316	.00076	-.00163
14.795	2.452	.59025	6.35472	.07017	-.23071	.18293	.05817	.04764	.00286	.00073	-.00133
14.946	4.403	.59031	8.36005	-.10634	-.11922	.24702	.05469	.05658	.00331	.00069	-.00116
	GRADIENT	.00011	.94963	.01505	.01022	.02846	.00217	.00341	.00003	-.00002	.00011

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.743	-.137	.58938	4.01695	-.08435	-.19008	.11721	.05644	.03793	.00241	.00071	-.00144
29.755	2.487	.58988	6.37588	.09984	-.25948	.19605	.06090	.04539	.00258	.00068	-.00158
29.747	4.402	.58886	8.33645	-.09113	-.25259	.26473	.06819	.05481	.00289	.00065	-.00127
	GRADIENT	-.00010	.94850	.00278	-.01453	.03235	.00253	.00367	.00010	-.00001	.00003

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH021) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

RUN NO. 216/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.609	-.114	.58927	4.02468	-.01984	-.25920	.11722	.05765	.03645	.00143	.00061	-.00130
44.499	2.547	.58928	6.42453	-.11469	-.27177	.21113	.06283	.04454	.00189	.00060	-.00154
44.744	4.315	.58963	8.25444	-.16824	-.15241	.27695	.07013	.05358	.00186	.00064	-.00112
	GRADIENT	.00008	.95288	-.03368	.02181	.03601	.00275	.00380	.00010	.00001	.00003

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH022) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

RUN NO. 221/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.175	.180	.58751	8.11954	-.16244	-.11696	.32022	.05966	.05895	.00279	.00059	-.00131
7.048	2.374	.58636	10.26950	-.05073	-.21394	.39060	.08444	.05896	.00341	.00042	-.00119
7.827	4.374	.58649	12.37650	-.15546	-.21015	.47504	.10919	.07284	.00430	-.00038	-.00083
	GRADIENT	-.00025	1.01450	.00246	-.02258	.03684	.00938	.00332	.00036	-.00023	.00011

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 222/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.008	-.095	.58707	8.06837	-.20800	-.19570	.32555	.07076	.05723	.00338	.00067	-.00141
9.794	2.462	.58734	10.36610	-.06785	-.15123	.39462	.08654	.06573	.00380	.00034	-.00150
10.168	4.329	.58785	12.32470	-.15342	-.17388	.47846	.11014	.07118	.00472	-.00045	-.00107
	GRADIENT	.00017	.95815	.01487	.00567	.03411	.00874	.00316	.00030	-.00024	.00007

RUN NO. 223/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.875	-.131	.58685	8.01212	-.19848	-.24112	.31830	.07055	.05534	.00215	.00044	-.00149
15.107	2.479	.58648	10.42410	-.11788	-.18222	.40138	.08780	.06525	.00311	.00023	-.00133
14.650	4.467	.58705	12.40420	-.05808	-.21425	.48539	.11280	.07012	.00606	-.00023	-.00112
	GRADIENT	.00003	.95356	.03055	.00869	.03611	.00906	.00324	.00083	-.00014	.00008

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (CNH022) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BRF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 224/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.663	-.130	.58892	7.98338	-.10589	-.11844	.31787	.07174	.05342	.00254	.00051	.00151
30.014	2.540	.58798	10.47220	-.08622	-.13268	.41218	.09086	.06292	.00305	.00014	-.00174
30.212	4.360	.58896	12.37080	-.18388	-.19792	.50728	.11872	.06715	.00468	-.00040	-.00116
	GRADIENT	-.00002	.97369	-.01553	-.01678	.04167	.01021	.00310	.00046	-.00020	.00007

RUN NO. 225/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.608	-.097	.58819	8.00014	-.04496	-.19464	.31483	.07255	.05170	.00209	.00048	.00153
44.758	2.520	.58859	10.43710	-.06430	-.22195	.41711	.09205	.06112	.00240	.00010	-.00144
44.921	4.300	.58930	12.28420	-.18464	-.16737	.51553	.12035	.06465	.00428	-.00035	-.00113
	GRADIENT	.00024	.97103	-.02995	.00496	.04515	.01062	.00299	.00047	-.00019	.00009

RUN NO. 226/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.329	-.122	.58776	8.01036	-.00488	-.17679	.31404	.07275	.05120	.00237	.00063	.00145
50.199	2.456	.58928	10.37780	-.00681	-.25490	.41323	.09168	.06030	.00239	.00013	-.00142
50.308	4.443	.58796	12.41190	-.14747	-.12834	.52194	.12285	.06379	.00481	-.00025	-.00118
	GRADIENT	.00007	.96199	-.02976	.00863	.04520	.01080	.00280	.00051	-.00019	.00006

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BRF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (CNH023) ( 08 OCT 75 )

RUN NO. 231/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.160	.028	.58722	5.96832	-.09825	-.23409	.22048	.05934	.05058	.00317	.00077	.00087
3.398	2.478	.58690	8.39557	-.15849	-.28051	.28263	.06722	.06179	.00326	.00067	-.00106
3.235	4.342	.58675	10.26840	-.07571	-.33921	.07781	.07102	.00378	.00378	.00056	-.00132
	GRADIENT	-.00011	.99639	.00370	-.02409	.02755	.00423	.00473	.00014	-.00005	-.00010



(CM1023) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 232/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.044	ALPHAC	-.157	ALPHA0	5.98727	DX	-.15115	DY	-.25234	CL	.22450	CD	.05999	CLM	.04828	CY	.00305	CYN	.00075	CBL	-.00116
	7.210		2.438		8.31873		.02879		-.21173		.28278		.06705		.05945		.00300		.00063		-.00111
	7.208		4.444		10.35950		-.09076		-.26838		.34392		.07907		.06857		.00294		.00034		-.00151
		GRADIENT	.00011		.94774		.01582		-.00257		.02979		.00408		.00440		-.00002		-.00009		-.00007

RUN NO. 233/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.588	ALPHAC	-.079	ALPHA0	6.07114	DX	-.10027	DY	-.30779	CL	.22535	CD	.06049	CLM	.04747	CY	.00282	CYN	.00072	CBL	-.00116
	9.981		2.449		8.36328		.04293		-.30356		.28386		.06774		.05848		.00337		.00063		-.00132
	9.714		4.418		10.33770		-.03724		-.32484		.34973		.07972		.06806		.00308		.00038		-.00148
		GRADIENT	.00007		.94678		.01599		-.00354		.02745		.00421		.00457		.00006		-.00007		-.00007

RUN NO. 234/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.480	ALPHAC	-.060	ALPHA0	6.07355	DX	-.09631	DY	-.27927	CL	.22328	CD	.06097	CLM	.04599	CY	.00280	CYN	.00078	CBL	-.00113
	14.703		2.510		8.40095		.04960		-.33790		.29233		.06886		.05861		.00281		.00049		-.00142
	14.839		4.425		10.36750		-.09613		-.31874		.35230		.08122		.06641		.00326		.00040		-.00145
		GRADIENT	-.00038		.95454		.00318		-.00958		.02866		.00443		.00457		.00010		-.00008		-.00007

RUN NO. 235/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.767	ALPHAC	-.083	ALPHA0	6.07234	DX	-.13999	DY	-.25442	CL	.22294	CD	.06225	CLM	.04360	CY	.00242	CYN	.00070	CBL	-.00133
	29.743		2.454		8.35515		-.00939		-.21638		.29434		.07087		.05531		.00272		.00058		-.00139
	29.929		4.441		10.39440		-.17552		-.28857		.37769		.08587		.06476		.00297		.00021		-.00159
		GRADIENT	.00007		.95279		-.00517		-.00653		.03393		.00514		.00468		.00012		-.00011		-.00006

RUN NO. 236/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.538	ALPHAC	-.030	ALPHA0	6.08798	DX	.01963	DY	-.30457	CL	.22169	CD	.06317	CLM	.04238	CY	.00183	CYN	.00058	CBL	-.00143
	44.541		2.408		8.29718		-.12451		-.27163		.30012		.07212		.05370		.00194		.00042		-.00128
	44.965		4.398		10.36730		-.16344		-.27769		.39000		.08828		.06270		.00244		.00012		-.00138
		GRADIENT	.00032		.96437		-.04201		.00635		.03780		.00560		.00459		.00013		-.00010		-.00001

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ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH023) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 237/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CO	CLM	CY	CYN	CBL
49.951	-.140	.58726	5.98166	.07546	-.38741	.21572	.06328	.04147	.00190	.00062	-.00126
49.970	2.539	.58814	8.41739	-.16393	-.35672	.30726	.07338	.05418	.00219	.00048	-.00136
50.050	4.426	.58821	10.35530	-.17706	-.34245	.39120	.08888	.06216	.00197	.00015	-.00120
	GRADIENT	.00022	.95450	-.05759	.00995	.03814	.00548	.00454	.00002	-.00010	.00001

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH024) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 241/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CO	CLM	CY	CYN	CBL
2.790	.104	.58652	5.92147	-.15532	-.03671	.21137	.05803	.05095	.00309	.00073	-.00118
3.147	2.378	.58700	8.27250	-.05770	-.03732	.27816	.06517	.06208	.00379	.00067	-.00114
3.235	4.362	.58753	10.30860	-.08859	-.02095	.33817	.07668	.07124	.00296	.00034	-.00142
	GRADIENT	.00024	1.02571	.01621	.00360	.02963	.00433	.00474	-.00002	-.00009	-.00005

RUN NO. 242/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CO	CLM	CY	CYN	CBL
7.214	-.107	.58739	6.05432	-.15883	-.13415	.22446	.05906	.04878	.00334	.00077	-.00125
7.169	2.445	.58740	8.32441	-.04069	-.07016	.28003	.06615	.05961	.00388	.00075	-.00117
7.223	4.433	.58743	10.35700	-.07466	-.00760	.34450	.07819	.06931	.00366	.00043	-.00155
	GRADIENT	.00001	.94519	.02130	.02775	.02623	.00415	.00451	.00008	-.00007	-.00006

RUN NO. 243/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CO	CLM	CY	CYN	CBL
9.900	-.036	.58773	6.13824	-.18639	-.04378	.22669	.05967	.04809	.00260	.00072	-.00114
9.833	2.466	.58745	8.36642	-.00386	-.04115	.28339	.06676	.05933	.00365	.00070	-.00123
9.797	4.354	.58776	10.29090	-.10428	-.09073	.34274	.07828	.06786	.00299	.00034	-.00159
	GRADIENT	.00000	.94311	.02173	-.01008	.02624	.00416	.00450	.00011	-.00008	-.00010

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 244/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAO DX DY CL CD CLM CBL  
 .58789 6.00907 -.12109 -.00497 .21919 .05997 .04569  
 .58804 8.38433 .06072 -.02456 .28525 .06757 .05790  
 .58739 10.19090 -.02626 .04104 .34606 .07880 .06632  
 GRADIENT -.00010 .93614 .02495 .00897 .02823 .00413 .00463

RUN NO. 245/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAO DX DY CL CD CLM CBL  
 .58755 6.07204 -.10332 -.04473 .22314 .06170 .04377  
 .58755 8.35352 -.03171 -.01269 .29697 .07041 .05567  
 .58751 10.42190 -.14258 -.06341 .37666 .08545 .06496  
 GRADIENT -.00001 .95764 -.00737 -.00354 .03371 .00518 .00467

RUN NO. 246/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAO DX DY CL CD CLM CBL  
 .58586 5.98327 .01971 -.05457 .21715 .06257 .04177  
 .58578 8.30857 -.16445 -.09489 .30272 .07209 .05392  
 .58714 10.42130 -.16873 -.18341 .38995 .08821 .06241  
 GRADIENT .00027 .96813 -.04237 -.02770 .03762 .00554 .00452

RUN NO. 247/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAO DX DY CL CD CLM CBL  
 .56611 6.01605 .05285 -.02120 .22024 .06301 .04161  
 .58686 8.42955 -.20397 -.03470 .30986 .07317 .05411  
 .58763 10.32850 -.10617 -.10654 .38783 .08779 .06139  
 GRADIENT .00034 .95645 -.03952 -.01806 .03707 .00540 .00442

CY CYN CBL  
 .00291 .00076 .00134  
 .00285 .00057 .00140  
 .00359 .00046 .00176  
 .00014 -.00007 .00009  
 .00264 .00069 .00154  
 .00258 .00046 .00158  
 .00382 .00031 .00177  
 .00025 -.00008 .00005  
 .00179 .00058 .00147  
 .00230 .00041 .00170  
 .00287 .00027 .00152  
 .00023 -.00007 .00001  
 .00195 .00054 .00166  
 .00242 .00044 .00163  
 .00200 .00017 .00145  
 .00002 -.00008 .00004

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(CNH025) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

PARAMETRIC DATA

.000 STAB = -1.000  
 .000 ELEVON = .000  
 8.000 DX = .000  
 .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.209	.039	.58717	8.00091	-.09563	.11623	.31259	.06763	.05772	.00389	.00075	-.00124
7.216	2.367	.58827	10.24160	-.08863	.00464	.38355	.08245	.06638	.00350	.00040	-.00126
7.326	4.353	.58735	12.30340	-.05354	-.00023	.45958	.10451	.07264	.00479	-.00008	-.00134
	GRADIENT	.00005	.99623	.00956	-.02759	.03397	.00849	.00347	.00020	-.00019	-.00002

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.339	-.027	.58781	8.05788	-.08374	.10359	.31706	.06821	.05714	.00321	.00060	-.00149
10.040	2.372	.58810	10.31470	-.03608	.05505	.38198	.08332	.06494	.00307	.00029	-.00134
10.061	4.478	.58756	12.45100	-.07388	.02201	.47699	.10938	.07199	.00550	-.00029	-.00112
	GRADIENT	-.00005	.97434	.00260	-.01816	.03530	.00907	.00329	.00050	-.00020	.00008

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.643	-.013	.58691	8.10708	-.11966	.04505	.31718	.06914	.05606	.00371	.00062	-.00168
15.082	2.543	.58837	10.48700	-.06077	.02168	.39605	.08603	.06515	.00366	.00029	-.00176
14.801	4.374	.58726	12.33140	-.09089	-.03326	.47466	.10890	.07034	.00426	-.00038	-.00113
	GRADIENT	.00011	.96086	.00761	-.01730	.03558	.00891	.00328	.00012	-.00022	.00012

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.827	-.162	.58717	7.96542	-.13995	.04759	.31289	.07023	.05293	.00300	.00056	-.00163
30.228	2.450	.58826	10.41380	-.12322	.00837	.40182	.08858	.06247	.00318	.00026	-.00141
30.232	4.437	.58845	12.44160	-.19907	-.04902	.50327	.11728	.06721	.00428	-.00040	-.00097
	GRADIENT	.00029	.97138	-.01187	-.02070	.04102	.01007	.00313	.00027	-.00020	.00014

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.600	-.132	.58877	7.96473	-.06606	-.01682	.31097	.07126	.05116	.00281	.00056	-.00154
45.018	2.364	.58815	10.31080	-.11022	.01804	.40676	.08949	.06040	.00284	.00020	-.00155
44.806	4.412	.58767	12.38870	-.19317	-.00796	.51655	.12037	.06474	.00385	-.00038	-.00082
	GRADIENT	-.00024	.97236	-.02761	.00238	.04500	.01068	.00302	.00022	-.00021	.00015

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00 / 5.00

ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
49.823	.58747	7.83733	.02097	-.05236	.30597	.07094	.04989	.00223	.00058	-.01125
50.763	.58807	10.43110	-.09531	.03018	.41685	.09176	.06038	.00283	.00016	-.00142
50.761	.58684	12.37400	-.20688	.07273	.51974	1.2110	.06395	.00437	-.00027	-.00105
	GRADIENT	.99048	-.04939	.02759	.04639	.01075	.00313	.00045	-.00018	.00004

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0351 (OREITER DATA) (CNH027) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 261 / 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00 / 5.00

ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.310	.58593	8.02000	-.10995	.07740	.31854	.05219	.04290	.00701	-.00011	-.00224
7.309	.58706	10.17530	-.10062	.09110	.39025	.06615	.05179	.00828	-.00014	-.00236
7.865	.58635	12.29900	-.14232	.04415	.47588	.08957	.05619	.00877	-.00114	-.00220
	GRADIENT	1.00780	-.00740	-.00757	.03599	.00876	.00315	.00042	-.00024	.00001

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0351 (OREITER DATA) (CNH027) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 263 / 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00 / 5.00

ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.835	.58550	7.97637	-.17277	.10647	.32135	.05242	.04049	.00776	.00005	-.00232
9.901	.58520	10.34950	-.05317	.03987	.39715	.06798	.05003	.00726	-.00035	-.00208
9.652	.58597	12.31440	-.08957	.06373	.47653	.09008	.05384	.00931	-.00097	-.00237
	GRADIENT	.95000	.01979	-.01027	.03379	.00814	.00297	.00031	-.00022	-.00001

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

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ARC 14-120(CA238) 747/1 AT1 03S1 (ORBITER DATA)

(CNH027) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 264/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CO	CLM	CY	CYN	CBL
29.711	-161	.5852	7.95935	-.14677	.03516	.32016	.05364	.03492	.00830	-.00034	-.00275
29.841	2.529	.58531	10.44460	-.10279	.05502	.41319	.07212	.04535	.00839	-.00076	-.00240
30.092	4.385	.58590	12.37600	-.13616	.01473	.51046	.09894	.04861	.01053	-.00134	-.00229
	GRADIENT	-.00016	.96822	-.00334	-.00364	.04134	.00974	.00307	.00046	-.00022	.00010

RUN NO. 265/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CO	CLM	CY	CYN	CBL
44.673	-113	.58533	7.98864	-.08756	.00438	.32317	.05480	.03411	.00772	-.00050	-.00262
44.791	2.534	.58507	10.45630	-.09962	.06035	.42241	.07422	.04462	.00840	-.00074	-.00263
44.852	4.379	.58533	12.35100	-.18554	-.02875	.52283	.10182	.04645	.00963	-.00133	-.00215
	GRADIENT	.00002	.96849	-.02062	-.00540	.04397	.01025	.00283	.00045	-.00018	.00010

RUN NO. 266/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CO	CLM	CY	CYN	CBL
50.205	-137	.58469	7.98867	.06098	.04605	.31625	.05492	.03224	.00816	-.00029	-.00264
50.115	2.437	.58577	10.34730	-.13316	.05734	.41737	.07334	.04331	.00844	-.00073	-.00254
50.310	4.427	.58519	12.39560	-.16478	.07898	.52972	.10381	.04611	.00964	-.00136	-.00206
	GRADIENT	.00012	.96322	-.05071	.00708	.04641	.01054	.00310	.00031	-.00023	.00012

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 281/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CO	CLM	CY	CYN	CBL
3.140	2.460	.58657	8.29095	9.88371	.00383	.27650	.04962	.04146	.00829	.00018	-.00187
3.154	4.481	.58709	10.38510	9.89607	.14029	.33345	.05046	.05055	.00826	.00008	-.00228
	GRADIENT	.00026	1.03598	.00611	.06751	.02817	.00535	.00450	-.00002	-.00005	-.00020

ARC 14-120(CA238) 747/1 AT1 03S1 (ORBITER DATA)

(CNH028) ( 21 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITTER DATA)

(CMH028) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 282/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.424	ALPHAC	2.022	ALPHA0	8.14688	DX	9.89112	DY	.02441	CL	.28633	CD	.04991	CLM	.03720	CY	.00814	CYN	.00014	CBL	-.01212
	7.204	GRADIENT	4.410		10.29600		10.03350		.03213		.34279		.06683		.04606		.00801		-.00005		-.00249
					.00023		.05963		.00324		.02364		.00457		.00371		-.00005		-.00008		-.00016

RUN NO. 283/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.851	ALPHAC	2.068	ALPHA0	8.17312	DX	9.90835	DY	-.00656	CL	.28964	CD	.05022	CLM	.03572	CY	.00753	CYN	-.00008	CBL	-.00218
	9.970	GRADIENT	4.488		10.40820		9.98861		.07583		.35024		.05224		.04501		.00767		-.00023		-.00245
					.00009		.03317		.03405		.02505		.00497		.00384		.00006		-.00006		-.00011

RUN NO. 284/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.671	ALPHAC	2.026	ALPHA0	8.11471	DX	9.91614	DY	.07964	CL	.29105	CD	.05050	CLM	.03377	CY	.00748	CYN	-.00010	CBL	-.00232
	14.337	GRADIENT	4.481		10.33430		10.04080		.01744		.34995		.06249		.04297		.00735		-.00023		-.00259
					.00001		.05078		-.02534		.02399		.00488		.00375		-.00005		-.00005		-.00011

RUN NO. 285/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.878	ALPHAC	2.180	ALPHA0	8.28611	DX	9.85463	DY	.05921	CL	.30400	CD	.05358	CLM	.03368	CY	.00735	CYN	-.00025	CBL	-.00237
	29.674	GRADIENT	4.515		10.41500		9.93482		.06578		.37830		.06765		.04372		.00788		-.00041		-.00273
					.00006		.03434		.00282		.03181		.00603		.00430		.00022		-.00007		-.00016

RUN NO. 286/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.780	ALPHAC	2.093	ALPHA0	8.18310	DX	9.89025	DY	-.01014	CL	.30245	CD	.05435	CLM	.03263	CY	.00703	CYN	-.00036	CBL	-.00230
	45.100	GRADIENT	4.521		10.47830		9.85318		.09425		.39338		.07086		.04307		.00768		-.00048		-.00224
					.00008		.01527		.04299		.03745		.00680		.00430		.00026		-.00005		-.00003

RUN NO. 287/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.200	ALPHAC	2.061	ALPHA0	8.14261	DX	9.95868	DY	.05490	CL	.30621	CD	.05452	CLM	.03265	CY	.00712	CYN	-.00028	CBL	-.00237
	50.258	GRADIENT	4.539		10.46300		9.91845		.01787		.39960		.07135		.04334		.00759		-.00057		-.00239
					.00018		-.01631		-.01494		.03768		.00679		.00431		.00019		-.00012		-.00000

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 291/ 0		RN/L = 3.29		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	7.274	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	7.616	.58846	10.34390	9.93909	.03727	.38697	.06659	.04835	.00813	-.00024	-.00235
		.58807	12.41160	9.89734	.03280	.46421	.08765	.05271	.00938	-.00066	-.00289
		-.00020	1.04555	-.02111	-.00226	.03905	.01065	.00220	.00063	-.00022	-.00027
RUN NO. 292/ 0		RN/L = 3.28		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	10.037	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	10.105	.58779	10.16860	9.84159	-.01357	.38881	.06613	.04625	.00789	-.00026	-.00215
		.58837	12.43630	9.91158	.06365	.47236	.08942	.05036	.00913	-.00087	-.00265
		.00024	.93338	.02881	.03178	.03439	.00959	.00169	.00051	-.00025	-.00021
RUN NO. 293/ 0		RN/L = 3.28		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	15.073	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	14.864	.58818	10.13820	9.83260	.09566	.39230	.06660	.04412	.00763	-.00049	-.00228
		.58829	12.34200	9.91415	.05812	.47393	.08973	.04807	.00864	-.00113	-.00244
		.00005	.92115	.03409	-.01569	.03412	.00967	.00165	.00042	-.00026	-.00007
RUN NO. 294/ 0		RN/L = 3.29		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	30.231	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	29.953	.58847	10.25250	9.79538	.05260	.40908	.07047	.04290	.00769	-.00065	-.00242
		.58839	12.45730	9.85045	.04924	.50740	.09868	.04566	.00971	-.00138	-.00219
		-.00003	.92581	.02312	-.00141	.04129	.01185	.00116	.00085	-.00031	.00010
RUN NO. 295/ 0		RN/L = 3.28		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	44.559	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	45.001	.58898	10.13000	9.88695	.06428	.40655	.07092	.04194	.00769	-.00063	-.00258
		.58942	12.41470	9.82664	.13076	.52122	.10218	.04497	.00939	-.00131	-.00200
		.00019	.96844	-.02556	.02818	.04861	.01325	.00128	.00072	-.00029	.00025
RUN NO. 296/ 0		RN/L = 3.28		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	50.108	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	50.709	.58684	10.07900	9.99054	.05093	.40652	.07061	.04152	.00755	-.00045	-.00212
		.58697	12.54340	9.89004	.07529	.53118	.10498	.04488	.00935	-.00108	-.00211
		.00005	.97795	-.03988	.00967	.04947	.01364	.00133	.00072	-.00025	.00000



REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = .000 DX = 20.000  
 SCALE = .0125 DY = .600

PARAMETRIC DATA

RUN NO.	301/ 0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHA	DX	CD	CLM	CY	CYN	CBL	
7.146	10.34670	19.88150	.06709	.04287	.00768	.00001	-.00225	
7.541	12.31920	19.89100	.03786	.04592	.00816	-.00044	-.00250	
	GRADIENT	.00027	.00999	.00162	.00025	-.00023	-.00013	
		.00505	.03686					
RUN NO.	302/ 0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHA	DX	CD	CLM	CY	CYN	CBL	
10.020	10.13010	19.84880	.05622	.04164	.00775	-.00007	-.00231	
10.077	12.43730	19.90010	.02053	.04502	.00809	-.00063	-.00281	
	GRADIENT	-.00023	.03098	.00137	.00014	-.00022	-.00020	
		.02074	.00888					
RUN NO.	303/ 0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHA	DX	CD	CLM	CY	CYN	CBL	
14.887	10.26770	19.84270	.06773	.04013	.00753	-.00019	-.00223	
14.608	12.34570	19.92050	.08864	.04401	.00817	-.00064	-.00288	
	GRADIENT	.00046	.03311	.00171	.00028	-.00020	-.00029	
		.03430	.00922					
RUN NO.	304/ 0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHA	DX	CD	CLM	CY	CYN	CBL	
30.123	10.05950	19.88270	.06822	.04006	.00733	-.00040	-.00239	
29.781	12.46690	19.93250	.09737	.04328	.00916	-.00112	-.00214	
	GRADIENT	-.00116	.01991	.00123	.00070	-.00027	-.00010	
		.01904	.01115					
RUN NO.	305/ 0	RN/L = 3.29	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHA	DX	CD	CLM	CY	CYN	CBL	
44.889	10.16970	19.86300	.07095	.04092	.00715	-.00067	-.00238	
44.724	12.35030	19.89900	.09819	.04343	.00897	-.00117	-.00225	
	GRADIENT	-.00026	.01349	.00108	.00078	-.00021	-.00006	
		-.00171	.04076					
RUN NO.	306/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00	CL	CLM	CY	CYN	CBL
DZ	ALPHA	DX	CD	CLM	CY	CYN	CBL	
50.425	10.15600	19.92850	.07119	.04105	.00747	-.00048	-.00236	
50.408	12.37800	19.89900	.08025	.04340	.00912	-.00124	-.00216	
	GRADIENT	.00020	.03673	.00100	.00070	-.00032	-.00008	
		-.01255	.04872					

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ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(CNH031) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.139	2.440	.58609	8.31512	19.87130	.05947	.28708	.05164	.03113	.00712	.00015	.00192
7.034	4.374	.58715	10.27020	19.92830	.09448	.34350	.06194	.03918	.00707	.00006	.00243
	GRADIENT	.00054	1.01066	.02947	.01809	.02916	.00532	.00416	-.00002	-.00011	-.00026

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.707	1.989	.58702	8.07854	19.90690	.06734	.28961	.05097	.02975	.00716	.00007	.00202
9.890	4.549	.58632	10.45100	19.96030	.05123	.35390	.06390	.03910	.00713	-.00010	.00245
	GRADIENT	-.00027	.92663	.02086	-.00629	.02511	.00505	.00365	-.00001	-.00007	-.00017

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.857	1.961	.58709	8.08432	19.86250	.07407	.29248	.05155	.02932	.00709	.00006	.00194
14.654	4.524	.58711	10.40250	19.96860	.01904	.35787	.06419	.03843	.00743	-.00002	.00267
	GRADIENT	.00001	.90449	.04140	-.02147	.02551	.00493	.00355	.00013	-.00003	-.00028

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.665	1.982	.58708	8.07297	19.93210	.07184	.29951	.05319	.03059	.00727	-.00017	.00226
29.802	4.262	.58717	10.17670	19.97520	.06091	.36914	.06586	.03958	.00652	-.00048	.00225
	GRADIENT	.00004	.92264	.01890	-.00479	.03054	.00555	.00394	-.00033	-.00014	.00001

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.676	1.970	.58721	8.03821	19.92050	.09661	.30088	.05368	.03081	.00671	-.00024	.00211
44.732	4.370	.58687	10.28860	19.89040	.06355	.38621	.06895	.04134	.00733	-.00046	.00253
	GRADIENT	-.00014	.93786	-.01254	-.01378	.03556	.00636	.00439	.00026	-.00009	-.00017

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.207	2.003	.58699	8.08618	20.01850	.01577	.30402	.05432	.03109	.00647	-.00025	.00218
50.098	4.371	.58709	10.27800	19.99160	.02241	.38617	.06821	.04137	.00691	-.00056	.00245
	GRADIENT	.00004	.92546	-.01136	.00280	.03469	.00629	.00434	.00018	-.00013	-.00011

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(CNH032) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 321/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.217	2.384	8.24764	-.07736	10.15720	.28568	.04784	.04600	.00677	-.00184	-.00421
3.310	4.324	10.25180	-.08334	10.05880	.34156	.05765	.05663	.00695	-.00274	-.00691
	GRADIENT		.00044	-.00308	.02880	.00506	.00548	.00009	-.00046	-.00139

RUN NO. 322/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.247	1.999	8.08363	-.11409	10.15740	.29165	.04850	.04087	.00613	-.00132	-.00389
7.563	4.379	10.31420	-.03860	10.16020	.35310	.05995	.05134	.00557	-.00210	-.00586
	GRADIENT		-.00005	.03171	.02581	.00481	.00440	-.00024	-.00033	-.00082

RUN NO. 323/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.032	1.980	8.10072	-.16247	10.08520	.29022	.04926	.03983	.00647	-.00113	-.00361
9.896	4.367	10.27970	-.02661	10.13390	.35042	.06013	.05030	.00523	-.00225	-.00560
	GRADIENT		-.00003	.05691	.02522	.00455	.00439	-.00052	-.00047	-.00083

RUN NO. 324/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.217	2.049	8.18816	-.19638	10.14070	.29550	.05037	.03911	.00642	-.00108	-.00362
15.047	4.248	10.19140	-.07071	10.08630	.35670	.06120	.04911	.00549	-.00206	-.00526
	GRADIENT		.00021	.05713	.02782	.00492	.00454	-.00042	-.00044	-.00075

RUN NO. 325/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.998	1.976	8.07435	-.18575	10.15200	.29942	.05230	.03635	.00679	-.00063	-.00302
29.890	4.301	10.22550	-.12371	10.08960	.37419	.06587	.04723	.00638	-.00128	-.00407
	GRADIENT		.00011	.02668	.03216	.00584	.00468	-.00018	-.00028	-.00045

RUN NO. 326/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.648	1.958	8.02243	-.07292	10.12630	.30031	.05321	.03447	.00634	-.00068	-.00261
44.989	4.325	10.27170	-.12245	10.14780	.38565	.06868	.04550	.00622	-.00112	-.00329
	GRADIENT		.00026	.02093	.03606	.00654	.00466	-.00005	-.00018	-.00029

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(CNH032)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 327/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	CL	CD	CLM	CY	CYN	CBL
49.978	1.969	.58820	8.02344	-.02053	.30169	.05377	.03416	.00663	-.00060	-.00273
50.163	4.264	.58920	10.19110	-.04478	.38846	.06896	.04503	.00631	-.00101	-.00306
	GRADIENT	.00044	.94453	-.01056	.03781	.00662	.00474	-.00014	-.00018	-.00015

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(CNH033) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 331/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	CL	CD	CLM	CY	CYN	CBL
7.500	2.446	.58922	10.34440	-.06667	.39497	.06551	.05164	.00569	-.00180	-.00518
7.613	4.292	.58876	12.27760	-.14319	.46999	.08568	.05690	.00540	-.00238	-.00741
	GRADIENT	-.00025	1.04761	-.04147	.04065	.01093	.00285	-.00016	-.00032	-.00121

RUN NO. 332/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	CL	CD	CLM	CY	CYN	CBL
10.263	1.907	.58952	10.03580	-.22873	.38869	.06413	.04940	.00614	-.00147	-.00427
9.859	4.322	.58910	12.24310	-.09624	.47119	.08655	.05540	.00577	-.00230	-.00652
	GRADIENT	-.00017	.91395	.05486	.03416	.00928	.00248	-.00015	-.00034	-.00093

RUN NO. 333/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	CL	CD	CLM	CY	CYN	CBL
15.012	1.933	.58891	10.03310	-.19577	.38793	.06455	.04784	.00675	-.00133	-.00412
14.957	4.327	.58912	12.27130	-.10228	.47925	.08911	.05349	.00640	-.00224	-.00568
	GRADIENT	.00009	.93488	.03905	.03814	.01026	.00236	-.00015	-.00038	-.00065

RUN NO. 334/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	CL	CD	CLM	CY	CYN	CBL
29.834	1.958	.58943	10.02860	-.19612	.39764	.06733	.04610	.00732	-.00092	-.00322
29.957	4.362	.58888	12.31310	-.15654	.51001	.09724	.05047	.00757	-.00217	-.00339
	GRADIENT	-.00023	.95016	.01563	.01061	.01244	.00182	.00010	-.00052	-.00007

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 335/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
.58683	9.93220	-.17406	10.09900	.39959	.06814	.04451	.00704	-.00111	-.01285
.58661	12.24790	-.20324	10.09270	.51609	.09902	.04840	.00844	-.00176	-.00316
-.00009	.96232	-.01213	-.00262	.04841	.01283	.00162	.00058	-.00027	-.00013

RUN NO. 336/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
.58788	9.94862	-.10542	10.11940	.39899	.06824	.04386	.00730	-.00093	-.00275
.58739	12.23090	-.17171	10.08420	.51696	.09911	.04743	.00865	-.00153	-.00296
-.00021	.97225	-.02824	-.01500	.05025	.01315	.00152	.00058	-.00026	-.00009

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 341/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
.58648	5.90009	-.06742	.00578	.21432	.04057	.03953	.01030	-.00053	-.00184
.58717	8.09199	-.04621	.02682	.27220	.04671	.05106	.00987	-.00058	-.00187
.58774	10.13540	-.02054	-.00171	.32834	.05691	.06112	.00978	-.00070	-.00226
.00029	.98649	.01088	-.00147	.02655	.00378	.00503	-.00012	-.00004	-.00009

RUN NO. 342/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
.58815	6.04215	-.10713	-.00757	.22552	.04092	.03872	.00874	-.00050	-.00196
.58765	8.16733	-.06245	-.06245	.27436	.04690	.04957	.00940	-.00031	-.00209
.58723	10.29310	-.04005	-.00326	.33442	.05802	.05982	.00910	-.00057	-.00268
-.00020	.94601	.01901	.00016	.02416	.00377	.00470	.00009	-.00001	-.00016

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

(CNH034) ( 21 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

(CNH034) ( 21 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(CNH034) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 343/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.400	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	7.390		.58717	5.90381	-.13205	-.02328	.22384	.04106	.03297	.00905	-.00047	-.00227
	7.046		.58697	8.21305	-.07014	-.04725	.28297	.04809	.04467	.00862	-.00052	-.00229
		GRADIENT	.58774	10.11280	-.00640	-.04352	.33660	.05792	.05466	.00855	-.00062	-.00270
			.00012	.93327	.03090	-.00478	.02494	.00369	.00480	-.00011	-.00003	-.00009

RUN NO. 344/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.858	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	9.870		.58774	5.93582	-.13020	-.02468	.22465	.04095	.03071	.00873	-.00043	-.00244
	9.840		.58683	8.23296	-.06279	-.03964	.28357	.04865	.04267	.00859	-.00052	-.00234
		GRADIENT	.58677	10.19170	-.05789	-.06921	.34570	.05941	.05312	.00845	-.00072	-.00284
			-.00022	.94365	.01935	-.00968	.02670	.00404	.00497	-.00006	-.00006	-.00008

RUN NO. 345/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.745	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	14.663		.58763	5.91142	-.11810	-.04966	.22241	.04154	.02715	.00858	-.00056	-.00239
	14.715		.58572	8.21363	-.06055	-.05815	.28671	.04917	.03965	.00860	-.00060	-.00246
		GRADIENT	.58738	10.17930	-.07864	-.07945	.35060	.06058	.05015	.00854	-.00062	-.00273
			-.00007	.94469	.01218	-.00643	.02827	.00416	.00509	-.00001	-.00001	-.00007

RUN NO. 346/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.743	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	29.911		.58604	5.88621	-.08203	-.00339	.22355	.04316	.02395	.00880	-.00056	-.00273
	29.627		.58747	8.27416	-.02282	-.04821	.30197	.05229	.03866	.00378	-.00049	-.00261
		GRADIENT	.58710	10.16430	-.09565	-.10290	.37140	.06469	.04759	.00821	-.00102	-.00283
			.00025	.94540	-.00039	-.02165	.03243	.00467	.00524	-.00012	-.00009	-.00002

RUN NO. 347/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.607	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
	44.784		.58716	5.90152	-.00966	-.05370	.22227	.04348	.02276	.00784	-.00080	-.00269
	44.631		.58716	8.25624	-.13594	-.05628	.30628	.05372	.03694	.00807	-.00071	-.00263
		GRADIENT	4.291	10.22080	-.15327	.01683	.38674	.06765	.04643	.00782	-.00102	-.00245
			.00011	.95215	-.03264	.01471	.03614	.00527	.00525	.00000	-.00004	.00005

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.000004 .95296 .03755 .00531 .00533 .00011 .000004 .000000

RUN NO. 348/ 0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
49.960	-.239	.58785	5.88468	.08819	.01479	-.21847	.04386	.02213	.00780	-.00065	-.00233
50.084	2.361	.58817	8.25858	-.16437	-.02815	.30921	.05396	.03673	.00797	-.00060	-.00259
50.051	4.269	.58761	10.19200	-.16268	-.05749	.38849	.06820	.04610	.00830	-.00086	-.00268
	GRADIENT	-.000004	.95296	-.05808	-.01606	.03755	.00531	.00533	.00011	-.00004	-.00008

RUN NO. 349/ 0		RN/L = 3.31		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
61.655	-.279	.58759	5.85348	.11728	-.13288	-.21722	.04405	.02170	.00777	-.00056	-.00225
61.629	2.289	.58818	8.18336	-.12258	.00830	.31168	.05439	.03605	.00778	-.00070	-.00248
61.640	4.275	.58756	10.20200	-.15863	-.09148	.39577	.06965	.04490	.00776	-.00083	-.00214
	GRADIENT	.00000	.95272	-.05384	.01129	.03909	.00555	.00512	-.00000	-.00006	-.00002

RUN NO. 351/ 0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.392	.007	.58697	3.99746	-.07524	.05360	.11446	.03597	.02793	.00754	-.00010	-.00204
3.273	2.270	.58780	6.14693	-.03598	.12459	.17421	.03882	.03472	.00704	-.00012	-.00193
3.233	4.244	.58795	8.16058	-.04991	.01675	.23506	.04474	.04348	.00675	-.00016	-.00197
	GRADIENT	.00023	.98179	.00625	-.00773	.02841	.00205	.00365	-.00019	-.00001	-.00002

RUN NO. 352/ 0		RN/L = 3.29		GRADIENT INTERVAL = -5.00/ 5.00							
DZ	ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.633	-.212	.58702	4.00651	-.18854	.04314	.12359	.03675	.02283	.00755	-.00003	-.00217
7.582	2.387	.58736	6.30510	-.09734	.06432	.18594	.03971	.03020	.00691	-.00001	-.00201
7.362	4.282	.58712	8.22000	-.03484	.07605	.24321	.04604	.03886	.00617	-.00024	-.00207
	GRADIENT	.00003	.93448	.03651	.00737	.02646	.00201	.00352	-.00030	-.00004	-.00002

ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

(CNH035) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LOFB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.664	.58769	3.95156	-.11309	.11144	.12407	.03675	.02065	.00723	.00004	-.00212
9.916	.58803	6.21534	.11618	.06173	.19182	.04006	.02823	.00690	.00010	-.00215
9.803	.58849	8.18827	-.02549	.09580	.25062	.04658	.03780	.00648	-.00009	-.00222
	.00018	-.94488	.02304	-.0042E	.02823	.00215	.00379	-.00017	-.00003	-.00002
RUN NO. 353/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00										
ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.113	.58842	3.94923	-.18325	.04406	.12746	.03750	.01758	.00728	-.00002	-.00239
14.808	.58832	6.21535	-.05927	.08345	.19579	.04118	.02599	.00653	-.00026	-.00231
14.693	.58828	8.22508	-.07338	.00995	.25789	.04797	.03594	.00643	-.00009	-.00214
	-.00003	.93174	.02522	-.00631	.02841	.00225	.00397	-.00019	-.00002	.00005
RUN NO. 354/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00										
ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.891	.58946	3.91348	-.06585	.08920	.12538	.03875	.01416	.00668	-.00016	-.00236
29.979	.58900	6.26241	-.11845	.05612	.20908	.04387	.02378	.00645	-.00013	-.00230
29.891	.58907	8.23413	-.17999	.07042	.27759	.05163	.03522	.00587	-.00037	-.00226
	-.00009	.94363	.02473	-.00459	.03326	.00277	.00456	-.00017	-.00004	.00002
RUN NO. 355/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00										
ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.449	.58792	3.85960	.06793	.09655	.12679	.03949	.01315	.00609	-.00037	-.00226
44.799	.58850	6.23703	-.14780	.04817	.21326	.04542	.02268	.00543	-.00044	-.00230
44.865	.58890	8.20431	-.19731	.00498	.28953	.05371	.03397	.00548	-.00058	-.00246
	.00022	.95651	-.05989	-.02012	.03577	.00309	.00454	-.00014	-.00004	-.00004



REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
1.654	2.302	8.14588	-0.3672	.21706	.27620	.04845	.04960	.00937	-.00065	-.01223
2.469	4.194	10.19350	-.16900	.21141	.33466	.05925	.05892	.00906	-.00060	-.00269
	GRADIENT	1.09483	-.06991	-.00299	.03090	.00571	.00493	-.00016	.00003	-.00024

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.877	2.012	8.04539	-.10843	.16706	.27902	.04654	.04786	.00873	-.00055	-.00221
3.365	4.405	10.31600	-.07058	.17088	.34033	.05014	.05813	.00924	-.00044	-.00263
	GRADIENT	.94906	.01582	.00160	.02563	.00485	.00430	.00022	.00004	-.00018

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.393	2.013	8.11744	-.10956	.22780	.29090	.04963	.04322	.00927	-.00020	-.00247
7.226	4.376	10.26970	.01898	.18695	.34881	.06111	.05316	.00915	-.00047	-.00294
	GRADIENT	.91080	.05440	-.01729	.02451	.00486	.00421	-.00005	-.00011	-.00020

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.858	2.049	8.14182	-.11920	.21021	.29125	.05015	.04064	.00932	-.00007	-.00241
10.104	4.457	10.39220	-.04720	.16889	.35762	.06287	.05139	.00854	-.00057	-.00279
	GRADIENT	.93734	.02990	-.01716	.02756	.00528	.00447	-.00032	-.00021	-.00016

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.553	2.097	8.15599	-.09596	.20236	.29493	.05119	.03858	.00915	-.00021	-.00238
14.643	4.474	10.35753	-.02118	.12947	.36470	.06411	.04933	.00877	-.00053	-.00288
	GRADIENT	.93034	.03146	-.03066	.02935	.00544	.00452	-.00016	-.00014	-.00021

DZ	ALPHAC	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.819	2.159	8.24139	-.17520	.17624	.31089	.05390	.03685	.00854	-.00041	-.00264
29.992	4.411	10.35100	-.14877	.11332	.38518	.06953	.04638	.00884	-.00063	-.00300
	GRADIENT	.93709	.01174	-.02795	.03344	.00650	.00423	.00014	-.00010	-.00016

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

(CNH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 367/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.057	2.052	.58538	8.16577	-.12614	.16956	.30926	.05542	.03415	.00843	-.00043	-.00250
44.937	4.371	.58637	10.31880	-.09769	.15247	.39619	.07086	.04493	.00887	-.00064	-.00272
	GRADIENT	.00043	.92837	.01227	-.00737	.03749	.00666	.00465	.00019	-.00009	-.00009

RUN NO. 368/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.129	2.015	.58474	8.08551	-.04310	.16630	.30470	.05523	.03278	.00836	-.00028	-.00237
50.420	4.439	.58435	10.37690	-.11005	.15838	.40637	.07266	.04452	.00860	-.00090	-.00270
	GRADIENT	-.00016	.94516	-.02761	-.00327	.04194	.00719	.00484	.00010	-.00025	-.00013

RUN NO. 369/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
62.057	2.140	.58502	8.24539	-.02430	.13774	.32048	.05677	.03427	.00811	-.00026	-.00253
61.853	4.416	.58414	10.35040	-.04193	.12725	.40517	.07308	.04310	.00858	-.00062	-.00262
	GRADIENT	-.00039	.92457	-.00774	-.00461	.03720	.00716	.00388	.00021	-.00016	-.00004

ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

(CNH037) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 371/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
1.955	.521	.58987	6.33729	-.10766	.09365	.22703	.04173	.04124	.00794	-.00023	-.00185
1.879	2.297	.59307	8.24052	-.10093	.06646	.27758	.04797	.05128	.00763	-.00047	-.00214
1.932	4.335	.59089	10.27080	-.12705	.05405	.33353	.05826	.06093	.00826	-.00054	-.00229
	GRADIENT	.00027	1.03052	-.00527	-.01028	.02791	.00435	.00515	.00009	-.00008	-.00011

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .93441 .03630 -.00723 .02376 .00369 .00468 DY = .000 MACH = .600

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.611	-.073	.59019	6.14149	-.14594	.16043	.22934	.04190	.03841	.00940	.00015	-.07208
3.412	2.415	.59040	8.31124	.11055	.13546	.27806	.04811	.04954	.00844	-.00028	-.00215
3.341	4.372	.59036	10.30810	.00163	.12886	.33584	.05856	.05926	.00881	-.00025	-.00240
	GRADIENT	.00004	.93441	.03630	-.00723	.02376	.00369	.00468	-.00014	-.00009	-.00007

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.238	-.184	.58959	5.97655	-.08660	.09567	.22502	.04143	.03204	.00884	.00011	-.00226
7.611	2.515	.58950	8.43460	.05996	.12690	.28920	.04933	.04527	.00893	-.00008	-.00246
7.497	4.363	.58887	10.32400	-.04563	.04585	.34817	.06017	.05482	.00803	-.00056	-.00289
	GRADIENT	-.00015	.95292	.01233	-.00931	.02685	.00403	.00500	-.00016	-.00009	-.00013

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.003	-.096	.58840	6.09035	-.12387	.09762	.23080	.04199	.03035	.00867	.00020	-.00222
9.942	2.401	.58937	8.31062	.06698	.12280	.28432	.04898	.04239	.00781	-.00024	-.00232
10.030	4.474	.58833	10.42890	-.06324	.09804	.35570	.06166	.05323	.00816	-.00050	-.00290
	GRADIENT	.00001	.94747	.01539	.00043	.02714	.00425	.00500	-.00012	-.00006	-.00015

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.990	.036	.58910	6.22162	-.14126	.13141	.23588	.04289	.02813	.00855	.00012	-.00232
14.729	2.374	.58974	8.27672	.05569	.06667	.28601	.04977	.03923	.00843	-.00024	-.00246
14.795	4.458	.58844	10.39350	-.06647	.08480	.35913	.06260	.05029	.00759	-.00077	-.00274
	GRADIENT	-.00014	.94208	.01827	-.01089	.02774	.00443	.00501	.00021	-.00014	-.00009

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.795	-.037	.58885	6.11690	-.12939	.12231	.23327	.04415	.02418	.00813	.00023	-.00247
29.929	2.359	.58821	8.28595	-.02203	.11292	.29883	.05265	.03693	.00810	-.00027	-.00247
30.138	4.506	.58919	10.47950	-.18963	.08067	.38686	.06831	.04836	.00815	-.00066	-.00257
	GRADIENT	.00007	.95931	-.01215	-.00906	.03369	.00529	.00532	.00001	-.00009	-.00002

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(CNH037) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STA3 = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 377/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.027	.096	.58823	6.08589	-.04783	.07474	.22242	.04476	.02145	.00787	-.00041	-.00255
44.952	2.497	.58995	8.42205	-.25301	.08694	.31475	.05521	.03737	.00811	-.00039	-.00261
44.914	4.260	.58874	10.22770	-.09599	.12210	.39070	.06887	.04535	.00803	-.00078	-.00256
GRADIENT	.00016	.94708	.94708	-.01614	.01041	.03840	.00542	.00554	.00004	-.00008	-.00000

RUN NO. 378/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.481	.036	.58791	6.20814	-.01251	.05409	.23819	.04564	.02270	.00758	-.00037	-.00244
50.592	2.316	.58759	8.27754	-.24803	.13582	.30917	.05496	.03533	.00776	-.00042	-.00235
50.369	4.524	.58783	10.47610	-.19505	.10327	.40389	.07197	.04578	.00745	-.00101	-.00236
GRADIENT	-.00002	.95062	.95062	-.04101	.01109	.03688	.00586	.00514	-.00003	-.00014	-.00002

RUN NO. 379/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
61.632	-.013	.58735	6.10612	.14628	.12051	.23286	.04580	.02153	.00734	-.00059	-.00241
61.965	2.379	.58707	8.32028	-.22930	.09946	.31321	.05588	.03454	.00730	-.00052	-.00247
61.651	4.408	.58790	10.33570	-.20140	.09337	.40256	.07175	.04442	.00731	-.00086	-.00239
GRADIENT	.00012	.95573	.95573	-.08096	-.00622	.03824	.00582	.00519	-.00001	-.00006	-.00000

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(CNH038) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 381/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
1.603	.046	.58938	5.98392	-.16713	.08333	.31166	.05265	-.00114	.00478	.00083	-.00087
1.569	2.293	.58924	8.13110	.04218	.10096	.37096	.06214	.00948	.00478	.00070	-.00098
2.306	4.387	.58902	10.37170	-.12686	.08546	.43733	.07787	.01799	.00452	.00068	-.00151
GRADIENT	-.00008	1.01018	1.01018	.01030	.00058	.02892	.00579	.00441	-.00006	-.00004	-.00015

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITTER DATA)

(CNH038) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .000

RUN NO. 382/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.468	.019	.58937	6.20728	-.19716	.10115	.32795	.05241	-.00189	.00470	.00100	-.00094
3.699	2.422	.58831	8.36194	-.01894	.08953	.37921	.06271	-.00720	.00473	.00101	-.00112
3.469	4.425	.58815	10.37440	-.08950	.05348	.44108	.07812	.01573	.00002	.00098	-.00152
	GRADIENT	-.00028	.94428	.02607	-.01062	.02554	.00579	.00399	.00000	-.00000	-.00013

RUN NO. 383/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.736	-.027	.58823	6.18939	-.22961	.06087	.33115	.05315	-.00849	.00424	.00107	-.00112
6.902	2.422	.58845	8.27053	.07916	.08816	.38272	.06297	.00202	.00446	.00122	-.00137
7.339	4.419	.58629	10.35840	-.08920	.03323	.45524	.07976	.01009	.00415	.00107	-.00184
	GRADIENT	-.00042	.93444	.03510	.00742	.02766	.00591	.00418	-.00001	.00000	-.00016

RUN NO. 384/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.309	.047	.58749	6.26151	-.23948	.08783	.33349	.05408	-.01114	.00429	.00122	-.00123
9.703	2.409	.58687	8.30010	.02282	.05753	.38797	.06426	-.00068	.00434	.00126	-.00146
10.031	4.489	.58640	10.44550	-.12841	.04705	.45945	.08115	.00774	.00399	.00113	-.00174
	GRADIENT	-.00025	.94000	.02694	-.00926	.02823	.00605	.00425	-.00007	-.00002	-.00011

RUN NO. 385/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.037	-.141	.58573	6.06450	-.12720	.01465	.32158	.05365	-.01488	.00460	.00122	-.00132
14.866	2.495	.58615	8.39330	.08175	.07175	.39532	.06578	-.00247	.00436	.00130	-.00156
14.876	4.418	.58601	10.36830	-.05165	.07290	.46563	.08237	.00570	.00418	.00128	-.00174
	GRADIENT	.00007	.94052	.02032	.01331	.03138	.00620	.00453	-.00009	.00001	-.00009

RUN NO. 386/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.004	-.165	.58574	6.01263	-.11334	.09307	.32803	.05482	-.01562	.00426	.00115	-.00144
29.816	2.497	.58734	8.40355	.03463	.06951	.40780	.06858	-.00464	.00382	.00113	-.00152
30.280	4.402	.58719	10.40330	-.16387	.04147	.48254	.08693	.00295	.00404	.00122	-.00174
	GRADIENT	.00011	.95746	-.00681	-.01114	.03359	.00691	.00430	-.00006	.00001	-.00006

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(CNH038) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 387/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CO	CLM	CY	CYN	CBL
44.879	.070	.58566	6.21183	-.10694	.06776	.33181	.05680	-.01682	.00410	.00111	-.00138
44.946	2.481	.58561	8.42103	-.06122	.08432	.41042	.07035	-.00588	.00410	.00123	-.00158
44.926	4.448	.58586	10.41200	-.21870	.01982	.49727	.08958	.00149	.00329	.00092	-.00170
	GRADIENT	-.00018	.95780	-.02388	-.01029	.03760	.00742	.00420	-.00018	-.00004	-.00007

RUN NO. 388/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CO	CLM	CY	CYN	CBL
49.971	-.037	.58490	6.07965	.11060	.11843	.32644	.05625	-.01774	.00365	.00084	-.00157
50.192	2.513	.58441	8.42727	-.18012	.08470	.41671	.07082	-.00607	.00377	.00108	-.00164
50.609	4.284	.58442	10.28530	-.17500	.09634	.49599	.08929	.00060	.00395	.00109	-.00170
	GRADIENT	-.00012	.96964	-.06945	-.00568	.03897	.00751	.00427	.00007	.00005	-.00003

RUN NO. 389/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CO	CLM	CY	CYN	CBL
61.515	-.115	.58473	5.98804	.12903	.11916	.31440	.05623	-.01948	.00415	.00106	-.00155
60.520	2.529	.58435	8.29901	-.09098	.07553	.41051	.07023	-.00750	.00373	.00115	-.00161
	GRADIENT	-.00014	.87406	-.08321	-.01650	.03635	.00530	.00453	-.00016	.00003	-.00002

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 391/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHAO	DX	DY	CL	CO	CLM	CY	CYN	CBL
3.148	2.388	.59047	8.22485	-.06687	.05722	.36247	.08054	.02639	.00491	.00116	-.00074
3.390	4.263	.59098	10.21090	-.04503	-.00654	.42507	.09540	.03359	.00384	.00075	-.00111
	GRADIENT	.00027	1.05936	.01165	-.03401	.03339	.00793	.00384	-.00057	-.00022	-.00019

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH039) ( 08 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = 10.000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 6.000 DX = .000  
 SCALE = .0125 .04230 .93122 .04230 .02417 .03060 .00724 .00354 .00009 .00000 MACH = .600

PARAMETRIC DATA  
 RUN NO. 392/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA CD CL CLM CY CYN CBL  
 .58972 8.21903 .14187 .10762 .37260 .08188 .02330 .00500 .00124 -.00095  
 .58997 10.38090 .04368 .05150 .44364 .09870 .03152 .00522 .00084 -.00164  
 .00011 .93122 .04230 .02417 .03060 .00724 .00354 .00009 .00017 -.00029

RUN NO. 393/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA CD CL CLM CY CYN CBL  
 .59034 8.09911 .16160 .06343 .37205 .08175 .02198 .00459 .00116 -.00102  
 .59082 10.36610 .07507 .05245 .43796 .09876 .02962 .00452 .00084 -.00137  
 .00020 .93579 .03572 .00453 .02721 .00702 .00315 -.00003 -.00013 -.00015

RUN NO. 394/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA CD CL CLM CY CYN CBL  
 .59086 8.24803 .19875 .05544 .37881 .08371 .02112 .00422 .00111 -.00102  
 .59122 10.35730 .08338 .06210 .44568 .10027 .02874 .00451 .00085 -.00146  
 .00015 .92040 .05034 .00290 .02918 .00723 .00332 .00013 -.00011 -.00019

RUN NO. 395/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA CD CL CLM CY CYN CBL  
 .59148 8.11938 .12810 .09299 .38078 .08524 .01843 .00378 .00101 -.00121  
 .59148 10.41400 .07450 .08848 .47572 .10606 .02715 .00402 .00068 -.00158  
 .00055 .93683 .02188 .00184 .03876 .00850 .00356 .00010 -.00013 -.00015

RUN NO. 396/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA CD CL CLM CY CYN CBL  
 .59075 8.20736 .08759 .08082 .39120 .08750 .01751 .00369 .00094 -.00134  
 .59139 10.31290 .11783 .05913 .47703 .10699 .02419 .00435 .00072 -.00162  
 .00074 .95382 .01370 .00983 .03888 .00683 .00302 .00030 -.00010 -.00013

RUN NO. 397/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA CD CL CLM CY CYN CBL  
 .59078 8.20360 .01339 .05846 .39125 .08776 .01682 .00345 .00094 -.00122  
 .59084 10.36870 .06019 .05556 .48273 .10839 .02338 .00363 .00061 -.00142  
 .00003 .95258 .02059 .00128 .04025 .00908 .00289 .00008 -.00014 -.00009

ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA) (CMH040) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
LORB = .000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 401/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.048	-.004	.58575	3.94885	-.03013	.02300	.19222	.06234	.01055	.00391	.09135	-.00058
3.021	2.318	.58650	6.16485	-.00823	.03102	.25564	.06763	.01730	.00403	.00120	-.00060
3.274	4.401	.58596	8.32227	-.08030	.03823	.31652	.07662	.02529	.00434	.00119	-.00067
	GRADIENT	.00005	.99210	-.01099	.00345	.02820	.00322	.00334	.00010	-.00004	-.00002

RUN NO. 402/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.066	-.091	.58578	4.06526	-.06533	.03074	.20452	.06362	.00754	.00381	.00122	-.00088
7.198	2.490	.58717	6.36184	-.05879	.03128	.26376	.06944	.01423	.00365	.00116	-.00072
7.335	4.405	.58721	8.33848	-.06649	.00535	.32169	.07766	.02245	.00372	.00110	-.00072
	GRADIENT	.00033	.94695	-.00010	-.00532	.02588	.00308	.00327	-.00002	-.00003	-.00004

RUN NO. 403/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.793	.024	.58614	4.20285	-.10758	.02801	.21029	.06432	.00651	.00446	.00137	-.00093
9.766	2.449	.58677	6.34048	-.05513	.03665	.26860	.07001	.01356	.00399	.00125	-.00082
9.745	4.293	.58746	8.21470	-.10482	.00220	.32267	.07789	.02110	.00385	.00112	-.00087
	GRADIENT	.00031	.93678	.00172	-.00556	.02621	.00314	.00339	-.00015	-.00006	-.00001

RUN NO. 404/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.781	-.155	.58614	4.02957	-.08900	.00993	.20015	.06452	.00358	.00345	.00124	-.00113
14.685	2.568	.58672	6.43765	-.05953	-.02169	.27665	.07135	.01272	.00345	.00111	-.00080
14.592	4.303	.58737	8.22819	-.04039	-.03747	.33145	.07943	.02040	.00313	.00101	-.00078
	GRADIENT	.00027	.93666	.01090	-.01073	.02933	.00327	.00373	-.00006	-.00005	-.00008

RUN NO. 405/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.804	-.120	.58585	4.05111	-.13448	.00963	.20108	.06614	.00120	.00321	.00118	-.00135
29.944	2.563	.58784	6.47107	-.04528	.04981	.28989	.07428	.01096	.00370	.00116	-.00112
29.835	4.329	.58681	8.27311	-.13744	-.04093	.34801	.08344	.01819	.00257	.00098	-.00091
	GRADIENT	.00026	.94525	.00487	-.00921	.03304	.00382	.00380	-.00012	-.00004	-.00010



REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 406/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.515	.58600	4.04059	.03455	.03143	.20113	.06711	.00023	.00297	.00117	-.00123
44.728	.58754	6.34838	-.15179	.02644	.28973	.07549	.00905	.00306	.00106	-.00103
44.671	.58637	8.39585	-.16764	-.03328	.37129	.08681	.01819	.00294	.00098	-.00108
	.00010	.95184	-.04547	-.01357	.03716	.00427	.00391	-.00001	-.00004	.00003

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 411/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.328	.48953	6.15134	-.08804	-.17940	.24904	.06741	.01613	.00399	.00121	-.00052
3.325	.48981	8.23496	-.05681	-.16385	.30889	.07573	.02348	.00374	.00106	-.00052
	.00013	.96420	.01445	.00720	.02770	.00385	.00340	-.00012	-.00007	-.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .500

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 412/ 0 RN/L = 2.96 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
6.838	.48940	6.09329	-.09292	-.16145	.25617	.06852	.01371	.00363	.00108	-.00085
7.184	.48957	8.36195	-.05746	-.16305	.31771	.07770	.02117	.00358	.00102	-.00063
	.00007	.96379	.01507	-.00068	.02615	.00390	.00317	-.00002	-.00002	.00009

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .500

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 413/ 0 RN/L = 2.98 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	MACH	ALPHA0	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.770	.48931	6.27786	-.14676	-.13953	.26222	.06960	.01260	.00261	.00099	-.00057
9.780	.48962	8.40798	-.05126	-.15367	.32312	.07875	.02039	.00341	.00102	-.00069
	.00013	.94601	.04241	-.00672	.02704	.00406	.00346	.00036	.00001	-.00005

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .500

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ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH041) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .500

RUN NO. 414/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.789	ALPHAC	1.986	ALPHAO	6.05709	DX	-.15807	DY	-.11379	CL	.26298	CD	.07001	CLM	.01070	CY	.00359	CYN	.00104	CBL	-.00101
	14.819	MACH	.48945		8.37959		-.06484		-.09466		.33277		.08023		.01950		.00354		.00096		-.00093
		GRADIENT	-.00005		.94620		.03798		.00779		.02844		.00416		.00950		-.00002		-.00003		.00003

RUN NO. 415/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.638	ALPHAC	2.215	ALPHAO	6.25657	DX	-.07823	DY	-.13076	CL	.28104	CD	.07336	CLM	.00971	CY	.00339	CYN	.00101	CBL	-.00105
	29.626	MACH	.49048		8.35752		-.04136		-.13496		.35226		.08339		.01848		.00337		.00097		-.00102
		GRADIENT	.00048		.95503		.01676		-.00191		.03237		.00456		.00399		-.00001		-.00002		.00001

RUN NO. 416/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.438	ALPHAC	2.214	ALPHAO	6.22878	DX	-.07656	DY	-.11385	CL	.28802	CD	.07453	CLM	.00874	CY	.00265	CYN	.00092	CBL	-.00103
	44.694	MACH	.48927		8.27081		-.09178		-.16629		.36453		.08539		.01705		.00310		.00091		-.00089
		GRADIENT	-.00053		.96531		-.00719		-.02479		.03617		.00513		.00393		.00021		-.00000		.00007

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(CNH042) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .300

RUN NO. 421/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.128	ALPHAC	2.209	ALPHAO	6.15824	DX	-.00134	DY	-.00631	CL	.25205	CD	.06927	CLM	.01660	CY	.00328	CYN	.00072	CBL	-.00043
	3.123	MACH	.29686		8.14827		.01001		-.02654		.31146		.07798		.02362		.00309		.00066		-.00048
		GRADIENT	-.00006		.98892		.00564		-.01006		.02952		.00433		.00349		-.00009		-.00003		-.00003

RUN NO. 422/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.085	ALPHAC	2.291	ALPHAO	6.28847	DX	-.07398	DY	-.04136	CL	.26796	CD	.07109	CLM	.01468	CY	.00224	CYN	.00055	CBL	-.00040
	7.303	MACH	.29615		8.32691		-.07285		-.01484		.32793		.08041		.02120		.00285		.00077		-.00040
		GRADIENT	-.00053		.99140		.00055		.01290		.02917		.00453		.00317		.00029		.00010		-.00000

REFERENCE DATA      PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1109.0000 IN. XO      BETA = .000      STAB = 5.000  
 LREF = 474.8100 IN.      YMRP = .0000 IN. YO      RUDDER = .000      ELEVON = 5.000  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO      TORB = .000      DX = .000  
 SCALE = .0125                     DY = .000      MACH = .300

ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
9.285	.29680	6.13881	-.01604	-.02059	.26123	.07080	.01300	.00085	.00037	-.00075
9.970	.29657	8.34801	-.10366	-.04935	.33184	.08153	.02035	.00155	.00044	-.00040
	.00010	1.01948	-.04044	-.01327	.03258	.00495	.00339	.00032	.00003	.00016

ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
14.488	.29699	6.25676	-.06213	-.02430	.27183	.07285	.01183	.00222	.00055	-.00057
14.575	.29707	8.31217	-.04284	-.03813	.34189	.08258	.01958	.00238	.00053	-.00084
	.00004	.98457	.00924	-.00662	.03356	.00466	.00371	.00008	-.00001	-.00013

ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
29.804	.29669	6.21467	-.11139	-.03212	.28162	.07523	.01001	.00246	.00052	-.00095
29.724	.29648	8.26295	-.07168	-.04141	.35957	.06573	.01829	.00186	.00042	-.00081
	.00010	.97492	.01890	-.00442	.03711	.00500	.00394	-.00028	-.00005	.00007

ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.766	.29674	6.22064	-.08944	-.11793	.28835	.07647	.00910	.00189	.00051	-.00071
44.688	.29673	8.24369	-.05498	-.10352	.36586	.08679	.01658	.00104	.00038	-.00048
	.00000	.98014	.01670	.00698	.03755	.00500	.00363	-.00041	-.00006	.00011

ALPHAC	MACH	ALPHA	DX	DY	CL	CD	CLM	CY	CYN	CBL
44.766	.29674	6.22064	-.08944	-.11793	.28835	.07647	.00910	.00189	.00051	-.00071
44.688	.29673	8.24369	-.05498	-.10352	.36586	.08679	.01658	.00104	.00038	-.00048
	.00000	.98014	.01670	.00698	.03755	.00500	.00363	-.00041	-.00006	.00011

ARC 14-120(CA238) 0251

(CNH043) ( 09 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 ELEVON = 5.000

RUN NO. 431/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	CL	CD	CLM	CY	CYN	CBL
2.284	4.518	.59425	.24162	.07023	.00017	.00154	.00091	-.00167
2.235	6.328	.59503	.33066	.07845	.00604	.00164	.00087	-.00165
1.862	8.269	.59509	.42465	.09145	.01312	.00171	.00078	-.00166
2.534	10.303	.59415	.53958	.11588	.01634	.00260	.00067	-.00189
2.332	12.406	.59442	.65671	.15794	.01792	.00292	.00020	-.00115
2.211	14.397	.59365	.75391	.21248	.02112	.00267	.00022	-.00270
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 432/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	CL	CD	CLM	CY	CYN	CBL
17.824	-.729	.59205	-.01077	.06239	-.01801	.00253	.00110	-.00161
20.582	4.597	.59217	.24231	.07051	-.00030	.00218	.00112	-.00137
20.432	6.440	.59209	.33123	.07907	.00568	.00245	.00107	-.00140
20.388	8.441	.59311	.43222	.09298	.01329	.00256	.00088	-.00156
20.672	10.411	.59177	.54431	.11739	.01615	.00249	.00053	-.00184
20.407	12.376	.59195	.65892	.15713	.01805	.00371	.00046	-.00119
20.474	14.347	.59171	.75186	.21092	.02111	.00256	.00028	-.00251
	GRADIENT	.00002	.04752	.00153	.00333	-.00007	.00000	.00005

RUN NO. 433/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	CL	CD	CLM	CY	CYN	CBL
37.645	-.608	.58927	-.00791	.06242	-.01823	.00233	.00110	-.00139
40.709	4.480	.58917	.23122	.07016	-.00111	.00206	.00112	-.00120
40.387	6.499	.58939	.32986	.07943	.00540	.00201	.00104	-.00124
40.324	8.438	.58979	.42386	.09289	.01263	.00182	.00084	-.00139
40.462	10.448	.58959	.53990	.11703	.01604	.00199	.00063	-.00144
40.577	12.427	.58736	.65484	.15594	.01815	.00264	.00046	-.00089
40.395	14.433	.58674	.74957	.21125	.02058	.00256	.00025	-.00245
	GRADIENT	-.00002	.04700	.00152	.00337	-.00005	.00000	.00004

PARAMETRIC DATA

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 ELEVON = 5.000

PARAMETRIC DATA

RUN NO.	441/ 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00	CY	CYN	CBL
ALPHAO	MACH	CL	CD	CLM	CY <td>CYN</td>	CYN
DZ 60.484	.59485	.33887	.05984	-.01955	.00245	.00106
60.085	.59469	.43070	.07332	-.01087	.00192	.00098
60.673	.59356	.55181	.09788	-.00571	.00132	.00103
60.708	.59481	.66763	.13666	-.00462	.00259	.00093
57.099	.59270	.74137	.17870	-.00250	.00132	.00115
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

ARC 14-120(CA23B) 03S1 (CNH045) ( 09 OCT 75 )

PARAMETRIC DATA

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 ELEVON = .000

PARAMETRIC DATA

RUN NO.	451/ 0	RN/L = 3.33	GRADIENT INTERVAL = -5.00/ 5.00	CY	CYN	CBL
ALPHAO	MACH	CL	CD	CLM	CY <td>CYN</td>	CYN
DZ 2.231	.59437	.16397	.04124	.01406	.00530	-.00048
2.483	.59364	.25547	.04733	.02102	.00535	-.00253
2.239	.59253	.34308	.05761	.03255	.00552	-.00046
1.921	.59341	.45153	.07643	.03942	.00544	-.00284
2.551	.59345	.57837	.11649	.03669	.00588	-.00258
2.114	.59228	.67445	.16243	.03688	.00528	-.00242
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

ARC 14-120(CA23B) 03S1 (CNH045) ( 09 OCT 75 )

PARAMETRIC DATA

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 ELEVON = .000

PARAMETRIC DATA

RUN NO.	452/ 0	RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00	CY	CYN	CBL
ALPHAO	MACH	CL	CD	CLM	CY <td>CYN</td>	CYN
DZ 17.573	.59296	-.08601	.03744	-.00963	.00655	-.00062
20.373	.59380	.15640	.04089	.01308	.00648	-.00030
20.172	.59514	.26188	.04820	.02120	.00620	-.00010
20.312	.59521	.35598	.05877	.03393	.00555	-.00058
20.516	.59488	.46175	.07880	.03847	.00619	-.00075
20.115	.59398	.57464	.11421	.03651	.00605	-.00080
GRADIENT	.00016	.04707	.00066	.00437	-.00001	.00006

ORIGINAL PAGE IS  
 OF POOR QUALITY

ARC 14-120(CA23B) 0351

(CNH045) ( 09 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 ELEVON = .000

RUN NO. 453/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	CL	CD	CLM	CY	CYN	CBL
37.990	-.738	.59769	-.08823	.03733	-.01019	.00754	-.00042	-.00242
40.220	4.411	.59951	.15284	.04108	.01277	.00631	-.00038	-.00243
39.923	6.397	.59907	.25326	.04836	.02321	.00615	-.00033	-.00210
40.358	8.474	.60003	.34645	.05893	.03318	.00600	-.00048	-.00206
40.425	10.464	.59917	.45227	.07779	.03302	.00617	-.00082	-.00267
40.404	12.438	.59793	.57301	.11601	.03546	.00682	-.00132	-.00247
40.396	14.487	.59904	.67378	.16462	.03643	.00534	-.00083	-.00213
	GRADIENT	.00035	.04681	.00073	.00446	-.00024	.00001	-.00000

ARC 14-120(CA23B) 0251

(CNH046) ( 09 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 ELEVON = .000

RUN NO. 461/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	CL	CD	CLM	CY	CYN	CBL
38.822	-.234	.59460	-.08044	.05797	.02042	.00324	.00082	-.00193
40.088	2.253	.59537	.03556	.05636	.02739	.00324	.00083	-.00177
40.254	4.484	.59568	.14633	.05963	.03396	.00319	.00084	-.00164
40.159	6.430	.59712	.24368	.06592	.03348	.00351	.00074	-.00187
40.206	8.402	.59658	.33568	.07592	.04327	.00336	.00060	-.00151
40.248	10.328	.59706	.43288	.09364	.05414	.00334	.00026	-.00165
40.591	12.418	.59705	.56002	.13350	.05411	.00376	.00004	-.00155
39.934	14.328	.59593	.65151	.18065	.05771	.00286	.00008	-.00213
	GRADIENT	.00023	.04804	.00033	.00287	-.00001	.00000	-.00006

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 ELEVON = .000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO DZ = 50.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA  
 RUN NO. 471/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA0 MACH CL CD CLM CY CYN DZ  
 6.055 .59522 .22276 .06445 .03805 .00315 .00088 49.63740  
 10.519 .59562 .44810 .09661 .05454 .00309 .00019 50.29570  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 472/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA0 MACH CL CD CLM CY CYN DZ  
 5.995 .59612 .22272 .06423 .03805 .00205 .00059 48.86470  
 10.412 .59578 .43519 .09447 .05406 .00318 .00020 50.29140  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 473/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA0 MACH CL CD CLM CY CYN DZ  
 5.974 .59634 .22044 .06417 .03798 .00306 .00079 49.00850  
 10.420 .59508 .43279 .09432 .05428 .00393 .00033 50.75890  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 474/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA0 MACH CL CD CLM CY CYN DZ  
 5.891 .59647 .21019 .06353 .03758 .00282 .00069 48.93470  
 10.503 .59516 .44259 .09595 .05420 .00359 .00023 50.66530  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 475/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA0 MACH CL CD CLM CY CYN DZ  
 5.884 .59557 .21037 .06360 .03735 .00329 .00080 49.39420  
 10.481 .59415 .44320 .09549 .05454 .00322 .00015 51.00510  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000





REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1103.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = .00414 .00177 -1.62692 -.08491 -.00381 -.02195 DY = .600

ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 4.365	-.02401	7.13931	.91914	.03572	.32977	-.00047	.00125
2.954	-.03533	.85653	.69755	.03008	.35124	-.00065	.00108
3.443	-.04096	.54517	.57102	.01995	.42111	-.00069	.00085
GRADIENT	-.00414	-1.62692	-.08491	-.00381	.02195	-.00005	-.00010

ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 6.994	-.02455	-10.98800	.41163	.04027	.29732	-.00049	.00123
7.541	-.03096	.74617	.31383	.02981	.36065	-.00068	.00115
7.335	-.03794	.49892	.14322	.01999	.43337	-.00066	.00083
GRADIENT	-.00297	2.65110	-.05892	-.00451	.03010	-.00004	-.00009

ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 9.751	-.02355	-9.48584	.18416	.04073	.29863	-.00070	.00110
9.637	-.03009	.71430	.17686	.02980	.36331	-.00102	.00086
9.522	-.03349	.43641	.18466	.02073	.43228	-.00081	.00087
GRADIENT	-.00221	2.26917	-.00003	-.00440	.02924	-.00003	-.00005

ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 14.752	-.02608	-62.46180	.22804	.04130	.29959	-.00079	.00108
15.063	-.02807	.65368	.28148	.03037	.36906	-.00097	.00104
15.188	-.03121	.47049	.17167	.02036	.44943	-.00082	.00076
GRADIENT	-.00233	14.38136	-.01129	-.00464	.03307	-.00001	-.00007

ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
DZ 29.536	-.02407	-40.44000	.29506	.04332	.29558	-.00085	.00109
29.860	-.03165	.74080	.29463	.03154	.38058	-.00107	.00098
29.902	-.03897	.51892	.17718	.02249	.45776	-.00108	.00064
GRADIENT	-.00342	9.85305	-.02565	-.00480	.03699	-.00006	-.00010

ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA)

(DNH008) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 86/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
44.873	-.065	-.02757	-23.10330	.22277	.04486	.29396	-.00076	.00100
44.666	2.496	-.03315	.76090	.16089	.03257	.38642	-.00101	.00086
45.029	4.342	-.03517	.46448	.10662	.02374	.47677	-.00104	.00057
GRADIENT	-.00175	.00096	5.59553	-.02622	-.00500	.04115	-.00006	-.00009

RUN NO. 87/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
50.039	-.106	-.02787	-14.70380	.15753	.04512	.29349	-.00083	.00094
50.412	2.490	-.03319	.76395	.19650	.03274	.39006	-.00076	.00091
50.166	4.334	-.03850	.50951	.12637	.02314	.47594	-.00083	.00051
GRADIENT	-.00237	-.00159	3.59220	-.00558	-.00494	.04084	.00000	-.00009

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA)

(DNH009) ( 08 OCT 75 )

RUN NO. 91/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
8.075	.274	-.02879	5.99245	.19735	.02290	.45079	-.00068	.00084
7.276	2.380	-.03042	.73241	.16196	.01793	.47805	-.00039	.00067
7.800	4.334	-.03350	.44328	.10141	.00968	.55909	-.00073	-.00007
GRADIENT	-.00116	.00224	-1.38154	-.02354	-.00324	.02650	-.00001	-.00022

RUN NO. 92/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
9.930	-.015	-.02295	-57.20780	.21687	.02827	.40271	-.00087	.00102
10.158	2.498	-.03277	.75188	.21172	.01788	.48241	-.00060	.00076
9.843	4.339	-.03474	.45919	.10044	.01014	.56336	-.00071	-.00011
GRADIENT	-.00278	.00184	13.82212	-.02529	-.00416	.03659	.00004	-.00025

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.002  
 RUDDER = .000 ELEVON = 5.002  
 TORB = 8.000 DX = .002  
 DY = .000 MACH = .603

RUN NO. 93/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.862	-.027	-.02177	-.03827	-12.10710	.27336	.02986	.39523	-.00093	.00081
14.490	2.534	-.03046	-.02906	.68879	.16081	.01861	.48206	-.00088	.00052
15.108	4.322	-.03437	-.02133	.45608	.09991	.01106	.56879	-.00080	-.00019
GRADIENT	-.00288	.00380	2.99138	-.03947	-.00425	.03876	.00003	-.00022	

RUN NO. 94/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.926	-.027	-.02424	-.02110	-42.27900	.14975	.03117	.40021	-.00116	-.00084
29.957	2.539	-.03487	-.03376	.78716	.18566	.01981	.49878	-.00097	.00038
29.720	4.365	-.04212	-.01885	.55338	.08835	.01260	.59425	-.00064	-.00035
GRADIENT	-.00408	.00016	10.21075	-.01216	-.00424	.04381	.00012	-.00026	

RUN NO. 95/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.465	-.192	-.02338	-.01754	-6.94078	.12774	.03408	.38564	-.00107	.00092
44.798	2.406	-.03033	-.03095	.72242	.17258	.02155	.49517	-.00089	.00034
44.826	4.485	-.03926	-.02844	.50205	.13191	.01315	.61541	-.00083	-.00026
GRADIENT	-.00337	-.00245	1.64707	.00156	-.00449	.04884	.00005	-.00025	

RUN NO. 96/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.555	-.078	-.03005	-.02435	-20.97440	.17333	.03303	.39818	-.00111	.00089
50.407	2.550	-.03265	-.02537	.73404	.13939	.02062	.50829	-.00102	.00023
50.452	4.393	-.04020	-.02682	.52481	.12503	.01357	.61452	-.00074	-.00047
GRADIENT	-.00218	-.00054	5.04293	-.01095	-.00438	.04794	.00008	-.00030	

ORIGINAL PAGE IS  
 OF POOR QUALITY

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(DNH010) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 101/ 0 RN/L = 3.39 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
6.742	.132	-.03786	-.08097	15.98680	.58112	.02829	.40582	-.00099	.00103
7.349	2.303	-.04006	-.08924	.99677	.50184	.01814	.48704	-.00094	.00053
7.463	4.270	-.03935	-.08411	.52838	.39704	.01076	.56921	-.00075	-.00020
	GRADIENT	-.00037	-.00081	-3.79022	-.04435	-.00424	.03945	.00006	-.00030

RUN NO. 102/ 0 RN/L = 3.38 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.009	-.206	-.03319	-.03516	-9.14115	.25384	.02923	.40472	-.00095	.00100
10.088	2.335	-.04042	-.03365	.99200	.18864	.01834	.49169	-.00060	.00056
10.447	4.346	-.03977	-.04055	.52480	.18940	.01117	.58229	-.00055	-.00041
	GRADIENT	-.00151	-.00111	2.20373	-.01465	-.00398	.03880	.00009	-.00030

RUN NO. 103/ 0 RN/L = 3.37 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
15.028	-.178	-.03442	-.03806	-10.91640	.27412	.02949	.40706	-.00112	.00089
14.812	2.367	-.03607	-.03222	.87350	.18060	.01914	.49209	-.00092	.00044
15.043	4.381	-.03720	-.02935	.48698	.13707	.01176	.58673	-.00094	-.00033
	GRADIENT	-.00061	-.00193	2.59261	-.03034	-.00390	.03914	.00004	-.00026

RUN NO. 104/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.734	-.108	-.03396	-.02025	-17.50900	.14541	.03104	.40782	-.00119	.00082
30.254	2.360	-.03978	-.02508	.96584	.13985	.01981	.50881	-.00096	.00024
29.860	4.407	-.04015	-.02305	.52247	.10761	.01308	.60720	-.00078	-.00039
	GRADIENT	-.00140	-.00067	4.11272	-.00816	-.00400	.04405	.00009	-.00027

RUN NO. 105/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.868	-.111	-.03296	-.03145	-16.47020	.22554	.03188	.40758	-.00120	.00082
45.183	2.422	-.03866	-.03268	.91470	.18116	.01993	.52122	-.00072	.00022
45.129	4.429	-.03932	-.02344	.50917	.10897	.01367	.62324	-.00102	-.00027
	GRADIENT	-.00144	-.00167	3.87374	-.02532	-.00404	.04739	.00005	-.00024

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (DNH010) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.000131 MACH = .600

RUN NO. 106/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.418	-.076	-.03425	-.03157	-24.19930	-.22512	.03236	.40721	-.00107	.00084
50.480	2.472	-.03651	-.02435	.84657	.13458	.02033	.51901	-.00079	.00024
50.477	4.415	-.04021	-.01688	.52230	.07855	.01367	.62856	-.00081	-.00033
	GRADIENT	-.00131	.00325	5.72305	-.03278	-.00419	.04901	.00006	-.00026

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (DNH011) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = -.00264 MACH = .600

RUN NO. 111/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.151	.047	-.02341	-.11075	26.60780	1.58291	.04832	.18739	-.00063	.00108
3.118	2.270	-.03080	-.10941	.77746	1.02370	.04025	.24792	-.00043	.00116
3.528	4.264	-.03447	.10860	.46360	.03104	.03104	.31069	-.00055	.00101
	GRADIENT	-.00264	.00051	-6.30222	-.19622	-.00409	.02920	.00002	-.00001

RUN NO. 112/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.547	-.170	-.02451	-.11970	-8.21007	1.69918	.04832	.19935	-.00060	.00123
7.199	2.385	-.03117	-.10988	.74906	1.00897	.04007	.25843	-.00070	.00115
7.175	4.257	-.03785	-.11583	.50986	.81416	.03136	.31628	-.00066	.00125
	GRADIENT	-.00299	.00105	2.06044	-.20407	-.00380	.02622	-.00002	.00000

RUN NO. 113/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.781	-.120	-.02656	-.11596	-12.50350	1.64035	.04862	.19967	-.00072	.00128
9.781	2.353	-.03276	-.11241	.79807	1.03445	.04047	.26129	-.00067	.00123
9.491	4.419	-.03856	-.11246	.50052	.77832	.03081	.32235	-.00079	.00116
	GRADIENT	-.00264	.00079	2.94672	-.19172	-.00390	.02686	-.00081	-.00003

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(DNH011) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 114/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.874	-.041	-.03158	-.11731	-37.75920	1.61977	.04944	.20441	-.00081	.00137
14.967	2.414	-.03386	-.11444	.80362	1.03828	.04077	.26890	-.00067	.00137
14.923	4.392	-.03861	-.11849	.50413	.81656	.03107	.33371	-.00080	.00120
	GRADIENT	-.00156	-.00021	8.91129	-.18339	-.00412	.02905	.00000	-.00004

RUN NO. 115/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.907	-.177	-.02656	-.11781	-8.53365	1.68668	.05145	.19895	-.00098	.00127
29.803	2.432	-.03132	-.10938	.73812	.99348	.04271	.27909	-.00086	.00111
29.693	4.435	-.04008	-.11499	.51832	.79100	.03186	.35546	-.00101	.00120
	GRADIENT	-.00288	.00074	2.04115	-.19773	-.00420	.03378	-.00000	-.00002

RUN NO. 116/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.786	-.134	-.02629	-.10711	-11.09150	1.52576	.05283	.19869	-.00093	.00114
45.057	2.347	-.03335	-.10582	.81448	.96551	.04318	.29112	-.00081	.00111
44.452	4.450	-.03876	-.11672	.49958	.80359	.03225	.37378	-.00095	.00111
	GRADIENT	-.00272	-.00202	2.59569	-.15955	-.00447	.03816	-.00000	-.00001

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(DNH012) ( 08 OCT 75 )

RUN NO. 121/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.209	.038	-.02403	-.11185	32.59070	1.07055	.03871	.29777	-.00049	.00125
3.176	2.411	-.02869	-.11753	.68203	.81762	.02821	.35714	-.00053	.00113
3.398	4.319	-.03801	-.10642	.50466	.59669	.01896	.42699	-.00056	.00086
	GRADIENT	-.00321	.00112	-7.73165	-.11051	-.00461	.02997	-.00002	-.00009

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO.	122/ 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00	BETA =	STAB =				
DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
7.586	-0.026	-0.02811	-0.11292	-47.68789	1.05177	0.3786	0.31091	-0.00069	0.00131
7.752	2.399	-0.03271	-0.11194	.78115	.77121	.02799	.36978	-0.00083	0.00135
7.261	4.448	-0.03798	-0.09920	.48964	.55069	.01865	.43761	-0.00095	0.00104
	GRADIENT	-0.00220	.00299	11.04783	-1.11211	-0.00429	.02820	-0.00006	-0.00006

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (DNH013) ( 08 OCT 75 )

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO.	131/ 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00	BETA =	STAB =				
DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
3.093	.127	-0.01363	-0.10041	6.10814	.95072	.03942	.30455	-0.00033	0.00106
3.006	2.255	-0.02297	-0.10209	.58365	.72488	.02998	.35773	-0.00024	0.00113
3.460	4.338	-0.02211	-0.08994	.29224	.50356	.01970	.43122	-0.00033	0.00084
	GRADIENT	-0.00202	.00247	-1.38557	-1.10619	-0.00468	.03006	-0.00000	-0.00005

ORIGINAL PAGE IS OF POOR QUALITY





REFERENCE DATA  
 SREF = 2690.0000 SQ.FT.      XMRP = 1109.0000 IN. XO      BETA = .000      STAB = 5.000  
 LREF = 474.8100 IN.      YMRP = .0000 IN. YO      RUDDER = .000      ELEVON = 5.000  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO      TORB = 6.000      DX = 10.000  
 SCALE = .0125      DY = .600      MACH = .600

PARAMETRIC DATA  
 RUN NO. 141/ 0      RN/L = 3.33      GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC      BETAC      BETAO      PHIC      PHIO      CA      CN      CSL      CLN  
 2.292      -0.1280      -0.06053      .42703      .35828  
 4.239      -0.05714      .20685      .32308      .42005  
 GRADIENT      -0.00128      .00174      -.05808      -.05341      -.00463      .03174      -.00012      -.00011

RUN NO. 142/ 0      RN/L = 3.32      GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC      BETAC      BETAO      PHIC      PHIO      CA      CN      CSL      CLN  
 1.933      -0.01416      .41998      .45795      .36614  
 4.300      -0.0526      .20349      .35723      .42883  
 GRADIENT      -0.00046      .00038      -.09144      -.04254      -.00398      .02648      -.00002      -.00009

RUN NO. 143/ 0      RN/L = 3.32      GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC      BETAC      BETAO      PHIC      PHIO      CA      CN      CSL      CLN  
 1.946      -0.0951      .28014      .36992      .36776  
 4.403      -0.01435      .18696      .31845      .43485  
 GRADIENT      -0.00197      -.00202      -.03792      -.02095      -.00404      .02731      .00003      -.00006

RUN NO. 144/ 0      RN/L = 3.31      GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC      BETAC      BETAO      PHIC      PHIO      CA      CN      CSL      CLN  
 1.968      -0.01610      .46894      .44604      .36913  
 4.376      -0.02033      .26641      .28556      .44243  
 GRADIENT      -0.00175      .00485      -.08412      -.06665      -.00423      .03045      -.00009      -.00009

RUN NO. 145/ 0      RN/L = 3.31      GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC      BETAC      BETAO      PHIC      PHIO      CA      CN      CSL      CLN  
 1.997      -0.02870      .82332      .45433      .38204  
 4.392      -0.03153      .41164      .27580      .46704  
 GRADIENT      -0.00118      .00613      -.17169      -.07454      -.00458      .03549      -.00008      -.00014

RUN NO. 146/ 0      RN/L = 3.30      GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC      BETAC      BETAO      PHIC      PHIO      CA      CN      CSL      CLN  
 1.998      -0.02928      .83988      .42896      .38349  
 4.430      -0.03316      .42924      .29070      .48689  
 GRADIENT      -0.00159      .00332      -.16883      -.05684      -.00492      .04251      -.00006      -.00024

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(DNH014) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 147/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.387	2.049	-.03183	-.05552	.89046	.39168	.03246	.39160	-.00057	.00078
50.182	4.431	-.03343	-.05247	.43278	.29200	.02102	.48446	-.00051	.00056
	GRADIENT	-.00067	.00128	-.19214	-.04185	-.00480	.03898	.00003	-.00009

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(DNH015) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 151/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.261	2.410	-.01539	-.05552	.36584	.31121	.01860	.47831	-.00036	.00074
7.540	4.362	-.02184	-.05594	.28710	.26196	.00962	.55854	-.00015	.00004
	GRADIENT	-.00330	-.00021	-.04035	-.02523	-.00461	.04111	.00011	-.00036

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 152/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.896	2.043	-.01620	-.05238	.45446	.29782	.01867	.48229	-.00041	.00079
10.215	4.469	-.02110	-.05759	.27085	.26759	.00951	.57226	-.00045	-.00003
	GRADIENT	-.00202	-.00215	-.07571	-.01246	-.00378	.03710	-.00002	-.00034

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 153/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.806	2.079	-.02047	-.04574	.56414	.25921	.01914	.48734	-.00065	.00063
14.750	4.497	-.02265	-.04780	.28886	.22228	.01023	.58194	-.00032	-.00030
	GRADIENT	-.00090	-.00085	-.11388	-.01528	-.00368	.03913	.00014	-.00039

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 154/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
30.131	2.049	-.03036	-.05990	.84898	.33936	.02003	.50434	-.00068	.00051
30.087	4.493	-.03550	-.05189	.45306	.24052	.01143	.60916	-.00031	-.00032
	GRADIENT	-.00210	-.00328	-.16197	-.04044	-.00352	.04288	.00015	-.00034

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 8.000 DX = 10.000  
 SCALE = .0125 GRADIENT = -.00136

RUN NO. 155/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
2.044	-.03319	-.04639	.93043	.26416	.02079	.50263	-.00088	.00037
44.833	-.03648	-.04968	.46906	.23069	.01201	.62177	-.00039	-.00017
45.102	-.00136	-.00136	-.19100	-.01386	-.00363	.04932	.00020	-.00022

RUN NO. 156/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
2.016	-.03450	-.04601	.98066	.26268	.02091	.50562	-.00062	.00036
4.375	-.03719	-.05004	.48742	.23415	.01240	.62291	-.00026	-.00040
50.292	-.00114	-.00171	-.20906	-.01210	-.00361	.04972	.00015	-.00032

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 6.000 DX = 20.000  
 SCALE = .0125 GRADIENT = -.00623

RUN NO. 161/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
2.461	-.01182	-.03333	.27527	.23156	.03289	.36105	-.00023	.00113
3.241	-.01773	-.04504	.23431	.25269	.02369	.42262	-.00038	.00098
	-.00315	-.00623	-.02180	.01125	-.00490	.03278	-.00008	-.00008

RUN NO. 162/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
2.024	-.01557	-.03938	.44088	.27945	.03242	.36709	-.00048	.00129
4.482	-.01969	-.03932	.25198	.21856	.02239	.43402	-.00061	.00109
	-.00168	.00002	-.07683	-.02473	-.00408	.02722	-.00005	-.00008

RUN NO. 163/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
1.989	-.01433	-.04140	.41286	.29275	.03231	.36972	-.00056	.00114
4.485	-.02025	-.03759	.25891	.20939	.02269	.43416	-.00065	.00099
	-.00237	.00153	-.06168	-.03340	-.00385	.02582	-.00004	-.00006

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ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(DNH016) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 154/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.885	2.147	-0.1853	-0.3531	.49453	.24571	.03153	.37800	-.00066	.00112
14.669	4.296	-.02454	-.04432	.32759	.25025	.02268	.44005	-.00088	.00088
	GRADIENT	-.00280	-.00419	-.07770	.00211	-.00412	.02888	-.00010	-.00011

RUN NO. 155/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.970	2.006	-.02941	-.03728	.83991	.26398	.03222	.38230	-.00098	.00109
29.738	4.442	-.03310	-.02971	.42727	.16541	.02171	.46542	-.00079	.00077
	GRADIENT	-.00151	.00311	-.16939	-.04046	-.00431	.03412	.00008	-.00013

RUN NO. 156/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.740	2.001	-.03180	-.04071	.91065	.28957	.03277	.38518	-.00076	.00099
44.620	4.440	-.03674	-.03905	.47457	.21740	.02127	.48116	-.00097	.00066
	GRADIENT	-.00202	.00068	-.17881	-.02959	-.00471	.03936	-.00009	-.00014

RUN NO. 167/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.218	1.983	-.03094	-.03538	.89420	.25207	.03334	.38451	-.00071	.00103
50.509	4.478	-.03710	-.03895	.47518	.21516	.02128	.48701	-.00088	.00059
	GRADIENT	-.00247	-.00143	-.16791	-.01479	-.00483	.04107	-.00007	-.00018

(DNH017) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 171/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
7.409	2.320	-.02250	.55574	.29786	.02051	.47382	-.00078	.00077
7.682	4.409	-.02964	.38562	.17796	.01073	.55741	-.00033	-.00004
	GRADIENT	-.00342	-.08146	-.05741	-.00468	.04002	.00022	-.00039

RUN NO. 172/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
10.200	1.989	-.02424	.69824	.25469	.02029	.48058	-.00071	.00081
9.876	4.367	-.02801	.36783	.20389	.01137	.58663	-.00061	-.00008
	GRADIENT	-.00159	-.13896	-.02136	-.00375	.03282	.00004	-.00037

RUN NO. 173/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
14.980	2.042	-.02756	.77345	.25118	.02039	.48257	-.00109	.00075
14.840	4.390	-.02838	.37080	.19334	.01138	.56674	-.00070	-.00012
	GRADIENT	-.00035	-.17151	-.02464	-.00384	.03585	.00016	-.00037

RUN NO. 174/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
30.168	1.994	-.03417	.98158	.22154	.02104	.49286	-.00091	.00067
29.810	4.397	-.04190	.54644	.23681	.01199	.59560	-.00086	-.00023
	GRADIENT	-.00322	-.18111	.00636	-.00376	.04276	.00002	-.00038

RUN NO. 175/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
44.854	2.109	-.03555	.96560	.21860	.02053	.50440	-.00085	.00028
45.244	4.417	-.04035	.52387	.20806	.01218	.61672	-.00095	-.00023
	GRADIENT	-.00208	-.19141	-.00457	-.00362	.04867	-.00004	-.00022

RUN NO. 176/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CN	CSL	CLN
50.344	2.118	-.03598	.97366	.20281	.02116	.50254	-.00082	.00044
50.595	4.352	-.03800	.50080	.19570	.01263	.61458	-.00081	-.00023
	GRADIENT	-.00090	-.21167	-.00319	-.00382	.05016	.00000	-.00030

REPRODUCED FROM ORIGINAL SOURCE

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(DNH018) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LOFB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 181/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
3.378	2.472	-.05330	-.04653	1.23581	.32090	.02798	.37197	-.00392	.00017
3.590	4.405	-.04626	-.03533	.60218	.19618	.01811	.43960	-.00661	.00021
	GRADIENT	.00364	.00579	-.32765	-.06449	-.00511	.03497	-.00139	.00002

RUN NO. 182/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
7.711	2.009	-.04982	-.03557	1.42106	.25146	.02932	.37676	-.00295	.00029
7.202	4.378	-.03609	-.04085	.47278	.22910	.01901	.44424	-.00526	.00027
	GRADIENT	.00579	.00223	-.40024	-.00944	-.00435	.02848	-.00098	-.00001

RUN NO. 183/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
9.911	2.005	-.04669	-.04412	1.33418	.31295	.02980	.37558	-.00293	.00049
10.102	4.475	-.02745	-.02597	.35177	.14366	.01862	.45564	-.00484	.00012
	GRADIENT	.00779	.00735	-.39775	-.06854	-.00453	.03241	-.00077	-.00015

RUN NO. 184/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
14.973	2.102	-.03302	-.03984	.90033	.27916	.03002	.38091	-.00280	.00063
14.736	4.362	-.01495	-.03269	.19656	.18330	.01983	.45554	-.00396	.00028
	GRADIENT	.00799	.00316	-.31129	-.04240	-.00451	.03301	-.00051	-.00015

RUN NO. 185/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
29.716	2.100	-.00154	-.04508	.04202	.31743	.03183	.38424	-.00201	.00084
29.761	4.335	-.01266	-.04340	-.16756	.24384	.02144	.46976	-.00273	.00043
	GRADIENT	.00636	.00075	-.09378	-.03293	-.00465	.03827	-.00032	-.00018

RUN NO. 186/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
44.733	1.972	-.00480	-.04216	.13937	.30126	.03319	.38695	-.00153	.00091
44.856	4.308	-.00046	-.03500	-.00608	.19684	.02192	.48335	-.00192	.00047
	GRADIENT	.00225	.00307	-.06227	-.04470	-.00482	.04127	-.00017	-.00019

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00159 -.00166 -.00189 -.00516 TORB = 10.000 MACH = .600

RUN NO. 187/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC 2.021 ALPHAC 2.021  
 BETA0 -.04737 BETA0 -.04737  
 BETAC -.01038 BETAC -.01038  
 PHIC .29428 PHIC .29428  
 PHIO .33765 PHIO .33765  
 CA .02139 CA .02139  
 CLN .49147 CLN .49147  
 GRADIENT 4.396 GRADIENT 4.396  
 CSL -.00171 CSL -.00171  
 CLN .00093 CLN .00093

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00159 -.00166 -.00189 -.00516 TORB = 10.000 MACH = .600

RUN NO. 191/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC 2.405 ALPHAC 2.405  
 BETA0 -.03168 BETA0 -.03168  
 BETAC -.03781 BETAC -.03781  
 PHIC .90077 PHIC .90077  
 PHIO .17717 PHIO .17717  
 CA .01696 CA .01696  
 CLN .49339 CLN .49339  
 GRADIENT 4.380 GRADIENT 4.380  
 CSL -.00558 CSL -.00558  
 CLN .00016 CLN .00016

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00159 -.00166 -.00189 -.00516 TORB = 10.000 MACH = .600

RUN NO. 192/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC 2.116 ALPHAC 2.116  
 BETA0 -.02745 BETA0 -.02745  
 BETAC -.01013 BETAC -.01013  
 PHIC .91320 PHIC .91320  
 PHIO .15535 PHIO .15535  
 CA .01732 CA .01732  
 CLN .49501 CLN .49501  
 GRADIENT 4.310 GRADIENT 4.310  
 CSL -.00479 CSL -.00479  
 CLN .00001 CLN .00001

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00159 -.00166 -.00189 -.00516 TORB = 10.000 MACH = .600

RUN NO. 194/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC 2.014 ALPHAC 2.014  
 BETA0 -.02737 BETA0 -.02737  
 BETAC .03046 BETAC .03046  
 PHIC -.33535 PHIC -.33535  
 PHIO .15917 PHIO .15917  
 CA .02040 CA .02040  
 CLN .49778 CLN .49778  
 GRADIENT 4.404 GRADIENT 4.404  
 CSL -.00175 CSL -.00175  
 CLN .00023 CLN .00023

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 OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(DNH019) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 195/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ 44.421  
 45.079  
 ALPHAC 2.014  
 4.380  
 GRADIENT .00668  
 .00110  
 BETAC .00407  
 .00668  
 .00110  
 BETA0 -.03615  
 -.03124  
 .00208  
 PHIC -.11587  
 .20762  
 .14588  
 .01199  
 PHIO .02121  
 .01280  
 -.00355  
 CA .00035  
 .00002  
 -.00014  
 CN .50064  
 .62381  
 .05205

RUN NO. 196/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ 50.290  
 50.279  
 ALPHAC 2.002  
 4.323  
 GRADIENT .00661  
 .00030  
 BETAC -.00131  
 -.04085  
 -.02055  
 .00874  
 PHIC .03751  
 .00815  
 -.01264  
 PHIO .23372  
 .02118  
 .01332  
 -.05904  
 CA .00109  
 -.00145  
 -.00016  
 CN .50443  
 .62171  
 .05051

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 LORB = 8.000  
 DY = 10.000  
 STAB = 5.000  
 ELEVON = 5.000  
 DX = .000  
 MACH = .600

CSL  
 -.00152  
 -.00158  
 -.00003  
 -.00014

CSL  
 -.00109  
 -.00145  
 -.00016  
 -.00026

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(DNH020) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ 2.999  
 2.972  
 3.376  
 ALPHAC .056  
 2.231  
 4.258  
 GRADIENT .00382  
 -.00132  
 BETAC -.02828  
 -.03056  
 -.03382  
 BETA0 -.08876  
 -.06736  
 -.09060  
 PHIC 26.67240  
 .78482  
 .45546  
 -.6.30867  
 PHIO 1.27147  
 .63585  
 .63611  
 -.15293  
 CA .04686  
 .03850  
 .02932  
 -.00417  
 CN .11551  
 .17505  
 .23611  
 .02869

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.356  
 7.305  
 7.176  
 ALPHAC -.232  
 2.422  
 4.286  
 GRADIENT -.02757  
 -.03173  
 -.03467  
 BETA0 -.06478  
 -.07644  
 -.07960  
 PHIC -6.78415  
 .75071  
 .46391  
 1.68783  
 PHIO .93772  
 .69653  
 .55830  
 -.08444  
 CA .04713  
 .03946  
 .02923  
 -.00392  
 CN .11998  
 .18089  
 .24151  
 .02663

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 LORB = 4.000  
 DY = .000  
 STAB = 5.000  
 ELEVON = .000  
 DX = .000  
 MACH = .600

CSL  
 -.00102  
 -.00115  
 -.00085  
 .00004

CSL  
 -.00113  
 -.00109  
 -.00106  
 .00002

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 LORB = 8.000  
 DY = 10.000  
 STAB = 5.000  
 ELEVON = 5.000  
 DX = .000  
 MACH = .600

CSL  
 -.00152  
 -.00158  
 -.00003  
 -.00014

CSL  
 -.00109  
 -.00145  
 -.00016  
 -.00026

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 LORB = 4.000  
 DY = .000  
 STAB = 5.000  
 ELEVON = .000  
 DX = .000  
 MACH = .600

CSL  
 -.00102  
 -.00115  
 -.00085  
 .00004

CSL  
 -.00113  
 -.00109  
 -.00106  
 .00002



TABULATED SOURCE DATA - CA23B

(DNH020) ( 21 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

DATE 22 MAR 76

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO 1ORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .00008 MACH = .600

REFERENCE DATA

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 9.998 -.190 -.03105 -.07750 -9.30004 1.10478 .04744 .12146 -.00134 .00101  
 9.822 2.393 -.03424 -.08742 .81997 .79993 .03838 .18730 -.00132 .00105  
 9.715 4.416 -.03357 -.07630 .43602 .52700 .02907 .24615 -.00094 .00110  
 GRADIENT -.00058 .00008 2.19562 -.12512 -.00397 .02700 .00008 .00002

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 14.608 -.076 -.02818 -.07640 -20.23330 1.07213 .04749 .12499 -.00149 .00090  
 14.941 2.433 -.03134 -.07495 .73837 .67795 .03879 .19292 -.00126 .00097  
 14.567 4.425 -.03172 -.07672 .41119 .52958 .02933 .25573 -.00103 .00092  
 GRADIENT -.00081 .00004 4.74688 -.12209 -.00401 .02896 .00010 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 29.742 -.160 -.03287 -.07696 -11.64240 1.10106 .04946 .12024 -.00160 .00085  
 29.812 2.421 -.03327 -.07190 .78744 .65328 .04017 .20333 -.00138 .00078  
 29.770 4.475 -.03485 -.07954 .44661 .54419 .02959 .27614 -.00142 .00083  
 GRADIENT -.00041 .00045 2.70131 -.12240 -.00426 .03358 .00004 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC ALPHAC BETAC BETAO PHIC PHIO CA CN CSL CLN  
 44.518 -.106 -.03181 -.07540 -16.70720 1.07283 .05005 .11990 -.00142 .00081  
 44.662 2.474 -.03453 -.07541 .80009 .67953 .04036 .21261 -.00147 .00081  
 44.473 4.486 -.03660 -.06670 .46734 .45726 .02958 .29126 -.00135 .00076  
 GRADIENT -.00104 .00181 3.88044 -.13490 -.00443 .03725 .00001 .00001

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(DNH021) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 211/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.110	.173	-.02110	-.09381	6.95086	1.29997	.04480	.11437	-.00100	.00088
3.078	2.255	-.03101	-.09682	.78797	.90716	.03725	.18872	-.00102	.00098
3.099	4.353	-.03504	-.10020	.46166	.69789	.02781	.23373	-.00090	.00088
GRADIENT	-.00333	-.00153	-.00153	-1.55055	-.14397	-.00407	.02856	.00002	-.00000

RUN NO. 212/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.673	-.126	-.02421	-.09799	-10.84500	1.37286	.04544	.11889	-.00124	.00101
7.105	2.399	-.03109	-.10688	.74259	.98064	.03721	.17505	-.00103	.00094
7.181	4.355	-.03397	-.10016	.44740	.69583	.02776	.23911	-.00106	.00088
GRADIENT	-.00220	-.00063	-.00063	2.61793	-.15128	-.00391	.02661	.00004	-.00003

RUN NO. 213/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.888	-.253	-.02234	-.10311	-5.03962	1.50123	.04637	.11227	-.00127	.00088
10.133	2.398	-.03044	-.09252	.72762	.84124	.03707	.18204	-.00111	.00105
9.989	4.413	-.03202	-.09419	.41610	.64781	.02758	.24614	-.00111	.00077
GRADIENT	-.00212	-.00202	.00202	1.22074	-.18627	-.00400	.02857	.00004	-.00002

RUN NO. 214/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.808	-.052	-.02282	-.09691	-23.82030	1.34952	.04610	.12319	-.00157	.00088
14.795	2.452	-.02740	-.09118	.64047	.82381	.03756	.18825	-.00124	.00088
14.846	4.403	-.03224	-.10412	.41987	.71611	.02809	.25380	-.00105	.00085
GRADIENT	-.00210	-.00144	-.00144	5.64106	-.14531	-.00401	.02916	.00012	-.00001

RUN NO. 215/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.743	-.137	-.02376	-.09264	-9.85063	1.32218	.04809	.12087	-.00139	.00081
29.755	2.487	-.03203	-.08775	.73818	.79014	.03875	.20160	-.00149	.00086
29.747	4.402	-.03376	-.08901	.43980	.61393	.02909	.27182	-.00117	.00082
GRADIENT	-.00226	-.00086	-.00086	2.37265	-.15883	-.00415	.03311	.00004	-.00000

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

(DNH021) ( 08 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RUN NO. 216/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.609	-1.14	-0.1992	-0.8265	-9.94199	1.17747	.04928	.12097	-0.0126	.00070
44.499	2.547	-0.3157	-0.08404	.71032	.75098	.03882	.21684	-0.0146	.00076
44.744	4.315	-0.33304	-0.09687	.43911	.67385	.02960	.28416	-0.0102	.00080
GRADIENT		-0.00308	-0.00299	2.476.5	-1.1742	-0.00440	.03678	.00004	.00002

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

(DNH022) ( 08 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RUN NO. 221/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.175	.180	-0.1798	-0.09385	5.69209	.66443	.02374	.32685	-0.0121	.00077
7.048	2.374	-0.1994	-0.08436	.48131	.47319	.01345	.39939	-0.0109	.00062
7.827	4.374	-0.2165	-0.08149	.28389	.38018	.00483	.48740	-0.0090	-0.0019
GRADIENT		-0.00088	.00297	-1.30708	-0.6809	-0.00451	.03820	.00008	-0.00023

RUN NO. 222/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.008	-0.095	-0.1987	-0.08749	-11.78550	.62331	.02437	.33226	-0.0131	.00086
9.794	2.462	-0.2395	-0.09099	.55746	.50567	.01412	.40375	-0.0141	.00061
10.168	4.329	-0.2393	-0.08578	.31698	.40184	.00547	.49095	-0.0114	-0.00021
GRADIENT		-0.00096	.00028	2.85990	-.04981	-0.00425	.03539	.00003	-0.00023

RUN NO. 223/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.875	-0.131	-0.1561	-0.07815	-6.77832	.56064	.02549	.32502	-0.0141	.00065
15.107	2.479	-0.2126	-0.08579	.49153	.47415	.01372	.41064	-0.0127	.00046
14.650	4.467	-0.2519	-0.08632	.32336	.40184	.00590	.49829	-0.0114	.00002
GRADIENT		-0.00209	-0.00184	1.60755	-.03446	-0.00427	.03743	.00006	-0.00013

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(DNH022) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 224/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.663	-1.130	-0.02533	-0.09274	-10.98930	.66773	.02690	.32475	-.00143	.00071
30.014	2.540	-0.02959	-0.09038	.66761	.49726	.01443	.42183	-.00169	.00045
30.212	4.360	-0.03194	-0.08373	.42012	.39081	.00728	.52093	-.00122	-.00014
GRADIENT	-.00148	.00192	2.67627	-.06183	-.00439	.04314	-.00004	-.00006	-.00018

RUN NO. 225/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.608	-.097	-0.02843	-0.08365	-16.30560	.60103	.02803	.32186	-.00145	.00069
44.758	2.520	-0.03315	-0.07930	.75396	.43776	.01497	.42688	-.00140	.00036
44.921	4.300	-0.03688	-0.08637	.49188	.40592	.00791	.52934	-.00117	-.00010
GRADIENT	-.00191	.00045	4.02113	-.04571	-.00460	.04666	-.00006	-.00006	-.00018

RUN NO. 226/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.329	-.122	-0.02932	-0.08725	-13.55440	.62610	.02823	.32111	-.00134	.00082
50.199	2.456	-0.03269	-0.07606	.76282	.42225	.01575	.42298	-.00137	.00038
50.308	4.443	-0.03733	-0.09256	.48180	.43064	.00779	.53614	-.00121	.00001
GRADIENT	-.00173	.00090	3.19488	-.04458	-.00451	.04674	-.00003	-.00003	-.00018

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 231/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.160	.028	-0.01846	-0.08306	33.32190	.79878	.03609	.25445	-.00078	.00085
3.398	2.478	-0.02078	-0.07840	.48052	.53695	.02523	.28941	-.00095	.00082
3.235	4.342	-0.02437	-0.07307	.32189	.40989	.01598	.34827	-.00120	.00079
GRADIENT	-.00135	.00230	-7.94312	-.09099	-.00465	.02835	-.00010	-.00010	-.00002

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(DNH023) ( 08 OCT 75 )

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 6.000 DX = .000  
 SCALE = .0125 DY = .000 MACH = .600

RUN NO. 232/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.044	-.157	-.01844	-.08117	-6.67827	.77814	.03625	.22953	-.00108	.00087
7.210	2.438	-.02027	-.08467	.47652	.58519	.02543	.28950	-.00101	.00078
7.208	4.444	-.02161	-.07606	.27892	.42297	.01594	.35254	-.00142	.00061
	GRADIENT	-.00069	.00099	1.57164	-.07705	-.00440	.02656	-.00007	-.00006

RUN NO. 233/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.588	-.079	-.01877	-.07496	-13.36650	.70875	.03631	.23048	-.00108	.00084
9.981	2.449	-.02096	-.07655	.49045	.52627	.02573	.29069	-.00121	.00082
9.714	4.418	-.02148	-.07156	.27883	.39877	.01567	.35836	-.00139	.00064
	GRADIENT	-.00061	.00069	3.14770	-.06908	-.00457	.02822	-.00007	-.00004

RUN NO. 234/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.480	-.060	-.01899	-.07835	-17.55720	.74045	.03701	.22847	-.00105	.00089
14.703	2.510	-.01969	-.07020	.44958	.48046	.02541	.29925	-.00134	.00069
14.839	4.425	-.02234	-.07276	.28959	.40432	.01649	.36117	-.00135	.00066
	GRADIENT	-.00072	.00135	4.14699	-.07640	-.00457	.02947	-.00007	-.00005

RUN NO. 235/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.767	-.083	-.02720	-.07915	-18.05020	.74815	.03832	.22828	-.00125	.00084
29.743	2.454	-.02849	-.08272	.66551	.56922	.02735	.30152	-.00129	.00078
29.929	4.441	-.03141	-.07384	.40567	.40926	.01631	.38699	-.00153	.00050
	GRADIENT	-.00091	.00106	4.22849	-.07471	-.00484	.03480	-.00006	-.00007

RUN NO. 236/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.538	-.030	-.03016	-.07105	-45.63040	.66987	.03930	.22714	-.00136	.00073
44.541	2.408	-.03288	-.07398	.78245	.51262	.02806	.30739	-.00121	.00060
44.965	4.398	-.03562	-.07262	.46454	.40355	.01666	.39952	-.00134	.00036
	GRADIENT	-.00123	.00039	10.73182	-.06032	-.00510	.03871	-.00001	-.00008

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(DNH023) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 D1 = .000 MACH = .600

RUN NO. 237/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ  
 49.951  
 49.970  
 50.050

ALPHAC BETAC BETAO PHIC PHIO CA CN  
 -.140 -.03117 -.06300 -12.56690 .60450 .22115  
 2.539 -.03313 -.06581 .74761 .44958 .31469  
 4.426 -.03462 -.06447 .44853 .35867 .40081  
 GRADIENT -.00075 -.00037 2.98358 -.05410 -.00509 .03905

CSL CLN  
 -.00119 .00075  
 -.00127 .00068  
 -.00115 .00036  
 .00001 -.00008

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(DNH024) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 241/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ  
 2.790  
 3.147  
 3.235

ALPHAC BETAC BETAO PHIC PHIO CA CN  
 .104 -.01687 -.10599 9.17543 1.02723 .03591 .21623  
 2.378 -.02780 -.10795 .67006 .75025 .02447 .28464  
 4.382 -.03032 -.10588 .39684 .59164 .01492 .34644  
 GRADIENT -.00318 -.00001 -2.08954 -.10226 -.00491 .03043

CSL CLN  
 -.00110 .00095  
 -.00103 .00083  
 -.00133 .00059  
 -.00005 -.00006

RUN NO. 242/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ  
 7.214  
 7.169  
 7.223

ALPHAC BETAC BETAO PHIC PHIO CA CN  
 -.107 -.01946 -.09671 -10.32810 .91690 .29444  
 2.445 -.02538 -.10545 .59539 .72832 .02491 .28666  
 4.433 -.03068 -.10967 .39700 .61002 .01498 .35295  
 GRADIENT -.00247 -.00288 2.45132 -.06790 -.00440 .02699

CSL CLN  
 -.00116 .00090  
 -.00105 .00092  
 -.00145 .00071  
 -.00006 -.00004

RUN NO. 243/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ  
 9.900  
 9.833  
 9.797

ALPHAC BETAC BETAO PHIC PHIO CA CN  
 -.036 -.01552 -.10373 -23.52540 .96998 .23178  
 2.466 -.02473 -.10781 .57491 .74093 .02482 .29008  
 4.354 -.02779 -.09668 .36604 .55238 .01579 .35121  
 GRADIENT -.00284 -.00100 5.66359 -.09495 -.00438 .02700

CSL CLN  
 -.00106 .00083  
 -.00112 .00088  
 -.00150 .00062  
 -.00010 -.00004

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 244/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.827	-.163	-.01662	-.10882	-5.82977	1.03936	.03670	.22426	-.00126	.00090
14.725	2.499	-.02233	-.10653	.51199	.73058	.02526	.29205	-.00130	.00077
14.404	4.287	-.02833	-.11433	.37901	.64617	.01633	.35455	-.00165	.00076
	GRADIENT	-.00259	-.00108	1.47172	-.09050	-.00456	.02899	-.00008	-.00003

RUN NO. 245/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.598	-.049	-.02060	-.10391	-22.87620	.98226	.03775	.22842	-.00146	.00085
29.897	2.432	-.02789	-.10629	.65724	.73161	.02652	.30405	-.00150	.00062
29.731	4.487	-.03348	-.10341	.42793	.57164	.01591	.38590	-.00168	.00063
	GRADIENT	-.00284	.00007	5.28621	-.09089	-.00481	.03458	-.00005	-.00005

RUN NO. 246/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.528	-.131	-.02125	-.09970	-9.19757	.95638	.03959	.22249	-.00140	.00073
44.796	2.390	-.03248	-.09689	.77909	.67049	.02759	.30996	-.00162	.00065
44.981	4.445	-.03629	-.08862	.46835	.48992	.01622	.39947	-.00144	.00054
	GRADIENT	-.00333	.00237	2.18118	-.10237	-.00510	.03853	-.00001	-.00004

RUN NO. 247/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
49.996	-.101	-.02348	-.10355	-13.06200	.98795	.03958	.22563	-.00159	.00071
50.084	2.534	-.03304	-.10365	.74722	.70703	.02694	.31734	-.00155	.00067
50.059	4.394	-.03447	-.09375	.44997	.52290	.01684	.39729	-.00140	.00043
	GRADIENT	-.00253	.00203	3.15515	-.10367	-.00504	.03796	-.00004	-.00006

ARC 14-120(CA23B) 747/1 ATI 02SI (ORBITER DATA)

(DNH025) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CSL	CLN
7.209	-.039	-.02082	28.15880	.86433	.02346	-.00112	.00091
7.216	2.367	-.02238	.54194	.59634	.01295	-.00117	.00062
7.326	4.353	-.03042	.40075	.49282	.00418	-.00133	.00021
GRADIENT	-.00218	-.00362	-6.58775	-.08693	-.00447	-.00005	-.00016

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CSL	CLN
9.339	-.027	-.01829	-34.19580	.82723	.02310	-.00139	.00081
10.040	2.372	-.02145	.51828	.61215	.01358	-.00127	.00053
10.061	4.478	-.03288	.42113	.50087	.00397	-.00116	-.00005
GRADIENT	-.00320	-.00179	7.83983	-.07284	-.00424	.00005	-.00019

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CSL	CLN
14.643	-.013	-.01852	-54.03890	.78492	.02372	-.00158	.00085
15.082	2.543	-.02390	.53864	.58935	.01251	-.00168	.00061
14.801	4.374	-.02446	.32075	.46054	.00501	-.00119	-.00013
GRADIENT	-.00140	.00272	12.96060	-.07410	-.00427	.00008	-.00022

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CSL	CLN
29.827	-.162	-.01960	-6.88413	.79624	.02619	-.00154	.00078
30.228	2.450	-.02650	.61987	.57813	.01449	-.00134	.00051
30.232	4.437	-.03055	.39488	.44632	.00609	-.00103	-.00018
GRADIENT	-.00239	.00304	1.64858	-.07646	-.00438	.00011	-.00020

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	PHIC	PHIO	CA	CSL	CLN
44.600	-.132	-.02289	-9.85191	.73778	.02748	-.00145	.00077
45.018	2.364	-.03204	.77675	.58252	.01524	-.00149	.00048
44.806	4.412	-.03429	.44576	.46660	.00674	-.00088	-.00020
GRADIENT	-.00255	.00042	2.33763	-.05977	-.00458	.00012	-.00021



REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA  
 CSL .00116 CLN .00074  
 -.00136 .00042  
 -.00109 -.00004  
 .00001 -.00017

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (DNH027) ( 21 OCT 75 )  
 RUN NO. 261/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA  
 CSL .00223 CLN .00021  
 -.00235 .00028  
 -.00239 -.00064  
 -.00004 -.00020

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (DNH027) ( 21 OCT 75 )  
 RUN NO. 262/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA  
 CSL .00229 CLN .00037  
 -.00210 .00003  
 -.00252 -.00044  
 -.00004 -.00017

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (DNH027) ( 21 OCT 75 )  
 RUN NO. 263/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA  
 CSL .00260 CLN .00008  
 -.00257 .00035  
 -.00242 -.00088  
 .00004 -.00017

ARC 14-120(CA238) 747/1 AT1 03S1 (ORBITER DATA)

(DNH027) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORP = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 264/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.711	-.161	-.02834	-.11546	-9.99059	.83374	.00879	.32450	-.00277	.00005
29.841	2.529	-.02940	-.11449	.66612	.63153	-.00398	.41942	-.00250	-.00031
30.092	4.385	-.03050	-.11120	.39889	.51881	-.01277	.51981	-.00253	-.00082
	GRADIENT	-.00047	.00090	2.40570	-.06971	-.00474	.04242	.00006	-.00019

RUN NO. 265/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.673	-.113	-.03278	-.10878	-16.17440	.78267	.00935	.32765	-.00267	-.00013
44.791	2.534	-.03643	-.11525	.82395	.63500	-.00367	.42886	-.00272	-.00025
44.852	4.379	-.03440	-.10459	.45049	.48893	-.01237	.53251	-.00239	-.00084
	GRADIENT	-.00043	.00070	3.89001	-.06473	-.00484	.04510	.00005	-.00015

RUN NO. 266/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.205	-.137	-.03225	-.11579	-13.25630	.83308	.01043	.32082	-.00265	.00008
50.115	2.437	-.03746	-.11531	.88102	.64198	-.00282	.42376	-.00263	-.00026
50.310	4.427	-.03580	-.11520	.46373	.53666	-.01232	.53965	-.00230	-.00088
	GRADIENT	-.00084	.00013	3.12501	-.06539	-.00499	.04757	.00007	-.00021

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

ARC 14-120(CA238) 747/1 AT1 03S1 (ORBITER DATA)

(DNH028) ( 21 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORP = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 281/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.140	2.450	-.02782	-.11208	.64808	.77724	.00923	.28077	-.00183	.00045
3.154	4.481	-.02861	-.12642	.36616	.70129	-.00064	.33888	-.00223	.00049
	GRADIENT	-.00039	-.00709	-.13947	-.03757	-.00488	.02875	-.00020	.00002

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO TORB = .000 DX = 10.000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

REFERENCE DATA

PARAMETRIC DATA

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.424	2.022	-.02526	-.11428	.71587	.80635	.00883	.29052	-.00208	.00044
7.204	4.410	-.02631	-.11343	.34213	.63461	-.00142	.34814	-.00246	.00039
	GRADIENT	-.00044	.00035	-.15652	-.07193	-.00429	.02413	-.00016	-.00002

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.851	2.068	-.02201	-.10749	.60993	.75603	.00853	.29383	-.00217	.00023
9.970	4.488	-.02315	-.11604	.29588	.64226	-.00206	.35572	-.00245	.00022
	GRADIENT	-.00047	-.00353	-.12981	-.04702	-.00438	.02558	-.00012	-.00000

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.671	2.026	-.02188	-.11676	.61866	.82708	.00892	.29526	-.00231	.00023
14.337	4.481	-.01949	-.10932	.24945	.60938	-.00131	.35548	-.00259	.00024
	GRADIENT	.00097	.00303	-.15039	-.08868	-.00416	.02453	-.00011	.00001

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.878	2.180	-.03009	-.11357	.79114	.78798	.00921	.30855	-.00238	.00010
29.674	4.515	-.03186	-.11495	.40467	.63585	-.00185	.38429	-.00276	.00009
	GRADIENT	-.00076	.00059	-.16549	-.06514	-.00473	.03243	-.00016	-.00000

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.780	2.093	-.03422	-.10437	.93679	.73323	.01075	.30711	-.00233	.00003
45.100	4.521	-.03563	-.11710	.46462	.64384	-.00186	.39971	-.00229	.00006
	GRADIENT	-.00099	.00524	-.19445	-.03681	-.00519	.03813	.00002	-.00001

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.200	2.061	-.03561	-.11216	.99020	.79184	.01060	.31085	-.00239	.00006
50.258	4.539	-.03511	-.10758	.44362	.59229	-.00240	.40591	-.00244	.00013
	GRADIENT	.00020	.00186	-.22054	-.08052	-.00524	.03836	-.00002	-.00008

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(DNH029) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 291/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.274	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	7.616	2.465	-.02502	-.11389	.58170	.63429	-.00397	.39264	-.00235	.00019
		4.442	-.02878	-.11296	.37160	.52553	-.01417	.47220	-.00296	-.00003
		GRADIENT	-.00190	.00047	-.10624	-.05500	-.00516	.04023	-.00031	-.00011

RUN NO. 292/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	10.037	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	10.105	2.057	-.02401	-.10716	.66883	.60698	-.00355	.39438	-.00216	.00012
		4.486	-.02501	-.11457	.31970	.53198	-.01440	.48053	-.00277	-.00028
		GRADIENT	-.00041	-.00305	-.14370	-.03087	-.00446	.03546	-.00025	-.00016

RUN NO. 293/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	15.073	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	14.864	2.020	-.01983	-.11692	.56255	.66418	-.00349	.39790	-.00233	-.00009
		4.412	-.02121	-.11088	.27569	.51875	-.01364	.48215	-.00262	-.00058
		GRADIENT	-.00058	.00252	-.11990	-.06079	-.00424	.03522	-.00012	-.00021

RUN NO. 294/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.231	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	29.953	2.128	-.02803	-.11207	.75465	.62962	-.00347	.41509	-.00250	-.00021
		4.510	-.02957	-.11126	.37609	.51576	-.01309	.51674	-.00243	-.00087
		GRADIENT	-.00065	.00034	-.15896	-.04781	-.00404	.04268	.00003	-.00028

RUN NO. 295/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.559	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	45.001	2.087	-.03479	-.11354	.95549	.64550	-.00169	.41269	-.00265	-.00016
		4.446	-.03809	-.12021	.49137	.55913	-.01227	.53100	-.00224	-.00085
		GRADIENT	-.00140	-.00283	-.19673	-.03661	-.00448	.05015	.00018	-.00029

RUN NO. 296/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.108	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	50.709	2.027	-.03444	-.11315	.97390	.64654	-.00162	.41260	-.00216	-.00007
		4.547	-.03375	-.11536	.42574	.53117	-.01289	.54130	-.00229	-.00060
		GRADIENT	.00028	-.00088	-.21753	-.04578	-.00447	.05107	-.00005	-.00021

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(DNH030) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 8.000 DX = 20.000  
 SCALE = .0125 GRADIENT = .00069 MACH = .600

PARAMETRIC DATA

RUN NO. 301/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.146	2.474	-.02651	-.11428	.61408	.63624	-.00321	.39110	-.00221	.00041
7.541	4.355	-.02875	-.11298	.37869	.52950	-.01311	.46246	-.00253	.00011
	GRADIENT	-.00119	.00069	-.12521	-.05678	-.00526	.03796	-.00017	-.00016

RUN NO. 302/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.020	2.021	-.02499	-.11534	.70857	.65572	-.00313	.39403	-.00229	.00033
10.077	4.495	-.02706	-.10935	.34524	.50770	-.01404	.47316	-.00288	-.00001
	GRADIENT	-.00084	.00242	-.14686	-.05983	-.00441	.03199	-.00024	-.00014

RUN NO. 303/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.987	2.172	-.02278	-.11218	.60106	.62932	-.00344	.39892	-.00223	.00021
14.608	4.441	-.02442	-.10951	.31542	.51216	-.01353	.47637	-.00295	-.00001
	GRADIENT	-.00072	.00118	-.12592	-.05164	-.00445	.03414	-.00032	-.00010

RUN NO. 304/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
30.123	1.934	-.02643	-.11172	.78313	.63959	-.00186	.40107	-.00243	.00002
29.781	4.549	-.02982	-.11666	.37597	.54039	-.01379	.51341	-.00233	-.00063
	GRADIENT	-.00130	-.00189	-.15569	-.03793	-.00456	.04296	.00004	-.00025

RUN NO. 305/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.889	2.080	-.03388	-.11196	.93332	.63408	-.00250	.41581	-.00246	-.00024
44.724	4.413	-.03469	-.11582	.45093	.54147	-.01205	.51412	-.00245	-.00066
	GRADIENT	-.00035	-.00165	-.20679	-.03970	-.00409	.04214	.00001	-.00018

RUN NO. 306/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.425	2.067	-.03405	-.110641	.94413	.60343	-.00201	.41492	-.00240	-.00006
50.408	4.416	-.03800	-.11483	.49362	.53565	-.01284	.53282	-.00237	-.00075
	GRADIENT	-.00168	-.00358	-.19182	-.02886	-.00461	.05020	.00001	-.00029

ARC 14-120(CA23B) 747/1 AT1 03SI (ORBITER DATA)

(DNH031) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 311/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.139	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	7.034		-.02506	-.11848	.58862	.81921	.00959	.29153	-.00188	.00042
		GRADIENT	-.02510	-.12080	-.32910	.67753	-.00029	.34904	-.00240	.00037
			-.00002	-.00120	-.13415	-.07324	-.00511	.02973	-.00027	-.00002

RUN NO. 312/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.707	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	9.890		-.02412	-.11866	.69479	.84432	.00976	.29390	-.00199	.00036
		GRADIENT	-.02404	-.11577	.30304	.63820	-.00135	.35962	-.00242	.00035
			.00003	.00113	-.15301	-.08051	-.00434	.02567	-.00017	-.00000

RUN NO. 313/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.857	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	14.654		-.02152	-.11919	.62868	.84748	.00991	.29682	-.00192	.00034
		GRADIENT	-.02343	-.11366	.29706	.62948	-.00148	.36353	-.00263	.00047
			-.00075	.00216	-.12939	-.08506	-.00444	.02605	-.00028	.00005

RUN NO. 314/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.665	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	29.802		-.03245	-.11754	.93809	.83690	.01061	.30401	-.00226	.00015
		GRADIENT	-.02852	-.11253	.38367	.63688	-.00040	.37497	-.00230	-.00007
			.00173	.00220	-.24316	-.08772	-.00483	.03112	-.00001	-.00010

RUN NO. 315/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.676	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	44.732		-.03314	-.11820	.96397	.84522	.01108	.30543	-.00213	.00006
		GRADIENT	-.03956	-.11536	.51921	.64588	-.00114	.39231	-.00257	.00000
			-.00267	.00118	-.18536	-.08307	-.00509	.03621	-.00018	-.00002

RUN NO. 316/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.207	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	50.098		-.03506	-.10948	1.00299	.77825	.01101	.30864	-.00220	.00005
		GRADIENT	-.03608	-.10926	.47336	.61233	-.00080	.39233	-.00251	-.00012
			-.00043	.00009	-.22363	-.07006	-.00499	.03534	-.00013	-.00007

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XHRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YHRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6300 IN. ZHRP = 375.0000 IN. ZO GRADIENT INTERVAL = -5.00/ 5.00 TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO.	321/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00	PHIO	PHIC	BETAO	BETAC	ALPHAC	BETAO	BETAC	PHIO	PHIC	CA	CN	CSL	CLN
DZ	3.217			.59455	.86275	-.08529	-.03589	2.384	-.08529	-.03589	.59455	.86275	.00636	.28959	-.00443	-.00121
	3.310			-.10588	-.23423	.00827	.00263	4.324	.00827	.00263	-.10588	-.23423	-.00537	.34637	-.00729	-.00146
								GRADIENT						.02926	-.00148	-.00013

RUN NO.	322/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00	PHIO	PHIC	BETAO	BETAC	ALPHAC	BETAO	BETAC	PHIO	PHIC	CA	CN	CSL	CLN
DZ	7.247			.63058	.90034	-.08867	-.03140	1.999	-.08867	-.03140	.63058	.90034	.00701	.29558	-.00404	-.00076
	7.563			-.00424	-.20086	-.08216	-.01534	4.379	-.08216	-.01534	-.00424	-.20086	-.00424	.35813	-.00614	-.00102
								GRADIENT						.02627	-.00088	-.00011

RUN NO.	323/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00	PHIO	PHIC	BETAO	BETAC	ALPHAC	BETAO	BETAC	PHIO	PHIC	CA	CN	CSL	CLN
DZ	10.032			.58939	.74527	-.08306	-.02575	1.980	-.08306	-.02575	.58939	.74527	.00787	.29427	-.00373	-.00061
	9.896			-.00336	-.12651	-.07727	-.00963	4.367	-.07727	-.00963	-.00336	-.12651	-.00336	.35553	-.00591	-.00122
								GRADIENT						.02566	-.00091	-.00025

RUN NO.	324/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00	PHIO	PHIC	BETAO	BETAC	ALPHAC	BETAO	BETAC	PHIO	PHIC	CA	CN	CSL	CLN
DZ	15.217			.62806	.41438	-.06945	-.01481	2.049	-.06945	-.01481	.62806	.41438	.00777	.29366	-.00373	-.00056
	15.047			-.00288	-.00590	-.07449	-.00044	4.248	-.07449	-.00044	-.00288	-.00590	-.00288	.36190	-.00554	-.00110
								GRADIENT						.02829	-.00082	-.00025

RUN NO.	325/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00	PHIO	PHIC	BETAO	BETAC	ALPHAC	BETAO	BETAC	PHIO	PHIC	CA	CN	CSL	CLN
DZ	29.998			.68540	.20473	-.09627	-.00706	1.976	-.09627	-.00706	.68540	.20473	.00973	.30380	-.00308	-.00020
	29.890			-.00161	-.08191	-.08313	.00614	4.301	-.08313	.00614	-.08191	-.08313	-.00161	.37995	-.00423	-.00054
								GRADIENT						.03275	-.00049	-.00014

RUN NO.	326/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00	PHIO	PHIC	BETAO	BETAC	ALPHAC	BETAO	BETAC	PHIO	PHIC	CA	CN	CSL	CLN
DZ	44.648			.66315	.38496	-.01315	-.01315	1.958	-.01315	-.01315	.66315	.38496	.01078	.30480	-.00268	-.00031
	44.989			-.00119	-.10617	-.09105	-.00801	4.325	-.09105	-.00801	-.00119	-.10617	-.00119	.39172	-.00344	-.00052
								GRADIENT						.03673	-.00032	-.00009

ARC 14-120(CA23B) 747/1 ATI 03S1 (ORBITER DATA)

(DNH032) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 327/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
49.978	1.969	-0.1805	-0.09477	.52540	.67894	.01114	.30625	-0.00278	-0.00021
50.163	4.264	-0.01263	-0.09327	.16993	.52712	-0.00086	.39453	-0.00320	-0.00046
	GRADIENT	.00236	.00065	-.15489	-.06615	-.00523	.03847	-0.00018	-0.00011

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 03S1 (ORBITER DATA)

(DNH033) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 331/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.500	2.446	-0.2145	-0.07366	.50255	.41024	-0.0649	.40031	-0.00542	-0.00084
7.613	4.292	-0.00208	-0.07009	.32960	.47746	-0.01622	.47746	-0.00775	-0.00075
	GRADIENT	.01050	.00194	-.25727	-.04370	-.00528	.04181	-0.00126	.00005

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 332/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.263	1.907	-0.01773	-0.07840	.53273	.44991	-0.00459	.39392	-0.00446	-0.00071
9.859	4.322	.00573	-0.07059	.33288	.47883	-0.01534	.47883	-0.00686	-0.00087
	GRADIENT	.00971	.00323	-.25205	-.04845	-.00445	.03516	-0.00099	-0.00007

RUN NO. 333/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
15.012	1.933	-0.00765	-0.08521	.52675	.48908	-0.00402	.39324	-0.00429	-0.00059
14.957	4.327	.01880	-0.07346	.34564	.48724	-0.01479	.48724	-0.00603	-0.00098
	GRADIENT	.01105	.00491	-.19876	-.05992	-.00450	.03926	-0.00073	-0.00016

RUN NO. 334/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.834	1.958	.00868	-0.08245	-.25403	.47344	-0.00294	.40329	-0.00333	-0.00035
29.957	4.362	.02584	-0.07647	-.33975	.35859	-0.01376	.51902	-0.00378	-0.00140
	GRADIENT	.00714	.00249	-.03565	-.04777	-.00450	.04813	-0.00019	-0.00044



(DNH033) ( 21 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 335/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CSL	CLN
44.819	1.871	-.00446	-.08594	.13655	.49825	-.00180	-.00300	-.00060
45.000	4.278	.00050	-.08435	-.00674	.39760	-.01272	-.00346	-.00105
	GRADIENT	.00206	.00066	-.05955	-.04182	-.00454	-.00019	-.00019

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CSL	CLN
50.002	1.913	-.01351	-.09054	.40462	.52405	-.00171	-.00287	-.00044
50.443	4.260	-.00681	-.08550	-.09174	.40359	-.01266	-.00322	-.00087
	GRADIENT	.00285	.00215	-.13329	-.05132	-.00456	-.00015	-.00018

RUN NO. 336/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 341/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CSL	CLN
1.515	-.031	-.04077	-.11284	-53.08770	1.09762	.01832	-.00189	-.00033
1.466	2.266	-.04009	-.11407	1.01357	.81035	.00793	-.00193	-.00031
1.364	4.259	-.04164	-.10998	.56061	.62495	-.00176	-.00235	-.00029
	GRADIENT	-.00019	.00064	12.78561	-.11056	-.00468	-.00010	.00001

RUN NO. 342/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CSL	CLN
3.218	-.127	-.03788	-.10795	-16.57080	1.02545	.01695	-.00200	-.00029
2.877	2.324	-.04051	-.10593	.99894	.74601	.00745	-.00212	-.00000
3.380	4.353	-.04091	-.10394	.53900	.61357	-.00267	-.00274	-.00009
	GRADIENT	-.00069	-.00034	3.93383	-.09269	-.00436	-.00016	.00005

(DNH034) ( 21 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LOFB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LOFB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (DNH034) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVEN = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 343/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.400	-.285	-.03668	-.10742	-7.34571	1.04426	.01782	.22687	-.00231	-.00024
7.390	2.312	-.03617	-.10413	.89645	.72887	.00717	.28693	-.00234	-.00019
7.046	4.212	-.03508	-.10322	1.47763	.58785	-.00208	-.34154	-.00277	-.00014
	GRADIENT	.00035	.00095	1.82472	-.10268	-.00441	.02536	-.00010	.00002

RUN NO. 344/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.858	-.243	-.03420	-.10667	-8.02130	1.03142	.01750	.22769	-.00247	-.00017
9.870	2.334	-.03433	-.10466	.84303	.73083	.00754	.28761	-.00239	-.00018
9.840	4.253	-.03249	-.09942	1.43814	.56184	-.00270	.35076	-.00292	-.00021
	GRADIENT	.00036	.00157	1.96825	-.10513	-.00446	.02715	-.00009	-.00001

RUN NO. 345/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.745	-.254	-.03016	-.10281	-6.76144	.99812	.01841	.22551	-.00244	-.00031
14.663	2.332	-.03132	-.10222	.76959	.71547	.00771	.29080	-.00252	-.00024
14.715	4.248	-.02981	-.09946	1.40248	.56279	-.00233	.35578	-.00280	-.00013
	GRADIENT	.00005	.00071	1.66604	-.09741	-.00458	.02873	-.00008	.00004

RUN NO. 346/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.743	-.267	-.03699	-.10822	-7.87449	1.05513	.02001	.22680	-.00277	-.00027
29.911	2.360	-.03686	-.10457	.89504	.72658	.00829	.30635	-.00265	-.00011
29.627	4.268	-.03291	-.09353	1.44225	.52895	-.00200	.37699	-.00297	-.00050
	GRADIENT	.00085	.00313	1.92536	-.11658	-.00483	.03294	-.00004	-.00004

RUN NO. 347/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.607	-.235	-.03951	-.09929	-9.54070	.95563	.02039	.22556	-.00276	-.00052
44.784	2.345	-.03779	-.10021	.92333	.69784	.00919	.31082	-.00271	-.00032
44.631	4.291	-.03806	-.10475	1.50863	.59033	-.00204	.39261	-.00259	-.00057
	GRADIENT	.00034	.00116	2.31784	-.08403	-.00493	.03670	-.00004	-.00000

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RUN NO. 348/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	ETAO	PHIC	PHIO	CA	CN	CSL	CLN
DZ								
49.960	-.03498	-1.0695	-8.32467	1.04302	.02123	.22182	-.00238	-.00040
50.084	-.03742	-1.10326	.90826	.71885	.00898	.31376	-.00265	-.00022
50.051	-.03761	-.09959	.50525	.56278	-.00162	.39443	-.00279	-.00037
GRADIENT	-.00060	.00162	2.05183	-.10759	-.00505	.03812	-.00009	.00001

RUN NO. 349/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	ETAO	PHIC	PHIO	CA	CN	CSL	CLN
DZ								
61.655	-.03495	-.09233	-7.14063	.90528	.02167	.22058	-.00230	-.00032
61.629	-.03743	-.10631	.93720	.74681	.00947	.31625	-.00256	-.00034
61.640	-.03481	-.09504	.46705	.53658	-.00155	.40185	-.00225	-.00044
GRADIENT	-.00002	-.00083	1.74123	-.08005	-.00508	.03969	.00000	-.00002

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RUN NO. 351/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	ETAO	PHIC	PHIO	CA	CN	CSL	CLN
DZ								
3.392	-.03028	-1.1846	76.95740	1.69880	.02791	.11669	-.00205	.00004
3.273	-.02773	-.12457	.70017	1.16320	.01995	.17736	-.00193	.00008
3.233	-.02798	-.11301	.37812	.79606	.01092	.23903	-.00197	.00012
GRADIENT	.00056	.00119	-18.45311	-.21364	-.00400	.02882	.00002	.00002

RUN NO. 352/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	BETAC	ETAO	PHIC	PHIO	CA	CN	CSL	CLN
DZ								
7.633	-.03062	-1.1798	-8.22679	1.68804	.02803	.12585	-.00217	.00013
7.582	-.02923	-1.1905	.70182	1.08391	.01905	.18918	-.00200	.00021
7.362	-.02756	-1.1699	.36910	.81823	.01080	.24729	-.00208	.00006
GRADIENT	.00067	.00018	2.00402	-.19589	-.00381	.02687	.00002	-.00001

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ARC 14-120(CA238) 747/1 AT1 0351 (ORBITTER DATA)

(DNH035) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 4.000 DX = .000  
 CY = .000 MACH = .600

RUN NO. 353/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.664	-.213	-.02937	-.12461	-7.85370	1.80764	.02812	.12631	-.00211	.00018
9.916	2.313	-.02941	-.12008	.72877	1.10894	.01906	.19503	-.00213	.00033
9.803	4.259	-.02743	-.12130	.36932	.85163	.01041	.25470	-.00221	.00023
GRADIENT	.00041	.00079	1.91436	-.21682	-.00394	.02864	.02864	-.00002	.00001

RUN NO. 354/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
15.113	-.270	-.02868	-.11769	-6.07208	1.70827	.02863	.12974	-.00239	.00014
14.808	2.324	-.02760	-.11866	.68053	1.09587	.01974	.19909	-.00232	-.00001
14.693	4.304	-.02537	-.11239	.33796	.78558	.01058	.26210	-.00213	.00022
GRADIENT	.00071	.00108	1.46207	-.20345	-.00392	.02883	.02883	.00006	.00001

RUN NO. 355/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.891	-.272	-.03499	-.11983	-7.33018	1.75519	.03010	.12774	-.00236	.00000
29.979	2.346	-.03719	-.11686	.90855	1.07113	.02080	.21261	-.00230	.00012
29.891	4.294	-.03471	-.11535	.46363	.80534	.01135	.28212	-.00229	-.00005
GRADIENT	.00001	.00099	1.78730	-.21102	-.00408	.03374	.03374	.00002	-.00001

RUN NO. 356/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.449	-.271	-.03778	-.11801	-7.92866	1.75263	.03086	.12916	-.00228	.00022
44.799	2.322	-.03663	-.11132	.90396	1.02451	.02199	.21693	-.00233	-.00018
44.865	4.260	-.03708	-.10619	.49913	.74408	.01184	.29423	-.00251	-.00022
GRADIENT	.00017	.00261	1.94455	-.22576	-.00416	.03629	.03629	-.00005	-.00000

ARC 14-120(CA23B) 74771 AT1 03S1 (ORBITER DATA) (DNH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 361/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
1.654	2.302	-.18193	-.13030	4.52066	.91938	.00882	.28028	-.00230	-.00033
2.469	4.194	-.18847	-.12982	2.57555	.73367	-.00094	.33987	-.00275	-.00011
	GRADIENT	-.00346	.00020	-1.02807	-.09815	-.00516	.03150	-.00024	.00011

RUN NO. 362/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
2.877	2.012	-.18082	-.12648	5.13611	.90360	.00901	.28306	-.00227	-.00023
3.365	4.405	-.18854	-.12935	2.45340	.72225	-.00177	.34559	-.00267	.00004
	GRADIENT	-.00322	-.00120	-1.12130	-.07580	-.00451	.02614	-.00017	.00011

RUN NO. 363/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.393	2.013	-.18941	-.13656	5.37556	.96700	.00806	.29499	-.00248	.00015
7.226	4.376	-.19125	-.13052	2.50473	.73206	-.00205	.35412	-.00297	.00006
	GRADIENT	-.00078	.00255	-1.21489	-.09942	-.00428	.02502	-.00021	-.00004

RUN NO. 364/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.858	2.049	-.19109	-.13563	5.32907	.95756	.00840	.29541	-.00240	.00027
10.104	4.457	-.19254	-.12677	2.47594	.70225	-.00272	.36310	-.00285	.00006
	GRADIENT	-.00060	.00368	-1.18471	-.10601	-.00462	.02810	-.00019	-.00014

RUN NO. 365/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.553	2.097	-.19291	-.13410	5.25682	.94518	.00883	.29921	-.00239	.00013
14.643	4.474	-.19407	-.12353	2.48618	.68639	-.00257	.37029	-.00293	.00000
	GRADIENT	-.00049	.00445	-1.16554	-.10887	-.00479	.02990	-.00023	-.00006

RUN NO. 366/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.819	2.159	-.20804	-.12852	5.50419	.89724	.00878	.31541	-.00268	.00003
29.992	4.411	-.20777	-.12151	2.69968	.67676	-.00197	.39221	-.00306	.00008
	GRADIENT	.00012	.00312	-1.24576	-.09794	-.00478	.03411	-.00017	-.00002

ARC 14-120(CA238) 747/1 AT1 03S1 (ORBITTER DATA)

(DNH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 367/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
45.057	2.052	-2.1159	-1.2790	5.88810	.90037	.01093	.31399	-.00254	-.00007
44.937	4.371	-2.1604	-1.2616	2.83211	.70425	-.00126	.40248	-.00279	-.00014
	GRADIENT	-.00192	.00075	-1.31772	-.08456	-.00526	.03815	-.00011	-.00003

RUN NO. 368/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
50.129	2.015	-2.1146	-1.2804	5.99192	.91029	.01182	.30944	-.00239	.00005
50.420	4.439	-2.1307	-1.2437	2.75051	.69045	-.00173	.41281	-.00281	-.00040
	GRADIENT	-.00066	.00151	-1.33703	-.09068	-.00559	.04264	-.00018	-.00019

RUN NO. 369/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
62.057	2.140	-2.1075	-1.2489	5.62690	.87077	.01022	.32531	-.00254	.00010
61.853	4.416	-2.1097	-1.2303	2.73775	.68473	-.00091	.41171	-.00268	-.00014
	GRADIENT	-.00010	.00082	-1.26898	-.08171	-.00489	.03795	-.00006	-.00011

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 371/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
1.955	.521	-.02268	-1.2383	2.49361	1.12166	.01641	.23025	-.00187	-.00002
1.879	2.297	-.02549	-1.1879	.63611	.82874	.00769	.28159	-.00218	-.00016
1.932	4.335	-.02949	-1.11948	.39023	.67006	-.00214	.33857	-.00235	-.00012
	GRADIENT	-.00179	.00110	-1.54099	-.11742	-.00486	.02839	-.00013	-.00002

ARC 14-120(CA238) 747/1 AT1 03S1 (ORBITTER DATA)

(DNH037) ( 21 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

STAB =  
 ELEVON =  
 DX =  
 MACH =

CLN =  
 CSL =

RUN NO. 372/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
3.611	-.073	-.02496	-.13684	-18.87120	1.27886	.01712	.23251	-.00205	.00037
3.412	2.415	-.02272	-.12938	.53920	.89499	.00741	.28209	-.00217	.00003
3.341	4.372	-.03116	-.13064	.40870	.73005	-.00248	.34090	-.00240	.00019
	GRADIENT	-.00129	.00147	4.49081	-.12483	-.00439	.02419	-.00008	-.00004

RUN NO. 373/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
7.238	-.184	-.01792	-.12654	-5.57095	1.21514	.01778	.22811	-.00226	.00012
7.611	2.515	-.02420	-.13121	.55136	.89448	.00637	.29331	-.00244	.00028
7.497	4.363	-.02543	-.11746	.33426	.65536	-.00320	.35332	-.00295	-.00003
	GRADIENT	-.00170	.00173	1.36990	-.12281	-.00459	.02729	-.00015	-.00003

RUN NO. 374/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
10.003	-.096	-.01856	-.12574	-10.99320	1.18499	.01726	.23395	-.00223	.00003
9.942	2.401	-.01770	-.12665	.42264	.87619	.00737	.28841	-.00233	.00010
10.030	4.474	-.02513	-.12354	.32219	.68248	-.00375	.36099	-.00294	.00003
	GRADIENT	-.00138	.00045	2.54688	-.11044	-.00458	.02760	-.00015	.00000

RUN NO. 375/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
14.990	.036	-.01580	-.12958	23.75730	1.19552	.01707	.23914	-.00232	.00013
14.729	2.374	-.01943	-.12262	.46896	.85170	.00808	.29019	-.00247	.00011
14.795	4.458	-.02101	-.11862	.27023	.65750	-.00322	.36453	-.00283	.00026
	GRADIENT	-.00119	.00249	-5.40509	-.12218	-.00457	.02822	-.00011	-.00009

RUN NO. 376/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
29.795	-.037	-.02028	-.12596	-29.04110	1.19126	.01904	.23664	-.00248	.00003
29.929	2.359	-.02769	-.12652	.67263	.87782	.00903	.30330	-.00249	.00009
30.138	4.506	-.02850	-.12061	.36271	.66310	-.00319	.39284	-.00265	-.00018
	GRADIENT	-.00183	.00137	6.58687	-.11655	-.00488	.03426	-.00004	-.00005

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-00 (CA238) 747/1 AT1 0351 (ORBITER DATA)

(DNH037) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 377/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
45.027	-.096	-.02459	-.12014	-14.48000	1.13302	.02092	.22591	-.00258	-.00014
44.952	2.497	-.02998	-.12302	.68807	.83991	.00852	.31944	-.00264	.00000
44.914	4.260	-.03340	-.12386	.44955	.69755	-.00160	.39672	-.00266	-.00031
	GRADIENT	-.00200	-.00087	3.60822	-.10094	-.00514	.03898	-.00002	-.00003

RUN NO. 378/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
50.481	-.036	-.02125	-.11717	30.86850	1.08333	.01961	.24173	-.00247	-.00011
50.592	2.316	-.03099	-.12711	.76690	.88282	.00988	.31386	-.00239	-.00008
50.369	4.524	-.03501	-.11877	.44383	.65317	-.00267	.41024	-.00250	-.00056
	GRADIENT	-.00307	-.00038	-6.81333	-.09579	-.00496	.03751	-.00001	-.00010

RUN NO. 379/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
61.632	-.013	-.02570	-.12245	-62.78220	1.15102	.02077	.23641	-.00246	-.00033
61.965	2.379	-.02957	-.12133	.71238	.83841	.00997	.31800	-.00252	-.00016
61.651	4.408	-.03202	-.11829	.41654	.65927	-.00164	.40891	-.00250	-.00042
	GRADIENT	-.00143	.00093	14.65652	-.11180	-.00505	.03887	-.00001	-.00002

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(DNH038) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 381/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETA0	PHIC	PHIO	CA	CN	CSL	CLN
1.603	-.046	-.03585	-.12129	37.71810	1.11331	.01987	.31545	-.00078	.00092
1.569	2.293	-.03898	-.12271	.97421	.86754	.00905	.37602	-.00087	.00083
2.306	4.387	-.04440	-.12060	.58044	.66987	-.00213	.44420	-.00136	.00094
	GRADIENT	-.00196	.00015	-8.65058	-.11390	-.00507	.02963	-.00013	.00000

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600



REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00055 MACH = .600

PARAMETRIC DATA

RUN NO. 382/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.468	.019	-.04292	-.12442	65.58800	1.15052	.01654	.33169	-.00082	.00109
3.699	2.422	-.04300	-.12381	1.01754	.85131	.00689	.38430	-.00096	.00116
3.469	4.425	-.04540	-.12016	.58844	.66722	-.00258	.44793	-.00132	.00123
	GRADIENT	-.00055	.00094	-15.15230	-.11019	-.00435	.02624	-.00011	.00003

RUN NO. 383/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.736	-.027	-.03671	-.11960	-53.27060	1.10916	.01714	.33495	-.00100	.00119
6.902	2.422	-.04018	-.12460	.95082	.86612	.00726	.38780	-.00118	.00141
7.339	4.419	-.04382	-.12334	.56875	.68592	-.00340	.46216	-.00162	.00138
	GRADIENT	-.00159	-.00089	12.48313	-.09535	-.00460	.02835	-.00014	.00005

RUN NO. 384/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
10.309	.047	-.03699	-.12375	38.45710	1.13445	.01738	.33740	-.00109	.00134
9.703	2.409	-.03787	-.12099	.90067	.83805	.00758	.39319	-.00126	.00146
10.031	4.489	-.04151	-.11816	.53038	.65168	-.00349	.46655	-.00150	.00142
	GRADIENT	-.00100	.00126	-8.70301	-.10905	-.00469	.02895	-.00009	.00002

RUN NO. 385/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
15.037	-.141	-.03593	-.11641	-14.34110	1.10172	.01938	.32545	-.00119	.00135
14.866	2.495	-.03772	-.12284	.86659	.84153	.00737	.40069	-.00136	.00152
14.876	4.418	-.03729	-.12257	.48407	.68098	-.00278	.47285	-.00148	.00157
	GRADIENT	-.00032	-.00142	3.40255	-.09268	-.00484	.03211	-.00006	.00005

RUN NO. 386/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
30.004	-.165	-.03289	-.12310	-11.30050	1.17505	.02016	.33197	-.00131	.00129
29.816	2.497	-.03586	-.11997	.82315	.82081	.00824	.41344	-.00134	.00134
30.280	4.402	-.03419	-.11822	.44541	.65465	-.00163	.49030	-.00149	.00152
	GRADIENT	-.00034	.00108	2.69869	-.11518	-.00475	.03441	-.00004	.00005

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(DNH038) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 387/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.879	.070	-.03347	-.12025	25.58280	1.11116	.02056	.33601	-.00125	.00126
44.946	2.481	-.03546	-.12293	.81918	.83934	.00949	4.1630	-.00138	.00145
44.926	4.448	-.03751	-.11277	4.8369	.62394	-.00176	.50528	-.00150	.00121
	GRADIENT	-.00092	.00160	-5.90136	-.11134	-.00508	.03847	-.00006	-.00001

RUN NO. 388/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
49.971	-.037	-.03541	-.12247	-44.04270	1.15620	.02136	.33056	-.00147	.00100
50.192	2.513	-.03630	-.12127	.82787	.82743	.00899	4.2260	-.00146	.00131
50.609	4.284	-.03528	-.12302	4.7228	.68898	-.00071	.50396	-.00147	.00138
	GRADIENT	.00000	-.00009	10.81298	-.10959	-.00509	.03985	-.00000	.00009

RUN NO. 389/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
61.515	-.115	-.03365	-.12518	-16.33250	1.19977	.02313	.31855	-.00143	.00122
60.520	2.529	-.03464	-.12084	.78499	.83717	.01025	4.1635	-.00143	.00137
	GRADIENT	-.00038	.00164	6.47423	-.13714	-.00487	.03699	-.00000	.00006

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 391/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.148	2.388	-.18785	-.12482	4.49942	.87245	.02786	.37026	-.00057	.00125
3.390	4.263	-.18878	-.11294	2.53815	.63710	.01854	4.3525	-.00096	.00094
	GRADIENT	-.00050	.00634	-1.04614	-.12554	-.00497	.03467	-.00021	-.00017

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(DNH039) ( 08 OCT 75 )

DATE 22 MAR 76 TABULATED SOURCE DATA - CA23B ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITTER DATA) (DNH039) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = 10.000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 5.000 DX = .000  
 SCALE = .0125 GRADIENT = -.00400 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO.	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
7.312	2.139	-1.19944	-1.13097	5.32723	.91607	.02778	.38048	-.00077	.00136
7.376	4.461	-2.20873	-1.12354	2.68162	.68560	.01714	.45416	-.00146	.00112
	GRADIENT	-.00400	.00320	-1.13959	-.09928	-.00458	.03174	-.00030	-.00010
10.083	2.001	-2.0379	-1.2231	2.72628	.67971	.01834	.44859	-.00120	.00108
9.885	4.424	-2.1043	.00119	-1.27561	-.08619	-.00420	.02837	-.00015	-.00009
	GRADIENT	-.00274	.00119	-1.27561	-.08619	-.00420	.02837	-.00015	-.00009
14.830	2.141	-2.1222	-1.12298	5.66248	.85717	.02850	.38690	-.00085	.00124
15.083	4.433	-2.1434	-1.12295	2.77127	.68384	.01851	.45644	-.00129	.00110
	GRADIENT	-.00093	.00001	-1.26160	-.07564	-.00436	.03034	-.00019	-.00006
29.781	2.045	-2.2127	-1.12536	6.17644	.88750	.03061	.38901	-.00105	.00117
29.790	4.494	-2.2565	-1.12372	2.87720	.68440	.01832	.48706	-.00143	.00096
	GRADIENT	-.00179	.00067	-1.34699	-.08292	-.00502	.04003	-.00015	-.00009
44.565	2.160	-2.2269	-1.12330	5.88804	.86363	.03076	.39969	-.00119	.00113
44.873	4.367	-2.2366	-1.12144	2.93447	.67831	.01987	.48848	-.00146	.00100
	GRADIENT	-.00044	.00084	-1.33798	-.08395	-.00493	.04022	-.00012	-.00006
50.286	2.123	-2.2107	-1.12019	5.94619	.84223	.03103	.39377	-.00108	.00110
50.569	4.396	-2.2250	-1.11875	2.90042	.65977	.01974	.49435	-.00129	.00086
	GRADIENT	-.00063	.00063	-1.34005	-.08027	-.00497	.04161	-.00009	-.00011

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITTER DATA)

(DNH040) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. YMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 PUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 401/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.048	ALPHAC	-0.004	BETAC	-0.04526	BETAO	-0.12383	PHIC	-84.40830	PHIO	1.79753	CA	.04895	CN	.19606	CSL	-0.00048	CLN	.00139
	3.021		2.318		-0.04739		-0.12449		1.17152		1.15912		.03978		.26142		-0.00047		.00126
	3.274		4.401		-0.04833		-0.12570		.62992		.86840		.03000		.32427		-0.00049		.00128
		GRADIENT			-0.00070		-0.00042		19.64100		-0.21215		-0.00429		.02909		-0.00000		-0.00003

RUN NO. 402/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.066	ALPHAC	-0.091	BETAC	-0.04561	BETAO	-0.12340	PHIC	-26.59500	PHIO	1.74014	CA	.04896	CN	.20851	CSL	-0.00079	CLN	.00128
	7.198		2.490		-0.04595		-0.12280		1.05741		1.10813		.03979		.26983		-0.00358		.00123
	7.335		4.405		-0.04855		-0.12015		.63211		.82845		.03019		.32955		-0.00055		.00119
		GRADIENT			-0.00062		-0.00070		6.31765		-0.20513		-0.00414		.02674		-0.00006		-0.00002

RUN NO. 403/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.793	ALPHAC	.024	BETAC	-0.04725	BETAO	-0.12556	PHIC	63.05230	PHIO	1.71279	CA	.04873	CN	.21444	CSL	-0.00082	CLN	.00143
	9.766		2.449		-0.04658		-0.12467		1.09000		1.12877		.03992		.27469		-0.00068		.00133
	9.745		4.293		-0.04791		-0.12001		.63994		.83988		.03098		.33049		-0.00070		.00123
		GRADIENT			-0.00013		-0.00125		-15.17967		-0.20634		-0.00413		.02706		-0.00003		-0.00005

RUN NO. 404/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.781	ALPHAC	-0.155	BETAC	-0.04369	BETAO	-0.12009	PHIC	-15.70640	PHIO	1.70846	CA	.05030	CN	.20418	CSL	-0.00104	CLN	.00132
	14.685		2.568		-0.04618		-0.11619		1.03042		1.03612		.03988		.28291		-0.00067		.00119
	14.592		4.303		-0.04516		-0.11327		.60193		.79139		.03118		.33940		-0.00063		.00111
		GRADIENT			-0.00038		-0.00152		3.87923		-0.20936		-0.00425		.03020		-0.00010		-0.00005

RUN NO. 405/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.804	ALPHAC	-0.120	BETAC	-0.03979	BETAO	-0.11880	PHIC	-18.37600	PHIO	1.68114	CA	.05177	CN	.20525	CSL	-0.00126	CLN	.00128
	29.944		2.563		-0.03976		-0.12496		.88899		1.10861		.04114		.29642		-0.00098		.00128
	29.835		4.329		-0.03620		-0.11079		.47959		.76592		.03249		.35640		-0.00076		.00110
		GRADIENT			.00074		-0.00147		4.47929		-0.20554		-0.00430		.03398		-0.00011		-0.00004

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .000018 MACH = .000

RUN NO. 406/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.515	-.091	-.03758	-.12018	-22.46140	1.70509	.05277	.20535	-.00114	.00125
44.728	2.446	-.03906	-.11965	.91512	1.08198	.04299	.29631	-.00091	.00117
44.671	4.476	-.03830	-.11246	.49076	.77014	.03167	.37999	-.00092	.00112
	GRADIENT			5.19729	-.20639	-.00459	.03814	.00005	-.00003

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .000018 MACH = .000

RUN NO. 411/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
3.328	2.137	-.03541	-.09515	.94918	.88790	.04034	.25483	-.00038	.00126
3.325	4.298	-.03664	-.09550	.48865	.65669	.03070	.31656	-.00036	.00113
	GRADIENT			-.21302	-.10237	-.00446	.02856	.00001	-.00006

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .000018 MACH = .000

RUN NO. 412/ 0 RN/L = 2.96 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
6.838	2.085	-.03560	-.09548	.97846	.89942	.04094	.26199	-.00073	.00116
7.184	4.439	-.03628	-.09540	.46870	.65598	.03067	.32564	-.00048	.00110
	GRADIENT			-.21656	-.10342	-.00436	.02704	.00011	-.00002

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .000018 MACH = .000

RUN NO. 413/ 0 RN/L = 2.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.770	2.218	-.03337	-.09512	.86236	.86976	.04051	.26826	-.00046	.00104
9.780	4.469	-.03503	-.09551	.44953	.65318	.03055	.31116	-.00054	.00111
	GRADIENT			-.18334	-.09618	-.00438	.02793	-.00003	-.00003

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ARC 14-120(CA238) 747/1 AT1 02S1 (ORBITER DATA)

(DNH041) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .500

PARAMETRIC DATA

RUN NO. 414/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.789	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	14.819	1.986	-.03463	-.09972	.99901	.94498	.04187	.26890	-.00090	.00114
		4.441	-.03469	-.10173	.44801	.69804	.03088	.34091	-.00078	.00109
		GRADIENT	-.00003	-.00082	-.22448	-.10060	-.00448	.02934	.00005	-.00002

RUN NO. 415/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.638	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	29.826	2.215	-.03194	-.09737	.82645	.89338	.04230	.28736	-.00093	.00112
		4.415	-.03206	-.09720	.41654	.66870	.03130	.36064	-.00086	.00110
		GRADIENT	-.00006	.00008	-.18633	-.10214	-.00500	.03331	.00003	-.00001

RUN NO. 416/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.438	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	44.694	2.214	-.02950	-.09702	.76327	.89411	.04284	.29440	-.00092	.00102
		4.330	-.03196	-.09264	.42333	.64395	.03206	.37302	-.00075	.00103
		GRADIENT	-.00117	.00207	-.16070	-.11826	-.00509	.03716	.00008	.00001

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .300

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 AT1 02S1 (ORBITER DATA)

(DNH042) ( 08 OCT 75 )

RUN NO. 421/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.128	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	3.123	2.209	-.01658	-.10574	.43017	.98557	.04183	.25803	-.00035	.00077
		4.221	-.01698	-.10352	.23072	.73034	.03305	.31937	-.00038	.00072
		GRADIENT	-.00020	.00110	-.09912	-.12683	-.00436	.03049	-.00002	-.00002

RUN NO. 422/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.085	ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
	7.303	2.291	-.01571	-.10101	.39307	.92205	.04131	.27414	-.00033	.00059
		4.347	-.01790	-.10423	.23609	.71971	.03207	.33612	-.00028	.00082
		GRADIENT	-.00106	-.00157	-.07635	-.09841	-.00449	.03015	.00002	.00011

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .300

PARAMETRIC DATA

ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
9.285	-.01697	-.10209	.44607	.95456	.04246	.26730	-.00071	.00045
9.970	-.01622	-.09942	.21396	.68472	.03248	.34016	-.00034	.00049
	.00035	.00123	-.10711	-.12452	-.00460	.03362	.00017	.00002
RUN NO. 423/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00								
ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
14.488	-.01640	-.10326	.41472	.94742	.04279	.27815	-.00051	.00061
14.575	-.01712	-.10167	.22551	.70320	.03228	.35024	-.00075	.00064
	-.00035	.00077	-.09063	-.11698	-.00503	.03453	-.00012	.00002
RUN NO. 424/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00								
ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
29.804	-.01582	-.10294	.41379	.95078	.04430	.28810	-.00089	.00062
29.724	-.01592	-.10150	.21265	.70620	.03316	.36816	-.00074	.00053
	-.00004	.00068	-.09574	-.11641	-.00530	.03810	.00007	-.00004
RUN NO. 425/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00								
ALPHAC	BETAC	BETAO	PHIC	PHIO	CA	CN	CSL	CLN
44.766	-.01510	-.09798	.39313	.90420	.04478	.29494	-.00065	.00058
44.688	-.01442	-.09990	.19389	.69668	.03343	.37452	-.00042	.00044
	.00033	-.00093	-.09653	-.10054	-.00550	.03856	.00011	-.00007
RUN NO. 426/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00								

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 ELEVON = 5.000

RUN NO. 431/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	BETA	PHIO	CA	CN	CSL	CLN
2.284	4.518	.00619	-.07861	.05098	.24640	-.00160	.00104
2.235	6.328	-.00108	.00976	.04153	.33729	-.00155	.00105
1.862	8.269	.00449	-.03124	.02942	.43339	-.00153	.00101
2.534	10.303	.00597	-.03339	.01751	.55160	-.00174	.00099
2.332	12.406	.00721	-.03358	.01316	.67531	-.00108	.00044
2.211	14.397	-.00092	.00371	.01836	.78307	-.00256	.00088
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 432/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	BETA	PHIO	CA	CN	CSL	CLN
17.824	-.729	-.00485	-.38120	.06225	-.01156	-.00163	.00108
20.582	4.597	-.00360	.04497	.05087	.24719	-.00127	.00122
20.432	6.440	-.00396	.03532	.04142	.33800	-.00127	.00110
20.388	8.441	-.00271	.01845	.02853	.44119	-.00142	.00096
20.672	10.411	.00160	-.00883	.01709	.56656	-.00169	.00071
20.407	12.376	-.00326	.01521	.01226	.67729	-.00106	.00089
20.474	14.347	.00380	-.01533	.01804	.78068	-.00236	.00003
	GRADIENT	.00023	.08003	-.00214	.04859	.00007	.00000

RUN NO. 433/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	BETA	PHIO	CA	CN	CSL	CLN
37.645	-.608	-.00168	-.15813	.06233	-.00857	-.00140	.00109
40.709	4.480	-.00898	.11499	.05188	.23600	-.00111	.00121
40.387	6.499	-.00326	.02882	.04159	.33673	-.00112	.00118
40.324	8.438	-.00031	.00213	.02969	.43290	-.00125	.00104
40.462	10.448	.00269	-.01482	.01719	.55217	-.00130	.00088
40.577	12.427	-.00046	.00214	.01137	.67306	-.00077	.00064
40.395	14.433	.00067	-.00269	.01776	.77856	-.00231	.00085
	GRADIENT	-.00144	.05368	-.00205	.04807	.00006	.00002



(DNH044) ( 09 OCT 75 )

ARC 14-120(CA23B) 03S1

PARAMETRIC DATA

BETA = .000 ELEVON = 5.000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 441/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	BETAO	PHIO	CA	CN	CSL	CLN
60.484	6.381	-.00679	.06106	.02180	.34342	-.00108	.00119
60.085	8.325	-.00701	.04841	.01019	.43677	-.00139	.00119
60.673	10.419	-.00014	-.00076	-.00352	.56041	-.00121	.00127
60.708	12.411	-.00654	.03043	-.01002	.68140	-.00061	.00108
57.099	14.003	-.00452	.01867	-.00600	.76258	-.00129	.00151
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

(DNH045) ( 09 OCT 75 )

PARAMETRIC DATA

BETA = .000 ELEVON = .000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 451/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	BETAO	PHIO	CA	CN	CSL	CLN
2.231	4.557	.03857	-.48542	.02808	.16673	-.00254	-.00028
2.483	6.357	.03400	-.30705	.01875	.25913	-.00257	-.00014
2.239	8.320	.03805	-.26297	.00735	.34780	-.00235	-.00013
1.921	10.373	.04111	-.22831	-.00612	.45791	-.00299	-.00053
2.551	12.477	.03678	-.17021	-.01122	.58988	-.00271	-.00033
2.114	14.400	.03692	-.14844	-.01041	.69366	-.00252	-.00008
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 452/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	BETAO	PHIO	CA	CN	CSL	CLN
17.573	-.792	.03262	2.35875	.03625	-.08652	-.00238	-.00065
20.373	4.401	.02005	-.26128	.02862	.16107	-.00256	-.00011
20.172	6.464	.01588	-.14105	.01841	.26564	-.00213	.00014
20.312	8.466	.03221	-.20523	.00572	.36075	-.00240	-.00023
20.516	10.508	.03387	-.18572	-.00674	.46837	-.00288	-.00023
20.115	12.332	.03109	-.14556	-.01115	.58577	-.00235	-.00031
	GRADIENT	-.00242	-.50456	-.00147	.04768	-.00004	.00011

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ARC 14-120(CA238) 03S1

(DNH045) ( 09 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 ELEVON = .000

PARAMETRIC DATA

RUN NO. 453 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAO	BETAO	PHIO	CA	CN	CSL	CLN
37.990	-.738	.02004	1.55562	.03619	-.08870	-.00241	-.00045
40.220	4.411	.02127	-.27658	.02920	.15554	-.00245	-.00019
39.923	6.397	.02454	-.22022	.01954	.25704	-.00213	-.00010
40.358	8.474	.02362	-.16026	.00723	.35135	-.00211	-.00017
40.425	10.464	.02610	-.14372	-.00564	.45887	-.00277	-.00032
40.404	12.438	.03064	-.14228	-.01013	.58455	-.00270	-.00075
40.396	14.487	.02059	-.08231	-.00916	.69354	-.00227	-.00027
	GRADIENT	.00024	-.35581	-.00136	.04743	-.00001	-.00005

ARC 14-120(CA238) 02S1

(DNH046) ( 09 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 ELEVON = .000

PARAMETRIC DATA

RUN NO. 461 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAO	BETAO	PHIO	CA	CN	CSL	CLN
38.822	-.234	-.08008	-18.92550	.05764	-.08068	-.00193	-.00082
40.088	2.253	-.08379	2.13035	.05492	.03775	-.00173	-.00090
40.254	4.484	-.08304	1.06202	.04801	.15055	-.00157	-.00097
40.159	6.430	-.08576	.76578	.03822	.24953	-.00178	-.00094
40.206	8.402	-.07712	.52783	.02606	.34318	-.00140	-.00082
40.248	10.328	-.07454	.41575	.01452	.44266	-.00158	-.00056
40.591	12.418	-.07771	.36136	.00995	.57563	-.00151	-.00038
39.934	14.328	-.07098	.28683	.01380	.67595	-.00204	-.00060
	GRADIENT	-.00064	4.31743	-.00202	.04899	.00008	.00003

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 ELLIPSON = .000  
 DZ = 50.000

DX	ALPHA	BETA0	PHI0	CA	CN	CSL	CLN	DZ
-.046	6.055	-.09231	.87503	.04059	.22831	-.00130	.00102	49.63740
.212	10.519	-.08057	.44132	.01318	.45821	-.00172	.00051	50.29570
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	471/ 0	RN/L = 3.32	GRADIENT INTERVAL = -5.00/ 5.00
RUN NO.	472/ 0	RN/L = 3.32	GRADIENT INTERVAL = -5.00/ 5.00

DX	ALPHA	BETA0	PHI0	CA	CN	CSL	CLN	DZ
4.734	5.995	-.07507	.71879	.04062	.22821	-.00144	.00075	48.86470
5.194	10.412	-.07687	.42532	.01426	.44510	-.00192	.00056	50.29140
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	472/ 0	RN/L = 3.32	GRADIENT INTERVAL = -5.00/ 5.00
RUN NO.	473/ 0	RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00

DX	ALPHA	BETA0	PHI0	CA	CN	CSL	CLN	DZ
9.687	5.974	-.08606	.82679	.04087	.22592	-.00144	.00094	49.00850
10.187	10.420	-.08502	.47009	.01449	.44271	-.00157	.00063	50.75890
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	473/ 0	RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00
RUN NO.	474/ 0	RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00

DX	ALPHA	BETA0	PHI0	CA	CN	CSL	CLN	DZ
14.701	5.891	-.08252	.80403	.04162	.21560	-.00167	.00086	48.93470
15.158	10.503	-.07754	.42535	.01367	.45266	-.00185	.00057	50.66530
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	474/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00
RUN NO.	475/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00

DX	ALPHA	BETA0	PHI0	CA	CN	CSL	CLN	DZ
19.661	5.884	-.08604	.83920	.04169	.21578	-.00164	.00097	49.39420
20.118	10.481	-.07504	.41249	.01327	.45317	-.00153	.00043	51.00510
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	475/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00
RUN NO.	476/ 0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00



ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA) (ENH008) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.02859 -.00233 .00027 .00129 .00246 .00135 .000156 -.00079 MACH = .600

PARAMETRIC DATA

Run No.	81/0	RN/L = 3.35	GRADIENT INTERVAL = -5.00/ 5.00	CPS1	CPS2
DZ	4.365				
ALPHAC	.192				
XZCP	.05446				
XYCP	.30972				
CPC	-.05783				
CPB1	-.24690				
CPB2	-.27890				
CPB3	-.26726				
CPE3	-.16942				
CPB1	-.24396				
CPB2	-.27398				
CPB3	-.26299				
CPE3	-.16194				
CPB1	-.24586				
CPB2	-.27367				
CPB3	-.25709				
CPE3	-.16403				
CPB1	-.00027				
CPB2	.00129				
CPB3	.00246				
CPE3	.00135				

Run No.	82/0	RN/L = 3.35	GRADIENT INTERVAL = -5.00/ 5.00	CPS1	CPS2
DZ	6.994				
ALPHAC	-.126				
XZCP	.04407				
XYCP	.36613				
CPC	-.04732				
CPB1	-.24239				
CPB2	-.27615				
CPB3	-.25874				
CPE3	-.16013				
CPB1	-.24761				
CPB2	-.28463				
CPB3	-.26290				
CPE3	-.16498				
CPB1	.19336				
CPB2	-.27606				
CPB3	-.25742				
CPE3	-.15916				
CPB1	-.00343				
CPB2	-.00013				
CPB3	.00021				
CPE3	.00012				

Run No.	83/0	RN/L = 3.36	GRADIENT INTERVAL = -5.00/ 5.00	CPS1	CPS2
DZ	9.751				
ALPHAC	-.141				
XZCP	.03911				
XYCP	.40309				
CPC	-.05639				
CPB1	-.24684				
CPB2	-.28083				
CPB3	-.27082				
CPE3	-.14490				
CPB1	.45510				
CPB2	-.27162				
CPB3	-.26019				
CPE3	-.13658				
CPB1	.21189				
CPB2	-.28178				
CPB3	-.26920				
CPE3	-.12975				
CPB1	-.03919				
CPB2	-.00003				
CPB3	.00053				
CPE3	.00333				

Run No.	84/0	RN/L = 3.35	GRADIENT INTERVAL = -5.00/ 5.00	CPS1	CPS2
DZ	14.752				
ALPHAC	-.014				
XZCP	.03539				
XYCP	.37674				
CPC	-.04544				
CPB1	-.23527				
CPB2	-.27569				
CPB3	-.25973				
CPE3	-.12254				
CPB1	.31875				
CPB2	-.28105				
CPB3	-.26586				
CPE3	-.12730				
CPB1	.17157				
CPB2	-.28221				
CPB3	-.26938				
CPE3	-.11097				
CPB1	-.04474				
CPB2	-.00147				
CPB3	.00215				
CPE3	.00241				

Run No.	85/0	RN/L = 3.35	GRADIENT INTERVAL = -5.00/ 5.00	CPS1	CPS2
DZ	29.536				
ALPHAC	-.028				
XZCP	.02722				
XYCP	.43476				
CPC	-.05191				
CPB1	-.24389				
CPB2	-.28095				
CPB3	-.26255				
CPE3	-.12070				
CPB1	.34404				
CPB2	-.28279				
CPB3	-.26600				
CPE3	-.12178				
CPB1	.13888				
CPB2	-.28495				
CPB3	-.27269				
CPE3	-.10780				
CPB1	-.06544				
CPB2	-.00091				
CPB3	.00232				
CPE3	.00228				

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( ENH008 ) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00564 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.873	.02216	.50328	-.06166	-.25602	-.28701	-.27309	-.16619	-.19719	-.24367
44.666	.04330	.38713	-.05433	-.28150	-.28150	-.27408	-.14552	-.19297	-.24492
45.029	.04626	.13138	-.06407	-.25304	-.28732	-.27404	-.13955	-.21025	-.25330
	.00564	-.08314	-.00033	.00085	.00007	-.00023	.00617	-.00268	-.00206

ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.039	-.106	.54553	-.05549	-.25313	-.28982	-.27619	-.16401	-.19258	-.24395
50.412	2.490	.40675	-.05911	-.25144	-.28682	-.27166	-.15036	-.19930	-.24798
50.166	4.334	.13242	-.07619	-.26425	-.29844	-.28503	-.14957	-.20875	-.26083
		-.09046	-.00445	-.00230	-.00174	-.00175	.00338	-.00357	-.00365

( ENH009 ) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .00249 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
8.075	.274	.16540	-.06801	-.25064	-.27756	-.26542	-.12528	-.20578	-.24431
7.276	2.380	.12947	-.07263	-.24849	-.27681	-.26615	-.13169	-.20947	-.25482
7.800	4.334	-.03980	-.06990	-.25347	-.28179	-.26709	-.12254	-.20671	-.24652
		-.05011	-.00049	-.00067	-.00104	-.00041	.00063	-.00025	-.00060

ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
9.930	-.015	.24790	-.06344	-.24561	-.27118	-.26117	-.12197	-.19763	-.24324
10.158	2.498	.12649	-.06061	-.24458	-.27285	-.25632	-.11580	-.19579	-.24352
9.843	4.339	-.04508	-.06651	-.25431	-.28668	-.26848	-.12965	-.20723	-.25752
		-.06617	-.00060	-.00186	-.00339	-.00147	-.00152	-.00203	-.00309

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (ENH009) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 9.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 93/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.862	-.101	.04499	.27244	-.05002	-.23708	-.26582	-.25517	-.11122	-.18200	-.22590
14.490	2.534	.05160	.09345	-.06288	-.24887	-.28293	-.26909	-.12674	-.20816	-.25020
15.108	4.322	.05208	-.06079	-.06534	-.24615	-.28119	-.26580	-.12269	-.20022	-.24615
	GRADIENT	.00167	-.07572	-.00357	-.00223	-.00370	-.00262	-.00284	-.00455	-.00493

RUN NO. 94/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.926	-.027	.03987	.26449	-.06462	-.24853	-.28374	-.27559	-.13503	-.20255	-.24722
29.957	2.539	.04522	.04725	-.06401	-.24940	-.28318	-.27042	-.13024	-.20445	-.25499
29.720	4.365	.04513	-.07894	-.07558	-.26215	-.29524	-.28110	-.13724	-.20930	-.25921
	GRADIENT	.00126	-.07862	-.00232	-.00292	-.00244	-.00104	-.00035	-.00148	-.00275

RUN NO. 95/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.465	-.192	.03462	.29437	-.06500	-.25349	-.28350	-.27297	-.13449	-.19873	-.24480
44.798	2.406	.04115	.05014	-.07212	-.25736	-.29709	-.28261	-.14211	-.21342	-.26130
44.826	4.485	.03959	-.07877	-.07512	-.26369	-.30204	-.28286	-.13531	-.21255	-.26262
	GRADIENT	.00112	-.08037	-.00219	-.00215	-.00402	-.00218	-.00029	-.00307	-.00391

RUN NO. 96/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.555	-.078	.03541	.24386	-.06365	-.25050	-.28160	-.27159	-.13006	-.20122	-.24602
50.407	2.550	.03964	.01257	-.06210	-.24949	-.28357	-.27106	-.12838	-.20611	-.24923
50.452	4.393	.03795	-.12941	-.06996	-.25736	-.29134	-.28099	-.12597	-.21144	-.25657
	GRADIENT	.00064	-.08379	-.00127	-.00140	-.00208	-.00195	.00090	-.00226	-.00228

( ENH010 ) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITTER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

SETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .000

RUN NO. 101/ 0 RN/L = 3.39 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
6.742	.132	.05354	.24686	.01292	-.21478	-.20019	-.20019	-.05073	-.13514	-.18281
7.349	2.303	.05571	.08905	-.03956	-.22526	-.25630	-.24399	-.09575	-.17977	-.22392
7.463	4.270	.05666	-.06632	-.04921	-.24015	-.27049	-.25706	-.09406	-.19315	-.23236
GRADIENT		.00076	-.07563	-.01517	-.01409	-.01356	-.01385	-.01065	-.01413	-.01209

RUN NO. 102/ 0 RN/L = 3.38 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.009	-.206	.04784	.29277	-.03644	-.22779	-.26324	-.24805	-.08575	-.17316	-.22433
10.088	2.335	.05270	.10363	-.04640	-.23607	-.26914	-.25538	-.09957	-.18687	-.23078
10.447	4.346	.05297	-.09256	-.05311	-.24493	-.27422	-.26234	-.09876	-.19638	-.23913
GRADIENT		.00116	-.08410	-.00367	-.00374	-.00241	-.00313	-.00297	-.00511	-.00322

RUN NO. 103/ 0 RN/L = 3.37 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
15.028	-.178	.04499	.29737	-.04920	-.23444	-.27112	-.25959	-.09898	-.18571	-.22789
14.812	2.367	.04988	.07999	-.04815	-.23571	-.27365	-.25694	-.10015	-.18716	-.23545
15.043	4.381	.05010	-.09991	-.05407	-.24412	-.28298	-.26633	-.09715	-.19575	-.24544
GRADIENT		.00115	-.08705	-.00100	-.00205	-.00253	-.00137	.00036	-.00213	-.00381

RUN NO. 104/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.734	-.108	.03970	.38200	-.03895	-.23142	-.26001	-.24466	-.09322	-.17265	-.22374
30.254	2.360	.04378	.01953	-.05221	-.24696	-.28172	-.25996	-.11164	-.19230	-.23767
29.860	4.407	.04367	-.13450	-.06072	-.25201	-.28921	-.27327	-.11200	-.19781	-.24856
GRADIENT		.00091	-.11551	-.00484	-.00462	-.00655	-.00633	-.00427	-.00566	-.00550

RUN NO. 105/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.868	-.111	.03717	.38880	-.05018	-.23382	-.26918	-.26080	-.12065	-.18667	-.23591
45.183	2.422	.04024	.02428	-.04788	-.23778	-.27253	-.25873	-.11100	-.18155	-.23195
45.129	4.429	.03909	-.13004	-.05862	-.24949	-.28831	-.27555	-.13305	-.19925	-.25082
GRADIENT		.00046	-.11782	-.00174	-.00337	-.00409	-.00307	-.00245	-.00257	-.00308



ARC 14-120(CA238) 747/1 ATI 02S1 (ORBITER DATA) (ENH010) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1109.0000 IN. XO STAB = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO GRADIENT = .0125 GRADIENT = .000 DX = .000 DX = .000  
 SCALE = .0125 GRADIENT = .00052 GRADIENT = .00101 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600 MACH = .600

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.418	-.076	.03573	.43543	-.05251	-.24532	-.27781	-.26672	-.13571	-.19012	-.24215
50.480	2.472	.03881	.02533	-.05049	-.24092	-.27741	-.26196	-.12906	-.18632	-.23719
50.477	4.415	.03791	-.12711	-.05746	-.25330	-.28394	-.27408	-.13340	-.20294	-.24451
	GRADIENT	.00052	-.12705	-.00101	-.00160	-.00129	-.00146	.00062	-.00263	-.00040

ARC 14-120(CA238) 747/1 ATI 02S1 (ORBITER DATA) (ENH011) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1109.0000 IN. XO STAB = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO GRADIENT = .0125 GRADIENT = .000 DX = .000 DX = .000  
 SCALE = .0125 GRADIENT = .00456 GRADIENT = .00884 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600 MACH = .600

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.151	.047	.06078	.37785	-.02504	-.22815	-.26704	-.24651	-.17467	-.16630	-.21789
3.118	2.270	.07068	.36497	-.06217	-.25314	-.28536	-.27057	-.19133	-.19265	-.24284
3.528	4.264	.08002	.35221	-.06169	-.24879	-.27743	-.26726	-.18696	-.20462	-.24852
	GRADIENT	.00456	-.00607	-.00884	-.00502	-.00257	-.00503	-.00300	-.00914	-.00734

ARC 14-120(CA238) 747/1 ATI 02S1 (ORBITER DATA) (ENH012) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1109.0000 IN. XO STAB = .000 STAB = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO GRADIENT = .0125 GRADIENT = .000 DX = .000 DX = .000  
 SCALE = .0125 GRADIENT = .00663 GRADIENT = .00399 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600 MACH = .600

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.547	-.170	.04146	.41714	-.03591	-.24061	-.27653	-.26324	-.18338	-.17726	-.23343
7.199	2.385	.05883	.36679	-.05340	-.24932	-.28064	-.26966	-.19151	-.19499	-.23701
7.175	4.427	.07075	.30977	-.05944	-.24495	-.27729	-.26714	-.18695	-.20111	-.24281
	GRADIENT	.00663	-.02399	-.00541	-.00112	-.00025	-.00098	-.00095	-.00548	-.00208

ARC 14-120(CA238) 747/1 ATI 02S1 (ORBITER DATA) (ENH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1109.0000 IN. XO STAB = .000 STAB = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO GRADIENT = .0125 GRADIENT = .000 DX = .000 DX = .000  
 SCALE = .0125 GRADIENT = .00733 GRADIENT = .00332 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600 MACH = .600

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
9.781	-.120	.03490	.37357	-.04804	-.24916	-.28326	-.26872	-.19287	-.18547	-.23912
9.781	2.353	.05283	.36283	-.05779	-.25112	-.28351	-.26932	-.18792	-.19542	-.24094
9.491	4.419	.06817	.31726	-.06303	-.25247	-.27712	-.26712	-.18897	-.19566	-.24363
	GRADIENT	.00733	-.01215	-.00332	-.00073	.00130	.00026	.00090	-.00230	-.00098

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(ENH011) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 114/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.874	-.041	.02590	.36570	-.04195	-.24857	-.28754	-.27046	-.17542	-.17809	-.23309
14.967	2.414	.04697	.37900	-.05428	-.24979	-.28303	-.26601	-.17717	-.19473	-.23888
14.923	4.392	.06414	.33706	-.06914	-.25560	-.28365	-.27472	-.18882	-.20244	-.25299
	GRADIENT	.00862	-.00599	-.00609	-.00154	-.00138	-.00085	-.00293	-.00554	-.00440

RUN NO. 115/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.907	-.177	.01090	.42504	-.03708	-.24863	-.28499	-.27278	-.17272	-.17033	-.23138
29.803	2.432	.03766	.46214	-.05142	-.25021	-.28236	-.26828	-.16703	-.19068	-.23878
29.693	4.435	.05623	.33114	-.06203	-.25346	-.28488	-.27396	-.18184	-.20766	-.24840
	GRADIENT	.00985	-.01866	-.00541	-.00103	-.00007	-.00016	-.00177	-.00808	-.00365

RUN NO. 116/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.786	-.134	.00329	.50046	-.03803	-.24893	-.28893	-.27320	-.17481	-.17454	-.23560
45.057	2.347	.03178	.47353	-.05084	-.25031	-.28360	-.27535	-.17654	-.19439	-.23540
44.452	4.450	.04970	.34545	-.05966	-.25592	-.28560	-.27010	-.17945	-.19817	-.25058
	GRADIENT	.01016	-.03313	-.00473	-.00150	-.00077	-.00063	-.00100	-.00524	-.00317

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(ENH012) ( 08 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 121/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.209	-.038	.05588	.27582	-.04476	-.23527	-.27003	-.25969	-.17478	-.18672	-.22811
3.176	2.411	.07376	.25475	-.06509	-.23995	-.26971	-.25770	-.17575	-.19898	-.24465
3.398	4.319	.07754	.16974	-.06806	-.24615	-.27247	-.25625	-.15790	-.20788	-.24589
	GRADIENT	.00516	-.02414	-.00557	-.00054	-.00054	-.00080	-.00377	-.00495	-.00426

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITTER DATA)

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00024 DY = .600

RUN NO. 122/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYZP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.586	-.026	.04612	.30310	-.06270	-.24569	-.26564	-.26039	-.07058	-.19160	-.24122
7.752	2.399	.06472	.25116	-.05996	-.24464	-.27400	-.25852	-.04715	-.19767	-.23584
7.261	4.448	.06978	.17945	-.06395	-.24772	-.27355	-.26156	-.02693	-.19525	-.24505
	GRADIENT	.00536	-.02814	-.00024	-.00043	-.00182	-.00023	.00975	-.00087	-.00076

RUN NO. 123/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYZP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.180	-.156	.04146	.29185	-.04994	-.24086	-.27125	-.25285	-.00888	-.18193	-.22939
9.988	2.1439	.06163	.25185	-.05856	-.24133	-.27032	-.25569	-.01945	-.19370	-.23946
10.110	4.458	.06629	.14481	-.06265	-.24424	-.27842	-.26320	-.00524	-.20472	-.23890
	GRADIENT	.00549	-.03044	-.00278	-.00071	-.00146	-.00219	.00056	-.00492	-.00215

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITTER DATA)

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00024 DY = .600

RUN NO. 131/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYZP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.093	.127	.05851	.52140	-.03639	-.23082	-.26651	-.25380	.50742	-.16403	-.21351
3.006	2.255	.07320	.35723	-.05312	-.23701	-.26123	-.25324	.51825	-.18032	-.23062
3.460	4.338	.07743	.30161	-.06760	-.24405	-.27609	-.26141	.52664	-.19013	-.24459
	GRADIENT	.00450	-.05229	-.00741	-.00314	-.00226	-.00180	.00457	-.00620	-.00738

RUN NO. 132/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYZP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.217	-.139	.04581	.54870	-.04765	-.24226	-.27111	-.26263	.49033	-.17283	-.23315
7.234	2.360	.06452	.42839	-.05033	-.23519	-.26767	-.25557	.46827	-.17646	-.22870
7.262	4.367	.06551	.33586	-.05981	-.23580	-.27262	-.25502	.35226	-.18815	-.24121
	GRADIENT	.00535	-.04725	-.00263	.00149	.00111	.00172	-.02976	-.00332	-.00165

ORIGINAL PAGE IS  
 OF POOR QUALITY

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(ENH013) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.04595 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 133/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.116	-.237	.04150	.50194	-.05174	-.24239	-.27560	-.26328	.28218	-.17759	-.23088
9.960	2.407	.06266	.49044	-.05315	-.23714	-.27317	-.25664	.26388	-.17021	-.22575
9.890	4.371	.06704	.27880	-.06022	-.23957	-.27203	-.25358	.25358	-.17519	-.23389
GRADIENT		.00568	-.04595	-.00177	.00069	.00078	.00095	-.00624	.00065	-.00051

RUN NO. 134/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
15.175	-.191	.03793	.53098	-.04449	-.23254	-.26943	-.25691	.28873	-.17307	-.22986
14.756	2.411	.05782	.48094	-.05455	-.23984	-.26996	-.25775	.27398	-.17202	-.23170
15.038	4.441	.06266	.24904	-.05798	-.23773	-.26950	-.25755	.24750	-.18152	-.24289
GRADIENT		.00544	-.05895	-.00295	-.00120	-.00025	-.00015	-.00875	-.00172	-.00272

RUN NO. 135/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
30.192	-.063	.03234	.48356	-.04075	-.23352	-.27045	-.25497	.27882	-.16591	-.22320
29.830	2.435	.05153	.42690	-.05094	-.23715	-.27140	-.25427	.26767	-.17109	-.23633
29.948	4.393	.05504	.19079	-.06885	-.24955	-.28204	-.27022	.24368	-.19182	-.24901
GRADIENT		.00521	-.06378	-.00621	-.00350	-.00250	-.00326	-.00773	-.00565	-.00577

RUN NO. 136/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.708	-.049	.02944	.78431	-.03500	-.23131	-.27095	-.25927	.27725	-.16343	-.22099
44.452	2.450	.04766	.54199	-.05160	-.23522	-.27264	-.26396	.24946	-.17595	-.23874
44.667	4.474	.04998	.19343	-.05913	-.24202	-.27724	-.26288	.23836	-.17808	-.24392
GRADIENT		.00465	-.12936	-.00539	-.00234	-.00136	-.00084	-.00870	-.00330	-.00515

RUN NO. 137/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.164	-.057	.02681	.76044	-.03782	-.23586	-.27303	-.26164	.25517	-.16940	-.23261
50.275	2.433	.04497	.60538	-.04754	-.23537	-.26757	-.25837	.21716	-.17258	-.22941
50.038	4.464	.04768	.19169	-.05828	-.24230	-.28214	-.26290	.22844	-.18837	-.24555
GRADIENT		.00471	-.12344	-.00450	-.00136	-.00186	-.00022	-.00626	-.00409	-.00271

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = 10.000  
 SCALE = .0125 GRADIENT = -.03799 -.00834 .00180

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 141/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.324	2.292	.06258	.57108	-.04756	-.23131	-.26175	-.24653	-.21283	-.17477	-.23131
3.528	4.239	.06607	.49714	-.06379	-.23635	-.26647	-.25507	-.21844	-.18182	-.24042
	GRADIENT	.00180	-.03799	-.00834	-.00259	-.00242	-.00439	-.00289	-.00362	-.00468

RUN NO. 142/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.340	1.933	.05455	.52363	-.05874	-.24302	-.27480	-.26118	-.22993	-.17999	-.24488
7.097	4.300	.05873	.42885	-.04822	-.22730	-.25983	-.24917	-.21226	-.17316	-.23331
	GRADIENT	.00176	-.04003	.00444	.00664	.00632	.00507	.00746	.00288	.00489

RUN NO. 143/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.137	1.946	.05090	.89064	-.06467	-.24521	-.27869	-.26182	-.22994	-.18575	-.24601
9.825	4.403	.05628	.54804	-.06048	-.23581	-.26892	-.25725	-.21491	-.17773	-.24070
	GRADIENT	.00219	-.13943	.00171	.00383	.00398	.00186	.00612	.00326	.00216

RUN NO. 144/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.831	1.968	.04749	.78111	-.05634	-.23946	-.27592	-.26259	-.21905	-.17715	-.24027
14.775	4.376	.05261	.43210	-.05811	-.23987	-.27546	-.26378	-.21868	-.18418	-.24368
	GRADIENT	.00213	-.14496	-.00074	-.00017	.00019	-.00050	.00015	-.00292	-.00141

RUN NO. 145/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
30.007	1.997	.04285	.72571	-.05278	-.23729	-.27594	-.25798	-.20328	-.17280	-.23920
29.873	4.392	.04794	.37018	-.06798	-.24617	-.28040	-.26693	-.20870	-.18363	-.24590
	GRADIENT	.00212	-.14845	-.00635	-.00371	-.00187	-.00374	-.00226	-.00452	-.00280

RUN NO. 146/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.854	1.998	.04018	.72711	-.06377	-.24475	-.28041	-.26152	-.21042	-.17289	-.24262
44.891	4.430	.04439	.33112	-.05910	-.24153	-.27332	-.26336	-.20677	-.19033	-.24988
	GRADIENT	.00173	-.16281	.00192	.00133	.00292	-.00076	.00150	-.00717	-.00298

ARC 14-120(CA239) 747/1 AT1 02S1 (ORBITER DATA)

(ENH014) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 147/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 50.387  
 50.182

ALPHAC 2.049  
 4.431  
 GRADIENT

XZCP .04035 XYCP -4.97051 CPC -.06984  
 .04400 .35938 -.06725  
 .00153 2.23755 .00109

CPB3 -.27065 CPE3 -.20907 CPS1 -.18524 CPS2 -.25191  
 -.24792 -.26656 -.20336 -.18689  
 .00257 .00172 .00240 -.00069 .00190

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 8.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA239) 747/1 AT1 02S1 (ORBITER DATA)

(ENH015) ( 08 OCT 75 )

RUN NO. 151/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.261  
 7.540

ALPHAC 2.410  
 4.362  
 GRADIENT

XZCP .05123 XYCP .23611 CPC -.05261  
 .05223 .00176 -.06359  
 .00052 -.12008 -.00562

CPB1 -.23183 CPE3 -.17769 CPS1 -.17769 CPS2 -.23264  
 -.23928 -.27291 -.25881 -.16309 -.24471  
 -.00382 -.00357 -.00314 -.00182 -.19888 .00618

RUN NO. 152/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 3.896  
 10.215

ALPHAC 2.043  
 4.469  
 GRADIENT

XZCP .04882 XYCP .22087 CPC -.05175  
 .04971 .02485 -.06914  
 .00037 -.10131 -.00717

CPB1 -.22823 CPE3 -.14406 CPS1 -.18262 CPS2 -.23801  
 -.24832 -.26244 -.24832 -.15055 -.19398 -.24554  
 -.00747 -.00702 -.00534 -.00268 -.00468 -.00311

RUN NO. 153/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 14.806  
 14.750

ALPHAC 2.079  
 4.497  
 GRADIENT

XZCP .04602 XYCP .17976 CPC -.07202  
 .04652 -.08111 -.06735  
 .00020 -.10791 .00193

CPB1 -.24590 CPE3 -.15264 CPS1 -.19618 CPS2 -.24751  
 -.24542 -.28282 -.26439 -.13673 -.19691 -.25030  
 .00020 -.00238 .00035 .00658 -.00030 -.00115

RUN NO. 154/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 30.131  
 30.087

ALPHAC 2.049  
 4.493  
 GRADIENT

XZCP .04117 XYCP .12344 CPC -.07606  
 .04092 -.08316 -.07122  
 -.00010 -.08452 .00198

CPB1 -.25358 CPE3 -.13317 CPS1 -.20021 CPS2 -.25009  
 -.27254 -.28810 -.27154 -.12713 -.19762 -.25002  
 -.00037 -.00228 .00068 .00247 .00106 .00003

(ENH015) ( 08 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO DX = 10.000  
 SCALE = .0125 MACH = .600

RUN NO. 155/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.833	2.044	.03903	.08383	-.06332	-.24753	-.27314	-.26595	-.08283	-.19254	-.24780
45.102	4.460	.03799	-.05499	-.07235	-.25346	-.29305	-.27705	-.09512	-.19815	-.24967
	GRADIENT	-.00043	-.05747	-.00374	-.00245	-.00517	-.00459	-.00509	-.00232	-.00077

RUN NO. 156/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.292	2.016	.03830	.09035	-.07667	-.25652	-.28765	-.27450	-.11049	-.19585	-.25705
50.425	4.375	.03715	-.12664	-.08066	-.26091	-.30028	-.28555	-.12083	-.20707	-.25984
	GRADIENT	-.00048	-.09197	-.00169	-.00186	-.00535	-.00468	-.00438	-.00476	-.00118

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH016) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO DX = 20.000  
 SCALE = .0125 MACH = .600

RUN NO. 161/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
2.997	2.461	.04965	.37596	-.04947	-.22882	-.26918	-.26187	-.12749	-.18249	-.23451
3.241	4.340	.05225	.27865	-.05742	-.23700	-.27998	-.26381	-.13245	-.18960	-.23781
	GRADIENT	.00139	-.05181	-.00423	-.00436	-.00522	-.00104	-.00264	-.00378	-.00176

RUN NO. 162/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.114	2.024	.04095	.35777	-.06689	-.24789	-.28382	-.26934	-.15323	-.19346	-.25084
7.110	4.482	.04484	.26349	-.08010	-.23912	-.27601	-.26082	-.13849	-.18650	-.24075
	GRADIENT	.00158	-.03835	.00276	.00357	.00318	.00347	.00600	.00283	.00410

RUN NO. 163/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.110	1.989	.03841	.37909	-.05123	-.23447	-.27452	-.25855	-.13892	-.17925	-.24150
9.502	4.485	.04300	.24667	-.05818	-.23759	-.27668	-.26446	-.14232	-.18358	-.24438
	GRADIENT	.00184	-.05305	-.00278	-.00125	-.00086	-.00237	-.00136	-.00173	-.00115

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA) (ENH016) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 164/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.885	2.147	.03724	.3469F	-.07049	-.25124	-.28471	-.27132	-.15778	-.19741	-.24401
14.669	4.296	.04142	.20645	-.06505	-.24347	-.27899	-.26923	-.14911	-.19032	-.24672
	GRADIENT	.00195	-.06539	.00253	.00361	.00266	.00097	.00404	.00330	-.00127

RUN NO. 165/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.970	2.006	.03606	.32948	-.06254	-.24353	-.27833	-.26548	-.15303	-.18409	-.24112
29.738	4.442	.04091	.22143	-.06019	-.24160	-.27978	-.26624	-.14819	-.18880	-.24350
	GRADIENT	.00199	-.04435	.00096	.00079	-.00059	-.00031	.00199	-.00194	-.00098

RUN NO. 166/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.740	2.001	.03593	.40757	-.07121	-.25301	-.28273	-.26988	-.15903	-.18848	-.25060
44.620	4.440	.04045	.15458	-.06431	-.24036	-.27692	-.26473	-.15017	-.19025	-.24713
	GRADIENT	.00185	-.10373	.00283	.00519	.00238	.00211	.00363	-.00073	.00142

RUN NO. 167/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.218	1.983	.03557	.42657	-.06048	-.24270	-.27529	-.26524	-.15715	-.18078	-.24840
50.509	4.478	.04000	.12951	-.06513	-.24928	-.28159	-.26883	-.15395	-.18789	-.25172
	GRADIENT	.00178	-.11904	-.00187	-.00264	-.00253	-.00144	.00129	-.00285	-.00133



ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA)

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 8.000 DX = 20.000  
 SCALE = .0125 GRADIENT = -.00025 MACH = .600

PARAMETRIC DATA  
 RUN NO. 171/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC XZCP XYCP CPC CPB1 CPB2 CPB3 CPE3 CPS1 CPS2  
 7.409 2.320 .04467 .16299 -.23103 -.27279 -.25896 -.20691 -.19606 -.24188  
 7.682 4.409 .04414 -.01823 -.24601 -.28595 -.27101 -.21394 -.20199 -.24873  
 GRADIENT -.00025 -.08677 -.00308 -.00717 -.00630 -.00577 -.00337 -.00337 -.00284 -.00328

RUN NO. 172/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC XZCP XYCP CPC CPB1 CPB2 CPB3 CPE3 CPS1 CPS2  
 10.200 1.989 .04223 .15163 -.24498 -.28330 -.26638 -.20725 -.20136 -.24926  
 9.876 4.367 .04206 -.04356 -.24954 -.28852 -.27011 -.20488 -.20434 -.24819  
 GRADIENT -.00007 -.08082 -.00016 -.00192 -.00346 -.00157 .00100 .00100 -.00125 .00045

RUN NO. 173/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC XZCP XYCP CPC CPB1 CPB2 CPB3 CPE3 CPS1 CPS2  
 14.980 2.042 .03989 .11914 -.25462 -.29018 -.27333 -.20864 -.21238 -.25703  
 14.840 4.390 .03957 -.05068 -.25523 -.29491 -.27760 -.20702 -.20702 -.25416  
 GRADIENT -.00014 -.07233 -.00235 -.00026 -.00202 -.00182 .00069 .00069 .00229 .00122

RUN NO. 174/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC XZCP XYCP CPC CPB1 CPB2 CPB3 CPE3 CPS1 CPS2  
 30.168 1.994 .03718 .11374 -.25794 -.29129 -.28005 -.21075 -.20487 -.25972  
 29.810 4.397 .03699 -.06613 -.26007 -.29768 -.28226 -.20838 -.21054 -.25763  
 GRADIENT -.00008 -.07487 -.00017 -.00126 -.00366 -.00092 .00099 .00099 .00236 .00087

RUN NO. 175/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC XZCP XYCP CPC CPB1 CPB2 CPB3 CPE3 CPS1 CPS2  
 44.854 2.109 .03651 .03714 -.24997 -.28808 -.26943 -.20483 -.20213 -.24997  
 45.244 4.417 .03540 -.08333 -.26259 -.29755 -.27939 -.20867 -.20813 -.25717  
 GRADIENT -.00048 -.05220 -.00527 -.00547 -.00410 -.00431 -.00166 .00166 .00260 .00312

RUN NO. 176/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC XZCP XYCP CPC CPB1 CPB2 CPB3 CPE3 CPS1 CPS2  
 50.344 2.118 .03514 .07841 -.24766 -.28177 -.27013 -.20093 -.19867 -.25334  
 50.595 4.352 .03491 -.07524 -.25755 -.29541 -.27756 -.20861 -.20482 -.26053  
 GRADIENT -.00055 -.06878 -.00099 -.00443 -.00611 -.00333 .00333 .00333 .00275 .00322

ORIGINAL SOURCE DATA  
 OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(ENH018) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 181/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPSE2
3.378	2.472	.07096	-.13422	-.06464	-.24736	-.27253	-.26441	-.18726	-.19024	-.24952
3.590	4.405	.07803	-.67489	-.06726	-.24807	-.27937	-.26588	-.18519	-.19490	-.25265
	GRADIENT	.00366	-.27958	-.00135	-.00037	-.00354	-.00076	.00107	-.00241	-.00162

RUN NO. 182/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPSE2
7.711	2.009	.05000	-.05661	-.07757	-.25456	-.28825	-.27675	-.20163	-.20350	-.25857
7.202	4.378	.06815	-.51759	-.07549	-.25422	-.28627	-.27568	-.19582	-.20071	-.26400
	GRADIENT	.00344	-.19035	.00088	.00014	.00083	.00045	.00245	.00118	-.00229

RUN NO. 183/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPSE2
9.911	2.005	.05788	.02737	-.07815	-.25641	-.28443	-.27216	-.19797	-.20064	-.25828
10.102	4.475	.06498	-.66327	-.07170	-.25077	-.28771	-.27180	-.19117	-.20061	-.26074
	GRADIENT	.00287	-.27962	.00261	.00229	-.00133	.00014	.00275	.00001	-.00100

RUN NO. 184/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPSE2
14.973	2.102	.05474	.09579	-.07556	-.26004	-.29587	-.28250	-.19882	-.20764	-.26379
14.736	4.362	.06146	-.36029	-.07386	-.25431	-.28398	-.27319	-.18877	-.20414	-.26241
	GRADIENT	.00297	-.20173	.00075	.00253	.00526	.00412	.00444	.00155	.00061

RUN NO. 185/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPSE2
29.716	2.100	.04723	.25636	-.07440	-.25998	-.28957	-.28397	-.19785	-.20745	-.26238
29.761	4.335	.05249	-.03519	-.07016	-.25617	-.28857	-.27615	-.19138	-.20002	-.25482
	GRADIENT	.00235	-.13046	.00190	.00170	.00045	.00350	.00290	.00332	.00338

RUN NO. 186/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPSE2
44.733	1.972	.04246	.34928	-.06436	-.25112	-.28522	-.27304	-.18941	-.19807	-.25491
44.856	4.308	.04737	.05391	-.06632	-.24991	-.28177	-.26981	-.18592	-.20428	-.25693
	GRADIENT	.00210	-.12644	-.00084	.00052	.00148	.00181	.00149	-.00266	-.00087

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.13154 -.00151 .00155 -.00058 -.00459 -.00217 -.00604 -.00815

RUN NO. 187/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
49.952	2.021	.04088	.34071	-.06794	-.25759	-.29069	-.27115	-.19097	-.19301	-.24457
50.410	4.396	.04577	.0283	-.07152	-.25391	-.29207	-.28206	-.19573	-.20737	-.26392

(ENH019) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.20402 -.00319 -.00412 -.00398 -.00330 -.00167 -.00208 -.00344

RUN NO. 191/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.491	2.405	.05706	-.23786	-.06455	-.24878	-.27692	-.26610	-.16492	-.19711	-.24797
7.844	4.380	.05782	-.64083	-.07085	-.25693	-.28478	-.27261	-.16822	-.20121	-.25476

(ENH019) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 10.000 DX = .000  
 SCALE = .0125 GRADIENT = -.08764 .00052 -.00088 -.00325 -.00361 .00353 -.00016 -.00187

RUN NO. 193/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.864	1.964	.05030	-.05855	-.07683	-.25386	-.28532	-.27012	-.17201	-.20374	-.25466
15.018	4.414	.05199	-.27326	-.07557	-.25600	-.29328	-.27896	-.16335	-.20414	-.25925

(ENH019) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 10.000 DX = .000  
 SCALE = .0125 GRADIENT = -.01707 -.07603 -.07688 -.00314 -.00167 .00145 -.00072 -.00177

RUN NO. 194/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
30.225	2.014	.04498	.01707	-.07603	-.25810	-.29089	-.27916	-.18133	-.20772	-.25597
30.105	4.404	.04476	-.29380	-.07688	-.26561	-.29855	-.28316	-.17786	-.20945	-.26021

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH019) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 195/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.421	2.014	.04190	.02346	-.07806	-.26248	-.29318	-.27876	-.18535	-.21524	-.25394
45.079	4.380	.04077	-.07631	-.08899	-.27285	-.31148	-.29336	-.18598	-.21955	-.26299
	GRADIENT	-.00048	-.04428	-.00462	-.00438	-.00774	-.00617	-.00027	-.00182	-.00382

RUN NO. 196/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.290	2.002	.04085	.05374	-.06750	-.25046	-.28398	-.26830	-.17750	-.20047	-.24317
50.279	4.323	.03947	-.16453	-.07574	-.26322	-.30125	-.28641	-.18283	-.21008	-.26241
	GRADIENT	-.00059	-.09401	-.00355	-.00549	-.00744	-.00780	-.00230	-.00414	-.00829

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH020) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
2.999	.056	.39863	.26105	-.03439	-.22954	-.26895	-.25653	-.18878	-.17205	-.21875
2.972	2.231	.29254	.24623	-.06544	-.24740	-.28299	-.26785	-.20038	-.19161	-.24288
3.376	4.258	.24754	.23566	-.05138	-.23260	-.26636	-.25367	-.18750	-.19479	-.23314
	GRADIENT	-.03612	-.00605	-.00417	-.00082	.00053	.00061	.00024	-.00546	-.00352

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.356	-.232	.35614	.29853	-.03357	-.23656	-.27678	-.25923	-.18878	-.17204	-.22846
7.305	2.422	.26945	.24864	-.04939	-.23115	-.26787	-.26004	-.19253	-.18064	-.23709
7.176	4.286	.23535	.20830	-.06147	-.24072	-.26667	-.25721	-.19286	-.19097	-.24126
	GRADIENT	-.02714	-.01989	-.00616	-.00072	.00231	.00040	-.00094	-.00412	-.00286

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = -.02476 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00 DY = .600

PARAMETRIC DATA

RUN NO.	O	0	RN/L	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
9.998	-.190	.34066	.25702	-.05580	-.25375	-.29127	-.27877	-.20985	-.18564	-.24577
9.822	2.393	.25630	.22934	-.05492	-.24458	-.27489	-.25879	-.19441	-.18368	-.23385
9.715	4.416	.22834	.23567	-.06131	-.24450	-.27526	-.26483	-.19904	-.19690	-.24584
	GRADIENT	-.02476	-.00491	-.00113	.00208	.00361	.00324	.00251	-.00230	.00019

RUN NO.	O	0	RN/L	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.608	-.076	.31885	.25658	-.04064	-.24353	-.27829	-.26104	-.20473	-.17644	-.22683
14.941	2.433	.24089	.25604	-.04728	-.23836	-.27102	-.25941	-.19877	-.18708	-.24288
14.567	4.425	.21767	.23029	-.06068	-.24189	-.27132	-.26268	-.19814	-.18923	-.23784
	GRADIENT	-.02284	-.00560	-.00438	.00044	.00161	-.00032	.00149	-.00290	-.00261

RUN NO.	O	0	RN/L	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XZCP	XYCP	CPC	CPB1 <td>CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td></td>	CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td>	CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td>	CPE3 <td>CPS1 <td>CPS2</td> </td>	CPS1 <td>CPS2</td>	CPS2
29.742	-.160	.30440	.27306	-.05510	-.25147	-.29251	-.27519	-.21524	-.18246	-.24561
29.812	2.421	.21868	.27933	-.05340	-.24348	-.27880	-.26909	-.19880	-.18551	-.23458
29.770	4.475	.19747	.20422	-.06195	-.24859	-.28199	-.26583	-.19985	-.19635	-.24536
	GRADIENT	-.02350	-.01413	-.00139	.00073	.00240	.00203	.00343	-.00292	.00023

RUN NO.	O	0	RN/L	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XZCP	XYCP	CPC	CPB1 <td>CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td></td>	CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td>	CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td>	CPE3 <td>CPS1 <td>CPS2</td> </td>	CPS1 <td>CPS2</td>	CPS2
44.518	-.106	.29416	.31731	-.05053	-.25239	-.29748	-.27655	-.22555	-.18313	-.24165
44.662	2.474	.20358	.27619	-.04737	-.24135	-.26968	-.25187	-.19333	-.17822	-.23137
44.473	4.486	.18437	.19851	-.05562	-.23680	-.26980	-.26050	-.19489	-.18596	-.24113
	GRADIENT	-.02442	-.02541	-.00100	.00343	.00525	.00375	.00694	-.00050	.00029

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH021) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8100 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0125

XMRP = 1109.0000 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

PARAMETRIC DATA

BETA = .000 STAB = -.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 211/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.110	.173	.41452	.25224	-.03869	-.23315	-.27188	-.25425	-.21792	-.17465	-.22513
3.078	2.255	.30802	.22748	-.05057	-.23413	-.26517	-.25313	-.21700	-.18570	-.23573
3.099	4.353	.25796	.21353	-.06938	-.24387	-.27569	-.26455	-.23140	-.20595	-.25713
GRADIENT		-.03743	-.00926	-.00734	-.00257	-.00092	-.00247	-.00323	-.00749	-.00766

RUN NO. 212/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.673	-.126	.37046	.24630	-.04127	-.23371	-.27311	-.26346	-.21897	-.18064	-.22057
7.105	2.399	.28484	.24770	-.05513	-.24072	-.27120	-.25970	-.22333	-.18991	-.23109
7.181	4.355	.24296	.21351	-.05831	-.24065	-.26311	-.24921	-.21659	-.19413	-.23905
GRADIENT		-.02871	-.00694	-.00388	-.00161	-.00216	-.00263	-.00042	-.00304	-.00412

RUN NO. 213/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
9.888	-.253	.37602	.25118	-.05351	-.24854	-.28352	-.27160	-.23291	-.18998	-.23688
10.133	2.398	.26795	.26065	-.06193	-.24162	-.26835	-.25670	-.22918	-.20033	-.24479
9.989	4.413	.23410	.20391	-.06689	-.24687	-.27065	-.26008	-.22995	-.20247	-.25057
GRADIENT		-.03094	-.00943	-.00288	-.00047	-.00291	-.00263	-.00067	-.00274	-.00294

RUN NO. 214/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.808	-.052	.33433	.24131	-.05092	-.24013	-.27956	-.26474	-.22161	-.18959	-.23537
14.795	2.452	.25309	.25639	-.05233	-.24122	-.27195	-.25832	-.22065	-.18699	-.23588
14.946	4.403	.22292	.20783	-.05692	-.23454	-.26686	-.25350	-.22573	-.19447	-.24042
GRADIENT		-.02535	-.00689	-.00131	-.00118	-.00286	-.00252	-.00086	-.00100	-.00109

RUN NO. 215/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.743	-.137	.31380	.29584	-.05021	-.24849	-.28296	-.26652	-.22755	-.18010	-.23763
29.755	2.487	.22515	.26577	-.05262	-.24142	-.27191	-.25559	-.22743	-.18740	-.23661
29.747	4.402	.20165	.22420	-.06133	-.24349	-.27595	-.26254	-.23088	-.20030	-.24832
GRADIENT		-.02525	-.01553	-.00236	-.00120	-.00170	-.00107	-.00057	-.00435	-.00219

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA) (ENH021) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = -.02630 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.609	-.114	.30130	.42326	-.05274	-.24956	-.28723	-.27344	-.22940	-.17184	-.24054
44.499	2.547	.20540	.31655	-.05451	-.24433	-.27516	-.26041	-.22905	-.17998	-.24352
44.744	4.315	.18855	.34632	-.05559	-.23912	-.26725	-.25412	-.22411	-.18553	-.23697
	GRADIENT	-.02630	-.02061	-.00065	.00233	.00451	.00440	.00111	-.00309	.00065

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA) (ENH022) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.07089 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.175	180	.18036	.21105	-.04032	-.21690	-.23985	-.23013	-.23661	-.16776	-.22203
7.048	2.374	.16764	.12198	-.05100	-.22475	-.25641	-.24450	-.26399	-.18117	-.23016
7.827	4.374	.14944	-.08835	-.05929	-.23090	-.26717	-.25255	-.21628	-.18678	-.24010
	GRADIENT	-.00735	-.07089	-.00453	-.00334	-.00653	-.00537	.00457	-.00456	-.00430

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA) (ENH023) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.05455 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.008	-.095	.17224	.19754	-.04516	-.22589	-.25074	-.23939	-.18698	-.17078	-.22048
9.794	2.462	.16279	.09055	-.05619	-.22622	-.25618	-.24484	-.19195	-.18574	-.23567
10.168	4.329	.14498	-.09443	-.05854	-.23474	-.26712	-.25417	-.19778	-.19265	-.23555
	GRADIENT	-.00601	-.05455	-.00310	-.00189	-.00361	-.00327	-.00241	-.00500	-.00356

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA) (ENH024) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.05228 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.875	-.131	.17025	.20672	-.05553	-.22777	-.25745	-.24863	-.19193	-.17936	-.23499
15.107	2.479	.15889	.07262	-.06810	-.23904	-.27575	-.26557	-.20769	-.20126	-.24574
14.650	4.467	.14071	-.03730	-.06014	-.23863	-.27167	-.25542	-.19502	-.19258	-.23700
	GRADIENT	-.00632	-.05228	-.00120	-.00246	-.00329	-.00173	-.00095	-.00316	-.00063

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(ENH022) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 224/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.663	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	30.014	-.130	.16450	.20057	-.05583	-.23379	-.26328	-.24282	-.18757	-.18146	-.23512
	30.212	2.540	.14917	.04527	-.06088	-.24111	-.26458	-.25460	-.19443	-.18391	-.24246
		4.360	.12891	-.08563	-.06557	-.24766	-.27670	-.26648	-.19844	-.19951	-.24281
		GRADIENT	-.00776	-.06332	-.00215	-.00305	-.00280	-.00520	-.00243	-.00379	-.00179

RUN NO. 225/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.608	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	44.758	-.097	.16064	.23099	-.04637	-.22687	-.25058	-.23980	-.18215	-.17676	-.23657
	44.921	2.520	.14318	.04319	-.05407	-.23509	-.26710	-.25338	-.19313	-.18963	-.23913
		4.300	.12214	-.08100	-.06097	-.23982	-.27366	-.25992	-.19121	-.18880	-.23284
		GRADIENT	-.00860	-.07101	-.00329	-.00296	-.00533	-.00463	-.00222	-.00290	-.00071

RUN NO. 226/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.329	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	50.199	-.122	.15944	.26417	-.04415	-.22660	-.25872	-.24495	-.18530	-.17910	-.23038
	50.308	2.456	.14255	.05436	-.06230	-.23923	-.26629	-.25329	-.18909	-.18512	-.23949
		4.443	.11898	-.05109	-.06660	-.24688	-.27491	-.26548	-.19784	-.19692	-.24581
		GRADIENT	-.00875	-.06966	-.00502	-.00447	-.00352	-.00444	-.00268	-.00424	-.00339

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 231/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.150	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	3.398	.028	.22436	.24228	-.04239	-.22103	-.25396	-.23804	-.16301	-.16760	-.22184
	3.235	2.478	.21351	.20479	-.05171	-.22321	-.25292	-.24373	-.17054	-.17864	-.23563
		4.342	.20391	.14862	-.05232	-.22686	-.25928	-.24739	-.16850	-.18525	-.23172
		GRADIENT	-.00472	-.02138	-.00238	-.00133	-.00115	-.00218	-.00136	-.00411	-.00246

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(ENH023) ( 08 OCT 75 )

PARAMETRIC DATA



ARC 14-120(CA23B) 747/1 AT1 OES1 (ORBITER DATA)      (ENH023) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1109.0000 IN. X0      BETA = .000      STAB = 5.000  
 LREF = 474.8100 IN.      YMRP = .0000 IN. Y0      RUDDER = .000      ELEVON = .000  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. Z0      TORB = 6.000      DX = .000  
 SCALE = .0125      GRADIENT = -.02745      .00168      .00160      .00060      .00250      MACH = .600

PARAMETRIC DATA

Run No.	232/ 0	RN/L = 3.31	GRADIENT	Interval = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.044	-.157	.21035	.24586	-.05224	-.23474	-.26734	-.25532	-.17168	-.17863	-.24196
7.210	2.438	.20535	.20969	-.06034	-.23282	-.25970	-.25464	-.17373	-.18730	-.23574
7.208	4.444	.19451	.11642	-.05964	-.23013	-.25953	-.24766	-.16862	-.18993	-.23552
	GRADIENT	-.00337	-.02745	-.00168	.00099	.00176	.00160	.00060	-.00250	.00145
RUN NO. 233/ 0	RN/L = 3.31	GRADIENT	Interval = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
9.588	-.079	.20594	.25571	-.04458	-.23046	-.25643	-.24588	-.16552	-.17093	-.22938
9.981	2.449	.20118	.18845	-.06178	-.23265	-.26677	-.25211	-.17534	-.18867	-.23825
9.714	4.418	.18993	.12368	-.05704	-.23284	-.25872	-.24578	-.17190	-.18700	-.24147
	GRADIENT	-.00348	-.02923	-.00296	.00055	.00068	.00009	.00153	-.00373	-.00273
RUN NO. 234/ 0	RN/L = 3.31	GRADIENT	Interval = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.480	-.060	.20130	.27704	-.04662	-.23107	-.26111	-.24808	-.17234	-.17552	-.23187
14.703	2.510	.19587	.17268	-.05236	-.22895	-.25757	-.24137	-.16415	-.17684	-.23219
14.839	4.425	.18386	.12421	-.05533	-.23125	-.26390	-.25445	-.17270	-.18889	-.23826
	GRADIENT	-.00379	-.03444	-.00196	.00001	.00051	.00120	.00010	-.00284	-.00135
RUN NO. 235/ 0	RN/L = 3.31	GRADIENT	Interval = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.767	-.083	.19098	.29006	-.04422	-.22941	-.26397	-.24912	-.16894	-.17488	-.23103
29.743	2.454	.18344	.21383	-.05904	-.22739	-.27178	-.25659	-.17661	-.18434	-.24192
29.929	4.441	.16734	.07192	-.05842	-.23528	-.26386	-.25469	-.17327	-.19053	-.24526
	GRADIENT	-.00512	-.04739	-.00326	-.00138	-.00012	-.00131	-.00105	-.00347	-.00320
RUN NO. 236/ 0	RN/L = 3.31	GRADIENT	Interval = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.538	-.030	.18657	.31682	-.04167	-.23042	-.26774	-.25476	-.16714	-.17336	-.22528
44.541	2.408	.17470	.21749	-.04321	-.22569	-.25476	-.24534	-.16137	-.17294	-.23107
44.965	4.398	.15695	.04730	-.05824	-.23390	-.26655	-.25630	-.16482	-.18425	-.23579
	GRADIENT	-.00662	-.06013	-.00363	-.00069	.00046	-.00019	.00059	-.00236	-.00237

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH023) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 237/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
49.951	-.140	.18753	.32385	-.05060	-.23764	-.27259	-.26246	-.17361	-.18428	-.23978
49.970	2.539	.17216	.21996	-.04999	-.23021	-.25715	-.25068	-.16475	-.17660	-.23829
50.050	4.426	.15509	.07569	-.06427	-.24309	-.27662	-.25879	-.17124	-.18907	-.24841
	GRADIENT	-.00701	-.05330	-.00278	-.00093	-.03043	.00104	.00071	-.00079	-.00173

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH024) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 241/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
2.790	.104	.23564	.23745	-.04870	-.22835	-.25618	-.24726	-.16541	-.17864	-.22133
3.147	2.378	.21811	.17780	-.04750	-.22360	-.24734	-.23817	-.16347	-.17857	-.22684
3.235	4.382	.20563	.11533	-.05669	-.22903	-.25515	-.24088	-.15713	-.18756	-.22930
	GRADIENT	-.00703	-.02849	-.00181	-.00011	.00032	.00155	.00191	-.00204	-.00188

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 242/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.214	-.107	.21260	.23060	-.03794	-.22103	-.25392	-.24368	-.16359	-.17384	-.22426
7.169	2.445	.20794	.19529	-.05058	-.22428	-.24532	-.23480	-.16225	-.18032	-.22374
7.223	4.433	.19637	.11872	-.05888	-.23243	-.25642	-.24240	-.15994	-.18743	-.23270
	GRADIENT	-.00349	-.02415	-.00463	-.00246	-.00037	.00043	.00079	-.00297	-.00176

RUN NO. 243/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
9.900	-.036	.20747	.27553	-.05146	-.23119	-.26047	-.24822	-.17767	-.18379	-.23811
9.833	2.466	.20454	.19268	-.05338	-.22871	-.25268	-.23652	-.16245	-.18696	-.22655
9.797	4.354	.19323	.11468	-.05376	-.22166	-.25158	-.24295	-.16803	-.18770	-.23621
	GRADIENT	-.00313	-.03646	-.00054	.00211	.00208	.00138	.00240	-.00091	-.00065

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITTER DATA) (ENR024) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.02973 -.00429 .00324 .00185 .00804 .00504 MACH = .600

PARAMETRIC DATA

Run No.	244/0	0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
14.827	.20372	.26196	-.04015	-.21858	-.24930	-.23313	-.16629	-.16332	-.21750	
14.725	.19826	.19336	-.04796	-.22496	-.24917	-.23841	-.16955	-.18542	-.22900	
14.404	.18705	.12736	-.05973	-.22996	-.26094	-.24801	-.17474	-.19898	-.24020	
	-.00362	-.02973	-.00429	-.00255	-.00241	-.00324	-.00185	-.00804	-.00504	
Run No.	245/0	0	RN/L = 3.29	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
29.598	.19163	.26215	-.05094	-.23454	-.26620	-.25050	-.18025	-.17972	-.23374	
29.897	.18310	.17927	-.05147	-.22574	-.25429	-.24621	-.17403	-.18211	-.23329	
29.731	.10832	.08177	-.05829	-.23313	-.26115	-.25065	-.17306	-.19218	-.23825	
	-.00508	-.03955	-.00157	-.00042	-.00124	-.00003	-.00162	-.00269	-.00096	
Run No.	246/0	0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
44.528	.18776	.32597	-.05337	-.24299	-.27536	-.26145	-.19967	-.18736	-.23604	
44.796	.17395	.17986	-.06342	-.23974	-.26650	-.25526	-.19265	-.19934	-.24616	
44.981	.15623	.09304	-.06153	-.24027	-.26955	-.25240	-.17799	-.19417	-.24053	
	-.00684	-.05117	-.00187	-.00062	-.00133	-.00200	-.00466	-.00161	-.00110	
Run No.	247/0	0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1 <td>CPS2</td> <td></td>	CPS2	
49.996	.18441	.27787	-.03985	-.22498	-.26450	-.24826	-.18926	-.17681	-.22580	
50.084	.17052	.18151	-.05140	-.22993	-.25883	-.24613	-.17564	-.18266	-.23749	
50.059	.15453	.08569	-.05471	-.23014	-.26464	-.24739	-.16574	-.18784	-.23877	
	-.00655	-.04234	-.00338	-.00120	-.00012	-.00023	-.00523	-.00244	-.00299	

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 74771 AT1 02S1 (ORBITER DATA)

(ENH025) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.209	.039	.18097	.19263	-.04976	-.21516	-.24419	-.23700	-.21676	-.18613	-.22981
7.216	2.367	.16929	.11427	-.06063	-.22855	-.25513	-.24290	-.21128	-.18498	-.22855
7.326	4.353	.15413	-.01664	-.05876	-.22841	-.26180	-.24402	-.20767	-.19502	-.23029
	GRADIENT	-.00618	-.04808	-.00216	-.00315	-.00410	-.00165	.00211	-.00199	-.00009

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
9.339	-.027	.17665	.18809	-.05489	-.22188	-.24873	-.23677	-.21709	-.18120	-.22799
10.040	2.372	.16620	.09575	-.06337	-.22483	-.25218	-.24183	-.21421	-.19429	-.23519
10.061	4.478	.14712	-.05353	-.05831	-.23013	-.25894	-.24494	-.20966	-.18515	-.22905
	GRADIENT	-.00650	-.05328	-.00082	-.00182	-.00225	-.00182	.00164	-.00098	-.00030

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.643	-.013	.17315	.16798	-.04441	-.22111	-.24674	-.23325	-.21302	-.17174	-.21626
15.082	2.543	.16083	.07948	-.05129	-.22122	-.24565	-.23223	-.21021	-.18068	-.22417
14.801	4.374	.14445	-.08867	-.06787	-.23804	-.26626	-.24975	-.21966	-.20182	-.23564
	GRADIENT	-.00643	-.05698	-.00518	-.00361	-.00414	-.00350	-.00135	-.00664	-.00433

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.827	-.162	.16562	.18782	-.05542	-.23288	-.25659	-.24513	-.23208	-.18012	-.23101
30.228	2.450	.15191	.08232	-.06457	-.23155	-.26287	-.25199	-.22703	-.19491	-.23898
30.232	4.437	.13007	-.09253	-.06295	-.23924	-.26880	-.25751	-.22419	-.19651	-.23574
	GRADIENT	-.00760	-.05990	-.00173	-.00129	-.00264	-.00269	.00173	-.00367	-.00113

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.600	-.132	.16096	.20088	-.05136	-.22648	-.25619	-.24505	-.22727	-.17049	-.22276
44.018	2.364	.14511	.07147	-.05245	-.22788	-.25829	-.24160	-.21524	-.18671	-.23138
44.806	4.412	.12208	-.09910	-.06159	-.24041	-.27188	-.25547	-.21863	-.19362	-.23208
	GRADIENT	-.00848	-.06551	-.00219	-.00298	-.00336	-.00216	.00201	-.00514	-.00210

(ENH025) ( 21 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	BETA	STAB
49.823	-.233	.15949	.26013	-.05784	-.23477	-.26137	-.24860	-.23610	-.18555	-.23796	.000	-1.000
50.763	2.449	.14154	-.05792	-.05140	-.22759	-.25906	-.24185	-.22194	-.18240	-.23324	.000	.000
50.761	4.339	.11985	-.06113	-.06956	-.24646	-.27585	-.26102	-.22731	-.20008	-.24565	8.000	.000
	GRADIENT	-.00854	-.07062	-.00223	-.00221	-.00290	-.00236	.00215	-.00289	-.00145	.000	.600

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ENH027) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 261/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	BETA	STAB
7.310	.046	.13294	-.01531	-.00879	.00908	.00440	-.00384	-.24489	-.16628	-.21988	.000	.000
7.309	2.283	.13085	-.01665	-.02316	-.00665	-.00909	-.01883	-.24420	-.17413	-.23013	.000	.000
7.865	4.288	.11609	-.12989	-.02274	-.00139	-.00905	-.01289	-.22699	-.18044	-.22671	8.000	.000
	GRADIENT	-.00391	-.02650	-.00335	-.00255	-.00323	-.00222	.00415	-.00334	-.00167	.000	.600

RUN NO. 262/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	BETA	STAB
9.835	-.171	.12435	.00582	-.01647	-.00023	-.00240	-.00781	-.21944	-.17533	-.22350	.000	.000
9.901	2.437	.12418	-.04792	-.00980	.00417	-.00198	-.00569	-.21451	-.17505	-.22191	.000	.000
9.652	4.384	.11107	-.10371	-.02474	-.00664	-.01020	-.01816	-.18166	-.18001	-.22802	8.000	.600
	GRADIENT	-.00276	-.02386	-.00158	-.00124	-.00153	-.00210	.00794	-.00097	-.00090	.000	.000

RUN NO. 263/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	BETA	STAB
14.936	-.143	.12131	-.05493	-.01223	.00348	.00158	-.00627	.77182	-.16357	-.20959	.000	.000
14.990	2.462	.12002	-.09548	-.00850	-.01148	-.00330	-.00330	.79351	-.16447	-.20798	.000	.000
15.447	4.479	.10350	-.12241	-.02251	-.00221	-.00496	-.01373	.72712	-.17227	-.21863	.000	.000
	GRADIENT	-.00369	-.01464	-.00205	-.00103	-.00134	-.00148	-.00692	-.00181	-.00183	.000	.600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 264/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.711	-.161	.10760	-.04040	-.01634	.00070	-.00174	-.00498	.70498	-.16936	-.21938
29.841	2.529	.10811	-.09044	-.01512	.00441	-.00109	-.01044	.71135	-.17158	-.22107
30.092	4.385	.09352	-.12761	-.02140	-.00111	-.00385	-.01235	.69650	-.18127	-.22405
	GRADIENT	-.00286	-.01914	-.00100	-.00027	-.00041	-.00165	-.00156	-.00249	-.00100

RUN NO. 265/ 0 RN/L = 3.27 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.673	-.113	.10410	-.06477	-.00918	.00676	.01621	-.00203	.64763	-.16967	-.21447
44.791	2.534	.10403	-.08831	-.01338	.00335	-.00335	-.00625	.63245	-.16915	-.21440
44.852	4.379	.08724	-.13571	-.02335	-.00851	-.00851	-.01758	.62424	-.18058	-.23033
	GRADIENT	-.00350	-.01531	-.00305	-.00325	-.00313	-.00333	-.00524	-.00225	-.00329

RUN NO. 266/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.205	-.137	.10048	-.03505	-.02095	-.00380	-.00489	-.01333	.57874	-.17305	-.22202
50.115	2.437	.10221	-.08641	-.01057	.00617	-.00068	-.01030	.59986	-.16977	-.21698
50.310	4.427	.08544	-.14077	-.02294	-.00423	-.00616	-.01634	.60276	-.17888	-.22151
	GRADIENT	-.00311	-.02301	-.00022	-.00010	-.00016	-.00057	.00540	-.00116	.00020

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 281/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.140	2.460	.14765	.02195	-.00832	.01219	.00809	-.00285	.51581	-.16617	-.21541
3.154	4.481	.14917	.00936	-.01396	.00462	.00134	-.00604	.51346	-.16427	-.21947
	GRADIENT	.00075	-.00623	-.00279	-.00375	-.00334	-.00158	-.00116	.00094	-.00201

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 281/ 0 RN/L = 3.28 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.140	2.460	.14765	.02195	-.00832	.01219	.00809	-.00285	.51581	-.16617	-.21541
3.154	4.481	.14917	.00936	-.01396	.00462	.00134	-.00604	.51346	-.16427	-.21947
	GRADIENT	.00075	-.00623	-.00279	-.00375	-.00334	-.00158	-.00116	.00094	-.00201

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = 10.000  
 DY = .000 MACH = .600

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XU BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO 10FRB = 6.000 DX = 10.000  
 SCALE = .0125 .00982 .00362 .00381 .00413 .00410 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO.	282/ 0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.424	2.022	.01673	-.02080	-.00516	-.01109	-.01622	.47872	-.17400	-.23361
7.204	4.410	-.00672	-.01215	.00395	-.00123	-.00642	.49550	-.16145	-.21822
	GRADIENT	-.00982	.00362	.00381	.00413	.00410	.00703	.00526	.00645

RUN NO.	283/ 0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XYCP	CPC	CPB1 <td>CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td></td>	CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td>	CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td>	CPE3 <td>CPS1 <td>CPS2</td> </td>	CPS1 <td>CPS2</td>	CPS2
9.851	2.068	-.01071	-.02534	-.00910	-.01452	-.01993	.45875	-.17714	-.22395
9.970	4.488	-.02953	-.01605	.00093	-.01277	-.01762	.48640	-.17632	-.22728
	GRADIENT	-.00778	.00384	.00415	.00355	.00296	.01143	.00034	-.00138

RUN NO.	284/ 0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XYCP	CPC	CPB1 <td>CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td></td>	CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td>	CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td>	CPE3 <td>CPS1 <td>CPS2</td> </td>	CPS1 <td>CPS2</td>	CPS2
14.671	2.026	-.01348	-.02211	-.00616	-.01184	-.01643	.45397	-.17783	-.23487
14.337	4.481	-.03099	-.01428	.00077	-.00580	-.01045	.48521	-.17193	-.22147
	GRADIENT	-.00713	.00319	.00282	.00246	.00244	.01273	.00240	.00546

RUN NO.	285/ 0	RN/L = 3.29	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XYCP	CPC	CPB1 <td>CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td></td>	CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td>	CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td>	CPE3 <td>CPS1 <td>CPS2</td> </td>	CPS1 <td>CPS2</td>	CPS2
29.878	2.180	-.03385	-.02739	-.00928	-.01334	-.02036	.45991	-.17496	-.22793
29.674	4.515	-.05228	-.01107	.00205	-.00260	-.00971	.49235	-.17560	-.22097
	GRADIENT	-.00763	.00699	.00485	.00460	.00456	.01389	-.00027	.00298

RUN NO.	286/ 0	RN/L = 3.29	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XYCP	CPC	CPB1 <td>CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td></td>	CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td>	CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td>	CPE3 <td>CPS1 <td>CPS2</td> </td>	CPS1 <td>CPS2</td>	CPS2
44.780	2.093	-.05110	-.02484	-.01186	-.01402	-.01916	.46432	-.17852	-.23209
45.100	4.521	-.06221	-.01781	-.00027	-.00548	-.01397	.48432	-.18090	-.22639
	GRADIENT	-.00457	.00290	.00477	.00352	.00214	.00824	-.00098	.00235

RUN NO.	287/ 0	RN/L = 3.29	GRADIENT INTERVAL = -5.00/ 5.00	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
DZ	ALPHAC	XYCP	CPC	CPB1 <td>CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td></td>	CPB2 <td>CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td></td>	CPB3 <td>CPE3 <td>CPS1 <td>CPS2</td> </td></td>	CPE3 <td>CPS1 <td>CPS2</td> </td>	CPS1 <td>CPS2</td>	CPS2
50.200	2.061	-.03977	-.02579	-.00436	-.01060	-.02226	.46364	-.17627	-.23240
50.258	4.539	-.07546	-.01837	-.00277	-.01235	-.01794	.49071	-.17794	-.22858
	GRADIENT	-.01440	.00299	.00064	.00239	.00400	.01092	-.00067	.00154

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (ENH029) ( 21 00 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = 10.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

DZ 7.274  
 7.616

ALPHAC 2.465  
 4.442  
 GRADIENT

XZCP .12314  
 .11163  
 -.03582

XYCP -.02321  
 -.07077  
 -.02101

CPC -.00428  
 -.01270  
 -.00426

RN/L = 3.29

GRADIENT INTERVAL = -5.00/ 5.00

CPB1 .00852  
 -.00016  
 -.00439

CPB2 .00253  
 -.00179  
 -.00218

CPB3 -.00239  
 -.00370  
 -.00057

CPE3 .51832  
 .52196  
 .00184

CPS1 -.15706  
 -.17056  
 -.00663

CPS2 -.20935  
 -.21654  
 -.00465

DZ 10.037  
 10.105

ALPHAC 2.057  
 4.486  
 GRADIENT

XZCP .11726  
 .10479  
 -.00513

XYCP -.03352  
 -.09527  
 -.02542

CPC -.01204  
 -.01482  
 -.00115

RN/L = 3.28

GRADIENT INTERVAL = -5.00/ 5.00

CPB1 .00406  
 .00126  
 -.00115

CPB2 .00161  
 -.00228  
 -.00160

CPB3 -.00395  
 -.00774  
 -.00160

CPE3 .51619  
 .52168  
 .00226

CPS1 -.16456  
 -.16803  
 -.00143

CPS2 -.21721  
 -.21737  
 -.00007

DZ 15.073  
 14.864

ALPHAC 2.020  
 4.412  
 GRADIENT

XZCP .11089  
 .09969  
 -.00468

XYCP -.06465  
 -.13034  
 -.02746

CPC -.01991  
 -.01527  
 -.00194

RN/L = 3.28

GRADIENT INTERVAL = -5.00/ 5.00

CPB1 -.00158  
 -.00245  
 -.00037

CPB2 -.00455  
 -.00355  
 .00042

CPB3 -.01263  
 -.01036  
 .00095

CPE3 .50092  
 .51578  
 .00621

CPS1 -.17465  
 -.17129  
 .00140

CPS2 -.22398  
 -.22120  
 .00116

DZ 30.231  
 29.953

ALPHAC 2.128  
 4.510  
 GRADIENT

XZCP .10335  
 .08836  
 -.00630

XYCP -.08440  
 -.14181  
 -.02410

CPC -.02098  
 -.02382  
 -.00119

RN/L = 3.29

GRADIENT INTERVAL = -5.00/ 5.00

CPB1 -.00614  
 -.00364  
 .00105

CPB2 -.01019  
 -.00473  
 .00229

CPB3 -.02422  
 -.01482  
 .00395

CPE3 .49745  
 .51423  
 .00704

CPS1 -.18201  
 -.17817  
 .00161

CPS2 -.22895  
 -.22698  
 .00082

DZ 44.559  
 45.001

ALPHAC 2.087  
 4.446  
 GRADIENT

XZCP .10152  
 .08468  
 -.00718

XYCP -.08143  
 -.13930  
 -.02453

CPC -.02322  
 -.02098  
 .00095

RN/L = 3.28

GRADIENT INTERVAL = -5.00/ 5.00

CPB1 -.00518  
 .00135  
 .00277

CPB2 -.01084  
 -.03791  
 .00124

CPB3 -.01757  
 -.01172  
 .00248

CPE3 .50090  
 .51559  
 .00623

CPS1 -.17693  
 -.17452  
 .00102

CPS2 -.22538  
 -.22651  
 -.00048

DZ 50.108  
 50.709

ALPHAC 2.027  
 4.547  
 GRADIENT

XZCP .10064  
 .08291  
 -.00703

XYCP -.05923  
 -.11585  
 -.02247

CPC -.02290  
 -.02372  
 -.00033

RN/L = 3.28

GRADIENT INTERVAL = -5.00/ 5.00

CPB1 -.00802  
 -.00811  
 -.00004

CPB2 -.01262  
 -.00894  
 .00146

CPB3 -.01857  
 -.01587  
 .00067

CPE3 .49083  
 .51115  
 .00806

CPS1 -.17953  
 -.18084  
 -.00052

CPS2 -.22958  
 -.22354  
 .00240



TABULATED SOURCE DATA - CA238  
ARC 14-120(CA238) 747/1 AT1 0351 (ORBITTER DATA)

(ENH030) ( 21 OCT 75 )

DATE 22 MAR 76

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO IORB = 8.000 DX = 20.000  
 SCALE = .0125 .02876 .00244 .00229 .00238 .00165 DY = .000 MACH = .600

PARAMETRIC DATA

Run No.	301/0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	302/0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	303/0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	304/0	RN/L = 3.28	GRADIENT INTERVAL = -5.00/ 5.00	305/0	RN/L = 3.29	GRADIENT INTERVAL = -5.00/ 5.00	306/0	RN/L = 3.30	GRADIENT INTERVAL = -5.00/ 5.00			
DZ	7.146	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	7.541	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
		.10962	.00071	-.01570	.00050	.00133	-.00444	.49915	-.16727	-.22026		.09929	-.05336	-.01111	-.00480	-.00315	-.00754	.50432	-.16884	-.21410	
		-.00549	-.02876	.00244	.00229	-.00238	-.00165	.00275	-.00084	.00328		-.00549	-.02876	.00244	.00229	-.00238	-.00165	.00275	-.00084	.00328	
DZ	10.020	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	10.077	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
		.10567	-.00953	-.01844	-.00276	-.00709	-.01331	.48539	-.17332	-.22279		.09514	-.07767	-.01511	.00352	.00105	-.00772	.50623	-.17291	-.21839	
		-.00426	-.02754	.00134	.00254	.00329	.00842	.00842	.00016	.00178		-.00426	-.02754	.00134	.00254	.00329	.00842	.00842	.00016	.00178	
DZ	14.887	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	14.608	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
		.10061	-.02578	-.02040	-.00767	-.01201	.99979	.48550	-.18046	-.22840		.09238	-.07888	-.01719	.00060	-.00268	-.00761	.50540	-.17542	-.21785	
		-.00363	-.02341	.00142	.00365	.00411	.44411	.00877	.00222	.00465		-.00363	-.02341	.00142	.00365	.00411	.44411	.00877	.00222	.00465	
DZ	30.123	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	29.781	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
		.09989	-.05480	-.02130	-.00536	-.00941	-.01725	.48735	-.17779	-.22968		.08430	-.12193	-.02340	-.00992	-.01322	-.02230	.50240	-.18317	-.23130	
		-.00596	-.02567	-.00080	-.00175	-.00146	-.00193	.00576	-.00206	-.00062		-.00596	-.02567	-.00080	-.00175	-.00146	-.00193	.00576	-.00206	-.00062	
DZ	44.889	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	44.724	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
		.09841	-.09409	-.02599	-.00605	-.01521	-.02033	.48584	-.17747	-.23110		.08448	-.13007	-.03670	-.01590	-.02022	-.02292	.48384	-.18608	-.23227	
		-.00597	-.01942	-.00459	-.00422	-.00215	-.00111	-.00086	-.00369	-.00050		-.00597	-.01942	-.00459	-.00422	-.00215	-.00111	-.00086	-.00369	-.00050	
DZ	50.425	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	50.408	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	
		.09893	-.06433	-.02127	-.01046	-.01343	-.01965	.49112	-.18009	-.22925		.08145	-.13563	-.01493	-.00456	-.01057	-.00432	.50632	-.17431	-.22234	
		-.00744	-.03055	.00270	.00495	.00378	.00387	.00647	.00246	.00294		-.00744	-.03055	.00270	.00495	.00378	.00387	.00647	.00246	.00294	

ORIGINAL PAGE IS  
OF POOR QUALITY

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(ENH031) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 311/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.139	2.440	.10679	.02051	-.02777	-.00881	-.01829	-.02343	.49203	-.18405	-.23201
7.034	4.374	.11226	-.00839	-.01018	.00212	-.00253	-.00881	.51594	-.17025	-.21942
	GRADIENT	.00283	-.01494	.00909	.00565	.00815	.00756	.01236	.00714	.00651

RUN NO. 312/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
9.707	1.989	.10124	.01033	-.01363	.00170	.00061	-.00651	.51664	-.17022	-.22031
9.890	4.549	.10873	-.01352	-.01677	.00241	-.00307	-.01102	.52437	-.17487	-.22254
	GRADIENT	.00293	-.00932	-.00123	.00028	-.00144	-.00176	.00302	-.00182	-.00087

RUN NO. 313/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.857	1.961	.09879	.00899	-.01967	-.00886	1.13782	-.02156	.50489	-.18209	-.23317
14.654	4.524	.10571	-.00215	-.01605	-.00073	-.00291	-.01304	.52923	-.17309	-.22316
	GRADIENT	.00270	-.00434	.00141	.00317	-.44508	.00333	.00950	.00351	.00391

RUN NO. 314/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.665	1.982	.10062	-.02280	-.01057	.00229	.00010	-.01002	.53188	-.16931	-.22186
29.602	4.262	.10556	-.07327	-.01938	-.00216	-.00325	-.01282	.54395	-.17381	-.22109
	GRADIENT	.00217	-.02213	-.00386	-.00195	-.00147	-.00123	.00529	-.00197	.00034

RUN NO. 315/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.676	1.970	.10089	-.03558	-.02007	-.00305	-.01250	-.02007	.54531	-.17647	-.23103
44.732	4.370	.10538	-.06215	-.01657	-.00016	-.00426	-.00727	.57868	-.17195	-.22064
	GRADIENT	.00187	-.01107	.00146	.00120	.00343	.00533	.01391	.00188	.00433

RUN NO. 316/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.207	2.003	.10073	-.03911	-.01761	-.00174	-.00147	-.00831	.66614	-.16721	-.22355
50.098	4.371	.10544	-.08155	-.01655	-.00313	-.00234	-.00971	.69475	-.16984	-.22395
	GRADIENT	.00199	-.01792	.00045	.00206	-.00037	-.00059	.01208	-.00111	-.00017

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ENH032) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 321/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.217	2.384	.15884	-.27113	-.02064	.00047	-.00255	-.01022	.69567	-.16894	-.22624
3.310	GRADIENT	.16349	-.39356	-.01848	-.00401	-.00592	-.01684	.68434	-.16947	-.23391
		.00240	-.06309	.00111	-.00231	-.00174	-.00341	-.00584	-.00027	-.00395

RUN NO. 322/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.247	1.999	.13827	-.21501	-.01572	.00341	-.00233	-.00725	.64737	-.16714	-.22181
7.563	GRADIENT	.14337	-.37722	-.02549	-.00935	-.01564	-.01920	.65715	-.17160	-.22550
		.00214	-.06813	-.00410	-.00536	-.00559	-.00502	.00411	-.00187	-.00155

RUN NO. 323/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.032	1.980	.13536	-.17505	-.01769	.00387	-.00186	-.00814	.64763	-.16642	-.22564
9.896	GRADIENT	.14149	-.43025	-.03540	-.01759	-.02164	-.02812	.63642	-.18386	-.24270
		.00257	-.10692	-.00742	-.00899	-.00628	-.00837	-.00470	-.00731	-.00715

RUN NO. 324/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
15.217	2.049	.13053	-.16867	-.01543	.00396	-.00068	-.00833	.65000	-.16840	-.22522
15.047	GRADIENT	.13569	-.37539	-.02378	-.00495	-.00905	-.01696	.65698	-.17085	-.22869
		.00235	-.09397	-.00360	-.00405	-.00380	-.00392	.00317	-.00111	-.00158

RUN NO. 325/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.998	1.976	.11964	-.09348	-.02517	-.01247	-.01599	-.02247	.62539	-.18342	-.23635
29.890	GRADIENT	.12430	-.20132	-.02306	-.00531	-.00750	-.01487	.66110	-.17649	-.23000
		.00201	-.04637	.00091	.00308	.00365	.00327	.01536	.00298	.00273

RUN NO. 326/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.648	1.958	.11307	-.10778	-.01299	.00203	-.00206	-.00725	.64727	-.16699	-.22078
44.989	GRADIENT	.11617	-.18028	-.02275	-.00395	-.00694	-.01539	.65317	-.17749	-.22735
		.00131	-.03063	-.00412	-.00253	-.00206	-.00344	.00249	-.00444	-.00277

ARC 14-120(CA23B) 747/1 ATI 03S1 (ORBITTER DATA)

(ENH032) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 327/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
49.978	1.953	.11155	-.09072	-.02791	-.00907	-.01283	-.02172	.61912	-.17594	-.23165
50.163	4.264	.11414	-.16074	-.03013	-.01320	-.01696	-.02744	.62663	-.18249	-.23381
	GRADIENT	.00113	-.03051	-.00097	-.00180	-.00180	-.00249	.00327	-.00286	-.00094

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 ATI 03S1 (ORBITTER DATA)

(ENH033) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 331/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.500	2.446	.12901	-.31596	-.01358	.00463	-.00108	-.00842	.71335	-.16636	-.21720
7.613	4.292	.11918	-.44126	-.01671	.00289	-.00419	-.01290	.71598	-.16701	-.22391
	GRADIENT	-.00533	-.06790	-.00170	-.00094	-.00168	-.00243	.00143	-.00035	-.00364

PARAMETRIC DATA

RUN NO. 332/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.263	1.907	.12541	-.24002	-.01297	.00443	-.00210	-.00400	.70765	-.16199	-.21393
9.859	4.322	.11570	-.39906	-.01931	-.00518	-.00953	-.00871	.71427	-.17158	-.22269
	GRADIENT	-.00402	-.06585	-.00262	-.00398	-.00308	-.00195	.00274	-.00397	-.00363

PARAMETRIC DATA

RUN NO. 333/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
15.012	1.933	.12165	-.19725	-.02331	-.00772	-.00907	-.01552	.68596	-.16872	-.22301
14.957	4.337	.10978	-.35072	-.03217	-.01496	-.02007	-.02840	.69286	-.18062	-.23655
	GRADIENT	-.00495	-.06410	-.00370	-.00302	-.00459	-.00538	.00288	-.00497	-.00566

PARAMETRIC DATA

RUN NO. 334/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.834	1.958	.11430	-.12596	-.00963	.00556	.00040	-.00828	.70209	-.16783	-.21395
29.957	4.362	.09725	-.28700	-.02337	-.00244	-.00815	-.01087	.70889	-.17260	-.22669
	GRADIENT	-.00709	-.06698	-.00571	-.00333	-.00356	-.00108	.00283	-.00198	-.00530

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 8.000 DX = .000  
 SCALE = .0125 DY = 10.000 MACH = .600

RUN NO. 335/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.819	1.871	.10980	-.15746	-.02786	-.00866	-.01353	-.01623	.68229	-.17849	-.22230
45.000	4.278	.09213	-.20815	-.02027	-.00384	-.00439	-.01233	.70769	-.17502	-.22048
	GRADIENT	-.00734	-.02106	.00315	.00200	.00380	.00162	.01056	.00144	.00076

RUN NO. 336/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.002	1.913	.10835	-.12714	-.00969	.00314	.00150	-.00805	.70147	-.16496	-.21627
50.443	4.260	.09014	-.17695	-.02295	-.00518	-.00846	-.01311	.70455	-.17544	-.22245
	GRADIENT	-.00776	-.02122	-.00565	-.00354	-.00424	-.00215	.00131	-.00446	-.00263

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA) (ENH034) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 6.000 DX = .000  
 SCALE = .0125 DY = 10.000 MACH = .600

RUN NO. 341/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
1.515	-.031	.19185	-.05120	-.00048	.01212	.01185	.00007	.02336	-.16405	-.20076
1.466	2.266	.18497	-.05838	-.00745	-.01003	.00593	-.00281	.03107	-.16426	-.20142
1.364	4.253	.18342	-.07181	-.02443	-.00771	-.00960	-.02119	.02707	-.18214	-.21907
	GRADIENT	.00039	-.00476	-.00552	-.00453	-.00494	-.00486	.00093	-.00411	-.00417

RUN NO. 342/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.218	-.127	.16942	-.05713	.00100	.01546	.01300	.00482	.05282	-.15198	-.19534
2.877	2.324	.17815	-.03246	-.00619	.00746	.00719	.00364	.04675	-.16173	-.19938
3.380	4.353	.17626	-.05313	-.01491	.00504	.00176	-.00698	.04602	-.17365	-.20862
	GRADIENT	.00160	-.00095	-.00353	-.00236	-.00250	-.00256	-.00155	-.00481	-.00292

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITTER DATA)

(ENH034) (21 OCT 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 343/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.400	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	7.390	-.285	.14533	-.05239	-.02025	-.00242	-.00512	-.00647	.04943	-.17338	-.20687
	7.046	2.312	.15567	-.06065	-.01224	.00116	.00034	-.00677	.05831	-.16947	-.21048
		4.212	.16003	-.07278	-.01425	.00185	.00021	-.00688	.04985	-.17462	-.21198
		GRADIENT	.00331	-.00446	.00144	.00097	.00124	-.00009	.00029	-.00017	-.00115

RUN NO. 344/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.858	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	9.870	-.243	.13489	-.04912	-.01005	.00314	-.00062	-.00682	.05592	-.17079	-.21117
	9.840	2.334	.14836	-.06056	-.00966	.00564	-.00228	-.00748	.05756	-.16925	-.20887
		4.253	.15145	-.08566	-.01778	-.00085	-.00457	-.01150	.04857	-.18052	-.21547
		GRADIENT	.00377	-.00792	-.00162	-.00079	-.00089	-.00100	-.00151	-.00201	-.00085

RUN NO. 345/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.745	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	14.663	-.254	.12039	-.06512	-.01305	-.00038	-.00092	-.00604	.05946	-.17073	-.21062
	14.715	2.332	.13633	-.06986	-.01119	.00222	-.00106	-.00790	.05584	-.17725	-.21254
		4.248	.14095	-.07251	-.01493	.00173	-.00482	-.01028	.05416	-.17849	-.21699
		GRADIENT	.00466	-.00165	-.00035	.00050	-.00082	-.00093	-.00119	-.00177	-.00138

RUN NO. 346/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.743	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	29.911	-.267	.10561	-.06330	-.00605	.00738	.00601	-.00386	.06960	-.16641	-.20616
	29.627	2.360	.12620	-.05607	-.01089	.00558	-.00025	-.00734	.06362	-.16866	-.21124
		4.269	.12623	-.12378	-.01634	.00200	-.00375	-.00857	.06221	-.17809	-.21996
		GRADIENT	.00475	-.01236	-.00224	-.00113	-.00217	-.00108	-.00167	-.00247	-.00298

RUN NO. 347/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.607	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	44.784	-.235	.10088	-.10242	-.00941	.01002	.00400	-.00065	.06555	-.16506	-.20199
	44.631	2.345	.11885	-.08751	-.01107	.00452	-.00233	-.00669	.06741	-.16775	-.21314
		4.291	.11827	-.12987	-.02478	-.00941	-.01130	-.01885	.05018	-.18790	-.23077
		GRADIENT	.00401	-.00544	-.00325	-.00418	-.00323	-.00393	-.00318	-.00483	-.00625

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO = .600  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 348/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
49.960	-.239	.09978	-.08283	-.00607	.00511	.00783	-.00171	.06155	-.16504	-.20131
50.084	2.361	.11706	-.07557	-.00796	.00457	.00648	-.00115	.06642	-.17169	-.20575
50.051	4.269	.11689	-.10339	-.01990	.00111	-.00325	-.00980	.06304	-.17349	-.21932
GRADIENT		.00396	-.00413	-.00293	-.00085	-.00235	-.00168	.00042	-.00191	-.00386

RUN NO. 349/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
61.655	-.279	.09838	-.07170	-.00764	.00846	.03491	-.00218	.06085	-.15689	-.20300
61.629	2.289	.11400	-.08961	-.00993	.00694	.00231	-.00041	.06138	-.16754	-.20565
61.640	4.275	.11172	-.10658	-.01696	.00051	-.00304	-.00577	.05836	-.17877	-.21968
GRADIENT		.00308	-.00763	-.00199	-.00169	-.00171	-.00072	-.00051	-.00477	-.00360

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO = .600  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 351/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.392	.007	.23936	-.01376	-.02233	-.00743	-.00607	-.01447	-.21333	-.17893	-.22363
3.273	2.270	.19574	-.01746	-.03863	-.02368	-.02848	-.03142	-.22016	-.19613	-.24632
3.233	4.244	.18192	-.02353	-.04198	-.02517	-.03211	-.03798	-.21974	-.19812	-.24963
GRADIENT		-.01369	-.00229	-.00470	-.00426	-.03624	-.00560	-.00155	-.00460	-.00623

RUN NO. 352/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.633	-.212	.18137	-.00348	-.03012	-.01620	-.01513	-.02289	-.22349	-.18438	-.23580
7.582	2.387	.15964	-.00204	-.02853	-.01149	-.01690	-.02258	-.21382	-.18542	-.23601
7.362	4.282	.15714	-.03925	-.04009	-.01871	-.02061	-.02954	-.21976	-.19595	-.24195
GRADIENT		-.00557	-.00745	-.00205	-.00042	-.00119	-.00138	.00100	-.00244	-.00129

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(ENH035) (21)

REFERENCE DATA

SREF = 2690.0000 SO. FT.  
 LREF = 474.8100 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0125

XMPP = 1109.0000 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 353/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.664	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	9.916	- .213	.16352	.00535	-.02364	-.00634	-.00418	-.01283	-.21038	-.17335	-.22119
	9.803	2.313	.14473	-.01447	-.03015	-.01477	-.01968	-.02422	-.21880	-.18452	-.23121
		4.259	.14843	-.01354	-.03534	-.01348	-.01968	-.02643	-.21597	-.19653	-.24432
		GRADIENT	-.00357	-.00384	-.00262	-.00168	-.00358	-.00311	-.00135	-.00515	-.00511

RUN NO. 354/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	15.113	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	14.808	-.270	.13553	-.00320	-.02787	-.01694	-.01534	-.02173	-.22277	-.18917	-.23397
	14.693	2.324	.13056	-.03946	-.03150	-.01260	-.01638	-.02259	-.21939	-.19294	-.23829
		4.304	.13713	-.01397	-.04681	-.03055	-.03401	-.03508	-.22732	-.20039	-.25371
		GRADIENT	.00023	-.00294	-.00400	-.00274	-.00390	-.00279	-.00088	-.00240	-.00418

RUN NO. 355/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.891	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	29.979	-.272	.11088	-.02424	-.02823	-.01734	-.01575	-.02452	-.22774	-.18019	-.23065
	29.891	2.346	.11185	-.02067	-.03234	-.01240	-.01779	-.02426	-.22095	-.18916	-.23739
		4.294	.12485	-.06359	-.03550	-.01934	-.02580	-.03227	2.21721	-.19287	-.24838
		GRADIENT	.00291	-.00806	-.00159	-.00031	-.00212	-.00160	.50584	-.00281	-.00381

RUN NO. 356/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.449	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
	44.799	-.271	.10183	-.06093	-.02470	-.01160	-.01587	-.02363	-.22546	-.18349	-.23348
	44.865	2.322	.10410	-.08030	-.02942	-.01190	-.01810	-.02457	-.22528	-.19376	-.24279
		4.260	.11545	-.10573	-.03239	-.01406	-.01622	-.01891	-.21995	-.19112	-.23801
		GRADIENT	.00289	-.00975	-.00170	-.00052	-.00012	.00096	.00115	-.00181	-.00114

PARAMETRIC DATA



ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ENH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = 10.000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO GRADIENT INTERVAL = -5.00/ 5.00  
 SCALE = .0125 XYCP = .06318 CPC = .04248 CPB1 = .02300 CPB2 = -.02620 CPB3 = -.03368 CPE3 = -.20178 CPS1 = -.19457 CPS2 = -.23406  
 .05584 -.03415 -.01661 -.02335 -.03037 -.02027 -.19499 -.23142  
 .09177 .00440 .00338 .00151 .00175 -.00026 -.00022 .00140

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 361/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	1.654	XZCP	.17695	XYCP	-.06318	CPC	.04248	CPB1	.02300	CPB2	-.02620	CPB3	-.03368	CPE3	-.20178	CPS1	-.19457	CPS2	-.23406
	2.469	ALPHAC	2.302	YXCP	-.05584	-.03415	-.01661	-.02335	-.03037	-.02027	-.19499	-.23142							
		GRADIENT	4.194	.09177	.00440	.00338	.00151	.00175	-.00026	-.00022	.00140								

RUN NO. 362/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	2.877	XZCP	.16907	XYCP	-.06262	-.03937	-.02496	-.02255	-.02496	-.020831	-.19069	-.23580
	3.365	ALPHAC	2.012	YXCP	-.04781	-.03756	-.02133	-.03351	-.20581	-.00104	-.00089	.00111
		GRADIENT	4.405	.00519	.00075	.00051	.00072	-.00023	-.00104			

RUN NO. 363/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.393	XZCP	.14649	XYCP	-.02173	-.03739	-.02218	-.03072	-.20790	-.18869	-.24046
	7.226	ALPHAC	2.013	YXCP	-.05107	-.03711	-.02411	-.03088	-.20906	-.19534	-.23587
		GRADIENT	4.376	-.01241	.00012	.00021	.00166	-.00007	-.00049	-.00324	.00194

RUN NO. 364/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.858	XZCP	.13756	XYCP	-.00731	-.03986	-.02298	-.03129	-.21589	-.19981	-.24562
	10.104	ALPHAC	2.049	YXCP	-.06653	-.03416	-.01953	-.02360	-.21076	-.19857	-.23730
		GRADIENT	4.457	-.02463	.00237	.00143	.00249	.00213	.00052	.00052	.00346

RUN NO. 365/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.553	XZCP	.12892	XYCP	-.02256	-.04065	-.01923	-.02110	-.21363	-.20426	-.24095
	14.643	ALPHAC	2.097	YXCP	-.05033	-.05109	-.03475	-.03529	-.21822	-.20563	-.24955
		GRADIENT	4.474	-.01589	-.00439	-.00653	-.00597	-.00439	-.00193	-.00058	-.00362

RUN NO. 366/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.819	XZCP	.11685	XYCF	-.04814	-.04159	-.02764	-.02845	-.21614	-.19951	-.24348
	29.992	ALPHAC	2.159	YXCF	-.07156	-.03785	-.01956	-.03079	-.20545	-.19621	-.24347
		GRADIENT	4.411	-.01040	.00165	.00355	.00186	.00408	.00475	.00147	.00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ENH036) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 367/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
45.057	2.052	.10875	-.05044	-.04049	-.02760	-.03243	-.03619	-.18874	-.20002	-.24352
44.937	4.371	.11163	-.07170	-.03370	-.01367	-.01719	-.02693	-.16091	-.19149	-.23804
	GRADIENT	.00124	-.00917	.00293	.00600	.00657	.00399	.01200	.00368	.00236

RUN NO. 368/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.129	2.015	.10592	-.03370	-.04266	-.02360	-.02870	-.03568	-.15248	-.19571	-.24055
50.420	4.439	.10784	-.10445	-.03373	-.01739	-.02447	-.02910	-.13937	-.19682	-.24229
	GRADIENT	.00079	-.02918	.00368	.00256	.00174	.00271	.00541	-.00046	-.00072

RUN NO. 369/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
62.057	2.140	.10533	-.03261	-.04483	-.02496	-.02953	-.03490	-.13583	-.19568	-.24749
61.853	4.416	.10468	-.07242	-.03452	-.01900	-.02227	-.02554	-.12359	-.19576	-.24315
	GRADIENT	-.00029	-.01748	.00453	.00262	.00319	.00411	.00538	-.00003	.00191

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ENH037) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 371/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
1.955	.521	.17910	-.02908	-.03464	-.01927	-.02112	-.02669	-.05689	-.18380	-.22592
1.879	2.297	.18212	-.06215	-.03645	-.02029	-.02599	-.03380	-.05791	-.19040	-.23518
1.932	4.335	.17997	-.06523	-.02968	-.01391	-.01979	-.02701	-.04651	-.18868	-.23224
	GRADIENT	.00020	-.00928	.00135	.00145	.00041	.00000	.00279	-.00123	-.00158

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITTER DATA) (ENH037) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .00204 -.01019 -.00005 .00071 .00055 .00030 .00239 .00239 .00027 .00295  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 372/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYZCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.611	-.073	.16521	.01345	-.03239	-.01703	-.01968	-.02762	-.05490	-.18677	-.22172
3.412	2.415	.17561	-.03342	-.02902	-.00816	-.01618	-.02421	-.04373	-.18199	-.23398
3.341	4.372	.17384	-.02790	-.03292	-.01445	-.01740	-.02650	-.04469	-.18841	-.23524
	GRADIENT	.00204	-.01019	-.00005	.00071	.00055	.00030	.00239	-.00027	-.00295

RUN NO. 373/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYZCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.238	-.184	.14046	-.01276	-.03460	-.01870	-.01790	-.02586	-.05873	-.18808	-.22069
7.611	2.515	.15435	-.00908	-.03095	-.01460	-.01648	-.02452	-.04490	-.18700	-.22855
7.497	4.363	.15516	-.06922	-.03350	-.01632	-.02196	-.03323	-.04880	-.19346	-.23641
	GRADIENT	.00337	-.01141	.00032	.00060	-.00079	-.00147	.00240	-.00107	-.00342

RUN NO. 374/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYZCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.003	-.096	.12974	-.02340	-.02743	-.00726	-.00915	-.01829	-.04759	-.17584	-.22289
9.942	2.401	.14696	-.03078	-.04218	-.02441	-.02388	-.03131	-.05623	-.19413	-.23709
10.030	4.474	.14746	-.06148	-.04026	-.01739	-.02365	-.02708	-.04725	-.19275	-.23794
	GRADIENT	.00398	-.00815	-.00291	-.00237	-.00331	-.00203	-.00004	-.00382	-.00337

RUN NO. 375/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYZCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.990	.036	.11763	-.01408	-.03375	-.02128	-.02260	-.03056	-.06427	-.19032	-.23597
14.729	2.374	.13520	-.02907	-.03976	-.02200	-.02650	-.03578	-.05964	-.19510	-.23566
14.795	4.458	.13796	-.10096	-.03379	-.01578	-.01793	-.02653	-.04938	-.19129	-.23510
	GRADIENT	.00466	-.01938	-.00006	.00121	.00100	.00085	.00334	-.00025	.00020

RUN NO. 376/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYZCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.795	-.037	.10216	-.02822	-.03832	-.02453	-.02612	-.03381	-.06537	-.19347	-.23564
29.929	2.359	.12177	-.03354	-.04601	-.02634	-.02820	-.03112	-.05770	-.19060	-.23498
30.138	4.506	.12310	-.08135	-.03737	-.02153	-.02019	-.02771	-.05321	-.19627	-.23412
	GRADIENT	.00468	-.01152	.00014	.00063	.00126	.00134	.00269	-.00058	.00033

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(ENH037) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 377/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
45.027	-.096	.09493	-.05207	-.03737	-.02222	-.02487	-.03259	-.06769	-.18897	-.22700
44.952	2.497	.11698	-.04751	-.02611	-.00950	-.00575	-.01566	-.05235	-.18330	-.22320
44.914	4.260	.11431	-.09743	-.03458	-.01603	-.01899	-.03055	-.05502	-.19162	-.23545
	GRADIENT	.00475	-.00951	.00092	.00168	.00180	.00092	.00313	-.00040	-.00168

RUN NO. 378/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
50.481	.036	.09390	-.04897	-.03682	-.02032	-.02404	-.02910	-.07088	-.18584	-.23348
50.592	2.316	.11257	-.05467	-.03314	-.01697	-.02047	-.02883	-.05875	-.18977	-.23533
50.369	4.524	.11160	-.13541	-.03587	-.01888	-.02185	-.02778	-.06014	-.19901	-.24323
	GRADIENT	.00397	-.01917	.00022	.00033	.00050	.00229	.00241	-.00293	-.00217

RUN NO. 379/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
61.632	-.013	.09106	-.08061	-.04170	-.02305	-.02411	-.03237	-.07501	-.19413	-.23054
61.965	2.379	.10863	-.07173	-.02970	-.01271	-.02026	-.02511	-.05639	-.18313	-.22528
61.651	4.408	.10863	-.11748	-.04635	-.02799	-.03385	-.04023	-.06844	-.19455	-.24697
	GRADIENT	.00407	-.00798	-.00087	-.00096	-.00209	-.00163	.00167	.00004	-.00353

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(ENH038) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 381/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
1.603	.046	-.00363	.17448	-.04339	-.03078	-.03373	-.04446	-.05733	-.20054	-.25149
1.569	2.293	.02522	.14641	-.04939	-.02951	-.03461	-.04455	-.05046	-.20386	-.25436
2.306	4.387	.04051	.15066	-.05313	-.03325	-.03943	-.05151	-.01821	-.20597	-.25674
	GRADIENT	.01020	-.00557	-.00225	-.00055	-.00130	-.00161	.00894	-.00125	-.00121

ARC 14-120(CA23B) 747/1 AT: 0351 (ORBITER DATA) (ENH038) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .000003 MACH = .600

PARAMETRIC DATA

RUN NO. 382/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.468	.019	-.00569	.21179	-.05166	-.03762	-.03947	-.04742	-.02516	-.20141	-.25336
3.699	2.422	.01873	.21371	-.04925	-.03499	-.03472	-.04817	-.01858	-.20365	-.24858
3.469	4.425	.03512	.20435	-.05558	-.03297	-.03889	-.04750	-.02006	-.20706	-.25664
	GRADIENT	.00929	-.00161	-.00083	.00105	.00019	-.00003	.00121	-.00127	-.00070

RUN NO. 383/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.736	-.027	-.02534	.26328	-.05963	-.03809	-.04660	-.05511	-.03756	-.20272	-.24820
6.902	2.422	.00520	.27408	-.05061	-.02938	-.03798	-.04765	-.02831	-.20189	-.24864
7.339	4.419	.02182	.25770	-.06405	-.04404	-.04810	-.05945	-.04107	-.21682	-.26577
	GRADIENT	.01068	.00127	-.00082	-.00116	-.00019	-.00083	-.00062	-.00304	-.00381

RUN NO. 384/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
10.309	.047	-.03302	.28360	-.05936	-.04152	-.04738	-.05803	-.05697	-.21354	-.25828
9.703	2.409	-.00174	.29107	-.05542	-.02923	-.04165	-.04651	-.04219	-.21120	-.25871
10.031	4.489	.01660	.28229	-.05763	-.04248	-.04952	-.05736	-.04708	-.21185	-.25812
	GRADIENT	.01121	-.00022	.00042	-.00009	-.00042	.00026	.00232	.00039	.00003

RUN NO. 385/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
15.037	-.141	-.04571	.26560	-.06331	-.04379	-.04619	-.05716	-.05930	-.21309	-.26498
14.866	2.495	-.00616	.29899	-.05432	-.03485	1.52493	-.04729	-.04269	-.20525	-.25719
14.876	4.418	.01206	.30657	-.05985	-.04092	-.04335	-.05552	-.04173	-.20862	-.26110
	GRADIENT	.01281	.00321	.00092	.00079	.03618	.00056	.00400	.00110	.00098

RUN NO. 386/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
30.004	-.165	-.05007	.26354	-.05829	-.04175	-.04441	-.05802	-.06336	-.21035	-.25650
29.816	2.497	-.01123	.29600	-.05217	-.03383	-.03760	-.04543	-.04839	-.20671	-.25202
30.280	4.402	.00602	.30282	-.06578	-.04473	-.05496	-.06419	-.05459	-.21399	-.26757
	GRADIENT	.01243	.00746	-.00139	-.00042	-.00198	-.00096	.00216	-.00066	-.00216

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(ENH038) ( 21 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 387/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	44.879	ALPHAC	.070	XZCP	.05005	XYCP	.27151	CPC	.05732	CPB1	-.04184	CPB2	-.04290	CPB3	-.05038	CPE3	-.05786	CPS1	-.20340	CPS2	-.25521
	44.946		2.481		-.01414		.29936		-.05328		-.03383		-.04166		-.04842		-.04626		-.20730		-.26134
	44.926		4.448		.00295		.27974		-.06179		-.03960		-.04718		-.05394		-.05340		-.21682		-.26661
		GRADIENT			.01221		.00224		-.00092		.00061		-.00092		-.00075		.00116		-.00301		-.00260

RUN NO. 388/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	49.971	ALPHAC	-.037	XZCP	-.05368	XYCP	.23012	CPC	-.05759	CPB1	-.04177	CPB2	-.05116	CPB3	-.05786	CPE3	-.06350	CPS1	-.21426	CPS2	-.26470
	50.192		2.513		-.01436		.28641		-.05417		-.03732		-.04058		-.04738		-.05091		-.21502		-.26501
	50.609		4.284		.00119		.27640		-.05649		-.03336		-.03990		-.05350		-.04915		-.20996		-.26574
		GRADIENT			.01289		.01151		.00033		.00193		.00271		.00123		.00343		.00091		-.00023

RUN NO. 389/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	61.515	ALPHAC	-.115	XZCP	-.06116	XYCP	.25528	CPC	-.06214	CPB1	-.04738	CPB2	-.04845	CPB3	-.05865	CPE3	-.06536	CPS1	-.21243	CPS2	-.26939
	60.520		2.529		-.01802		.30859		-.05639		-.03791		-.04199		-.05204		-.05313		-.20885		-.26593
		GRADIENT			.01632		.02016		.00217		.00358		.00244		.00250		.00462		.00135		-.00247

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(ENH039) ( 08 OCT 75 )

RUN NO. 391/ 0 RN/L = 3.36 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.148	ALPHAC	2.388	XZCP	.07128	XYCP	.23558	CPC	-.07837	CPB1	-.25026	CPB2	-.28052	CPB3	-.26713	CPE3	-.02937	CPS1	-.20742	CPS2	-.26070
	3.390		4.263		.07717		.19623		-.08282		-.25646		-.28558		-.26929		-.03474		-.20811		-.25780
		GRADIENT			.00314		-.02099		-.00238		-.00331		-.00270		-.00115		-.00286		-.00037		-.00155

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (ENH039) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = 10.000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO 10RB = 6.000 DX = .000  
 SCALE = .0125 .03756 .00351 .00488 .00290 .00277 .00021 MACH = .600

PARAMETRIC DATA

Run No.	392/0	C	RN/L	=	3.34	Gradient Interval	=	-5.00/	5.00	CPS1	CPS2
DZ	7.312	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPB1	CPB2
7.376	2.139	2.139	.06124	.24728	-.09449	-.26840	-.29658	-.28058	-.04843	-.21837	-.26602
	4.461	4.461	.06940	.16008	-.08651	-.25429	-.28725	-.27385	-.03773	-.21194	-.26554
	GRADIENT	GRADIENT	.00351	-.03756	.00344	.00608	.00488	.00290	.00461	.00277	.00021

Run No.	393/0	RN/L	=	3.34	Gradient Interval	=	-5.00/	5.00	CPS1	CPS2	
DZ	9.885	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPB1	CPB2
10.083	2.001	2.001	.05786	.25164	-.07714	-.25141	-.28112	-.26961	-.03511	-.20456	-.25703
	4.424	4.424	.06602	.18650	-.09391	-.26407	-.29234	-.27913	-.04530	-.21994	-.26882
	GRADIENT	GRADIENT	.00337	-.02689	-.00692	-.00522	-.00463	-.00393	-.00420	-.00635	-.00487

Run No.	394/0	RN/L	=	3.34	Gradient Interval	=	-5.00/	5.00	CPS1	CPS2	
DZ	15.083	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPB1	CPB2
14.830	2.141	2.141	.05459	.26252	-.07548	-.25257	-.27208	-.27208	-.03968	-.20930	-.26086
	4.433	4.433	.06296	.18829	-.10068	-.26700	-.29705	-.28149	-.05139	-.22983	-.27280
	GRADIENT	GRADIENT	.00355	-.03239	-.01100	-.00629	-.00600	-.00411	-.00511	-.00896	-.00521

Run No.	395/0	RN/L	=	3.33	Gradient Interval	=	-5.00/	5.00	CPS1	CPS2	
DZ	29.781	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPB1	CPB2
29.790	2.045	2.045	.04738	.23670	-.08127	-.25911	-.29201	-.27596	-.04758	-.20777	-.26045
	4.494	4.494	.05575	.16946	-.08432	-.25882	-.29083	-.27749	-.04536	-.20919	-.25882
	GRADIENT	GRADIENT	.00341	-.03970	-.00124	.00012	.00048	-.00062	.00090	-.00058	.00067

Run No.	396/0	RN/L	=	3.33	Gradient Interval	=	-5.00/	5.00	CPS1	CPS2	
DZ	44.565	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPB1	CPB2
44.873	2.160	2.160	.04381	.25610	-.08794	-.26853	-.29894	-.28519	-.05991	-.21882	-.27778
	4.367	4.367	.04951	.16636	-.09106	-.26638	-.29670	-.28536	-.05442	-.21418	-.26796
	GRADIENT	GRADIENT	.00258	-.04065	-.00142	.00097	.00102	-.00008	.00249	.00210	.00445

Run No.	397/0	RN/L	=	3.33	Gradient Interval	=	-5.00/	5.00	CPS1	CPS2	
DZ	50.286	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPB1	CPB2
50.569	2.123	2.123	.04207	.23250	-.08976	-.26754	-.29999	-.28231	-.05732	-.21004	-.26701
	4.396	4.396	.04730	.16802	-.09612	-.27161	-.30222	-.28718	-.06261	-.21936	-.26633
	GRADIENT	GRADIENT	.00230	-.04553	-.00280	-.00179	-.00098	-.00214	-.00233	-.00410	.00030

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA) (ENH040) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 401/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.048	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
			.05382	.34507	-.06424	-.25833	-.29974	-.28350	-.04096	-.18957	-.24019
	3.021		.06617	.29788	-.08468	-.26191	-.28874	-.28220	-.05051	-.21680	-.26271
	3.274		.07799	.27463	-.08417	-.25885	-.29162	-.27510	-.04409	-.21064	-.26616
		GRADIENT	.00548	-.01607	-.00461	-.00015	.00182	.00188	-.00078	-.00492	-.00597

RUN NO. 402/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.066	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
			.03617	.31988	-.06747	-.26188	-.29978	-.28462	-.04392	-.19581	-.24915
	7.198		.05275	.31778	-.07174	-.28316	-.29472	-.27453	-.04343	-.20064	-.25458
	7.335		.06812	.29641	-.08298	-.26922	-.29855	-.28469	-.05645	-.21989	-.27349
		GRADIENT	.00707	-.00497	-.00545	-.00128	.00062	.00021	-.00262	-.00516	-.00523

RUN NO. 403/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	9.783	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
			.03037	.30737	-.06743	-.25767	-.29799	-.28365	-.04687	-.19787	-.24631
	9.766		.04937	.31274	-.07694	-.26011	-.29415	-.27740	-.04560	-.20391	-.24714
	9.745		.06386	.29125	-.08412	-.26435	-.29318	-.27944	-.04586	-.21047	-.26705
		GRADIENT	.00784	-.00347	-.00391	-.00154	.00115	.00107	-.00025	-.00293	-.00463

RUN NO. 404/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	14.781	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
			.01754	.36126	-.07660	-.26640	-.30650	-.29233	-.05788	-.20331	-.25250
	14.685		.04498	.32227	-.07866	-.26426	-.29803	-.27884	-.04894	-.20239	-.25777
	14.592		.06009	.32217	-.09903	-.26974	-.29530	-.28465	-.05508	-.22286	-.27053
		GRADIENT	.00959	-.00926	-.00465	-.00061	.00256	.00201	-.00086	-.00397	-.00386

RUN NO. 405/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	29.804	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
			.00586	.36879	-.07038	-.26326	-.30600	-.28842	-.05442	-.19698	-.25082
	29.844		.03698	.31469	-.07721	-.25926	-.29965	-.27730	-.04328	-.19759	-.25441
	29.835		.05104	.30205	-.0827	-.26737	-.29545	-.28249	-.05135	-.21526	-.26899
		GRADIENT	.01027	-.00109	-.00369	-.00073	.00237	.00156	-.00097	-.00379	-.00386



DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

PAGE 293

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH040) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 406/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	BETA	STAB	5.000
44.515	-.091	.00113	.39356	-.07678	-.27314	-.30948	-.29692	-.06824	-.20609	-.25685	.000	ELEVON	5.000
44.728	2.446	.03055	.34526	-.07649	-.25529	-.29250	-.2810	-.04899	-.20594	-.25205	.000	DX	.000
44.671	4.476	.04788	.33269	-.08462	-.26652	-.29706	-.28517	-.05435	-.21273	-.26571	.000	MACH	.600
	GRADIENT	.01029	-.01356	-.00164	.00168	.00288	.00274	.00323	-.00139	-.00178			

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH041) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 411/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	BETA	STAB	5.000
3.328	2.137	.06328	.30419	-.08777	-.26327	-.29910	-.28064	-.07149	-.20356	-.24518	.000	ELEVON	5.000
3.325	4.298	.07417	.28506	-.09240	-.26079	-.29475	-.28391	-.07866	-.21381	-.26693	.000	DX	.000
	GRADIENT	.00504	-.00214	.00115	.00201	.00201	-.00151	-.00332	-.00474	-.01006	.000	MACH	.500

PARAMETRIC DATA

RUN NO. 412/ 0 RN/L = 2.96 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	BETA	STAB	5.000
6.838	2.085	.05231	.29661	-.09281	-.27141	-.30815	-.29032	-.07753	-.21139	-.25977	.000	ELEVON	5.000
7.184	4.439	.06501	.28545	-.09949	-.27007	-.30426	-.28971	-.08239	-.21406	-.26425	.000	DX	.000
	GRADIENT	.00539	-.00474	.00284	.00057	.00165	.00026	-.00207	-.00113	-.00191	.000	MACH	.500

RUN NO. 413/ 0 RN/L = 2.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2	BETA	STAB	5.000
9.770	2.418	.04697	.37786	-.09042	-.25569	-.29344	-.28746	-.08099	-.20690	-.25335	.000	ELEVON	5.000
9.780	4.469	.06158	.29847	-.09816	-.26549	-.30378	-.29111	-.08042	-.21545	-.26251	.000	DX	.000
	GRADIENT	.00649	-.03526	.00334	-.00036	-.00193	-.00162	.00025	-.00380	-.00407	.000	MACH	.500

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH041) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .500

RUN NO. 414/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.789	1.986	.03978	.28362	-.11052	-.28546	-.32839	-.30907	-.10265	-.22357	-.27401
14.819	4.441	.05719	.27186	-.11987	-.28832	-.32273	-.30732	-.10267	-.23671	-.27721
	GRADIENT	.00710	-.00683	-.00381	-.00117	.00230	.00071	-.00001	-.00536	-.00131

RUN NO. 415/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.638	2.215	.03379	.29887	-.09328	-.27306	-.31148	-.29299	-.08168	-.20854	-.26508
29.826	4.415	.05125	.28708	-.09842	-.27288	-.30611	-.29130	-.08253	-.21364	-.26674
	GRADIENT	.00794	-.00536	-.00234	-.00008	.00244	.00077	-.00039	-.00232	-.00075

RUN NO. 416/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.438	2.214	.02968	.34549	-.10640	-.28414	-.32269	-.30698	-.09998	-.21954	-.27272
44.694	4.330	.04570	.29554	-.12065	-.28908	-.32240	-.31165	-.10810	1.14666	-.29230
	GRADIENT	.00757	-.02361	-.00673	-.00233	.00013	-.00221	-.00384	.64583	-.00926

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ENH042) ( 08 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .300

RUN NO. 421/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
3.128	2.209	.06434	.22071	-.22779	-.39445	-.43129	-.41726	-.20762	-.32603	-.37252
3.123	4.221	.07396	.21372	-.17766	-.33116	-.36665	-.35334	-.15015	-.27437	-.31341
	GRADIENT	.00478	-.00348	.02491	.03145	.03212	.03176	.02855	.02567	.02937

RUN NO. 422/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
7.085	2.291	.05355	.24617	-.16130	-.31599	-.35195	-.35046	-.14274	-.26826	-.30007
7.303	4.347	.05308	.26880	-.17208	-.33041	-.37044	-.35443	-.14273	-.27170	-.31262
	GRADIENT	.00464	.01101	-.00524	-.00702	-.00413	-.00193	.00001	-.00168	-.00610

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = 0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .300

RUN NO. 423/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
9.285	2.180	.04863	.43002	-.22329	-.38712	-.42741	-.41603	-.20227	-.32667	-.37222
9.970	4.347	.05984	.28081	-.17673	-.33194	-.36741	-.35322	-.15101	-.26808	-.32218
	GRADIENT	.00517	-.06885	.02149	.02546	.02769	.02898	.02365	.02704	.02309

RUN NO. 424/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
14.488	2.266	.04253	.24752	-.23384	-.40157	-.44262	-.42253	-.21113	-.33081	-.39283
14.575	4.354	.05591	.22186	-.24255	-.39542	-.42949	-.41814	-.21285	-.33602	-.39280
	GRADIENT	.00641	-.01229	-.00417	.00294	.00629	.00210	-.00082	-.00250	.00001

RUN NO. 425/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
29.804	2.191	.03475	.20992	-.22763	-.38707	-.43612	-.41948	-.20923	-.32487	-.38532
29.724	4.292	.04968	.22412	-.17407	-.33662	-.36771	-.35350	-.14209	-.27266	-.31530
	GRADIENT	.00711	.00676	.02549	.02401	.03256	.03141	.03196	.02485	.03332

RUN NO. 426/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
44.766	2.202	.03084	.26827	-.16353	-.33279	-.37356	-.35938	-.14404	-.26456	-.31950
44.698	4.266	.04427	.36444	-.15890	-.33002	-.37074	-.35835	-.13880	-.27425	-.32294
	GRADIENT	.00550	.04660	-.00260	.00134	.00137	.00050	.00254	-.00469	-.00166

ARC 14-120(CA238) 0251

(ENH043) ( 09 OCT 75 )

REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 ELEVON = 5.000

DZ	ALPHA0	XZCP	XYZP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
2.284	4.518	.00067	.58343	-.05364	-.25147	-.28623	-.26537	-.14775	-.18945	-.24639
2.235	6.328	.01790	.53109	-.05609	-.23994	-.27836	-.26449	-.14708	-.18497	-.24608
1.862	8.269	.03028	.45293	-.05611	-.23811	-.27036	-.25863	-.14645	-.18322	-.25410
2.534	10.303	.02963	.25637	-.07094	-.24343	-.27894	-.26212	-.15104	-.19216	-.25624
2.332	12.406	.02653	.06893	-.07556	-.25110	-.28605	-.26231	-.15426	-.19962	-.25777
2.211	14.397	.02697	.08178	-.08466	-.26284	-.30137	-.28799	-.16091	-.20425	-.26873
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 431/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	XZCP	XYZP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
17.824	-.729	1.55828	.43386	-.01711	-.25338	-.29902	-.28990	-.15807	-.16317	-.23083
20.582	4.597	-.00122	.51144	-.04904	-.24447	-.28957	-.27642	-.15212	-.17870	-.24850
20.432	6.440	.01680	.43889	-.05688	-.23708	-.27978	-.26528	-.15518	-.18176	-.25078
20.388	8.441	.03012	.34424	-.06055	-.23892	-.26918	-.25900	-.15241	-.18589	-.24990
20.672	10.411	.02902	.25447	-.06966	-.24563	-.27845	-.26231	-.15549	-.19101	-.25505
20.407	12.376	.02665	.12517	-.07402	-.25160	-.28599	-.27202	-.16402	-.19330	-.26154
20.474	14.347	.02705	.10777	-.08329	-.26005	-.29900	-.28100	-.16576	-.19800	-.25656
	GRADIENT	-.29284	.01457	-.00600	.00167	.00177	.00253	.00112	.00292	-.00332

RUN NO. 432/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	XZCP	XYZP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
37.645	-.608	2.12768	.47241	-.03217	-.27009	-.31183	-.30140	-.17535	-.16946	-.24654
40.709	4.480	-.00470	.54379	-.06232	-.25769	-.29890	-.28659	-.16643	-.18917	-.25662
40.387	6.499	.01605	.51826	-.05876	-.24099	-.28025	-.25994	-.15082	-.17113	-.25019
40.324	8.438	.02917	.46346	-.05963	-.23982	-.27278	-.25792	-.15226	-.18012	-.24982
40.462	10.448	.02905	.31610	-.06612	-.23446	-.27229	-.26122	-.15259	-.19204	-.25176
40.577	12.427	.02697	.17547	-.07674	-.25585	1.11279	-.27354	-.16575	-.19760	-.26374
40.395	14.433	.02643	.09633	-.08933	-.26983	-.31529	-.29405	-.17999	-.20748	-.26847
	GRADIENT	-.41911	.01403	-.00593	.00244	.00254	.00291	.00175	-.00387	-.00198

RUN NO. 433/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

PAGE 297

ARC 14-120(CA23B) 03S1

REFERENCE DATA

(ENH044) ( 09 OCT 75 )

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA  
 BETA = .000 ELEVON = 5.000

RUN NO. 441/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
60.484	6.381	-.05693	.47153	-.02927	-.01694	-.01748	-.01989	-.16890	-.18149	-.25117
60.085	8.325	-.02488	.51159	-.03875	-.02376	-.02162	-.02322	-.16804	-.19132	-.26038
60.673	10.419	-.01019	.77805	-.04332	-.02639	-.03069	-.03176	-.16885	-.19223	-.26265
60.708	12.411	-.00679	.35734	-.05723	-.03582	-.04084	-.04295	-.18097	-.20662	-.27087
57.099	14.003	-.00328	.87467	-.06476	-.04536	-.04775	-.05174	-.18988	-.21591	-.28206
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ARC 14-120(CA23B) 03S1

REFERENCE DATA

(ENH045) ( 09 OCT 75 )

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 ELEVON = .000

RUN NO. 451/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
2.231	4.557	.08431	-.09005	-.01663	-.00629	-.00894	-.01133	-.15363	-.16927	-.22333
2.483	6.357	.08111	-.07983	-.02336	-.00929	-.01380	-.01062	-.15364	-.17806	-.23882
2.239	8.320	.09360	-.08408	-.03597	-.02281	-.02913	-.02860	-.16288	-.19157	-.25186
1.921	10.373	.08610	-.19476	-.02540	-.00974	-.01796	-.01982	-.15307	-.18200	-.25314
2.551	12.477	.06220	-.15388	-.02788	-.01301	-.01805	-.01991	-.15568	-.18916	-.25319
2.114	14.400	.05317	-.13322	-.04219	-.02304	-.03022	-.03288	-.17355	-.20014	-.25811
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 452/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
17.573	-.792	.11128	-.09456	-.00386	-.00571	-.00823	-.01139	-.17189	-.16637	-.23474
20.373	4.401	.08120	-.04674	-.02256	-.00903	-.00824	-.00877	-.15651	-.17746	-.23608
20.172	6.464	.07980	-.01557	-.02427	-.01052	-.01343	-.01501	-.15887	-.17553	-.24217
20.312	8.466	.09405	-.10524	-.02704	-.01014	-.01094	-.01622	-.15298	-.17437	-.24064
20.516	10.508	.08214	-.12173	-.02657	-.01148	-.01545	-.01545	-.15869	-.18305	-.24580
20.115	12.332	.06233	-.13282	-.03351	-.01836	-.01809	-.02128	-.16748	-.18849	-.25441
	GRADIENT	-.00579	.00321	-.00360	-.00064	-.00317	-.00388	-.00296	-.00214	-.00026

ORIGINAL PAGE IS OF POOR QUALITY

DATE 22 MAR 76

TABULATED SOURCE DATA - CA238

FILE 238

ARC 14-120(CA238) 0351

(ENH045) ( 09 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 ELEVON = .000

PARAMETRIC DATA

RUN NO. 453/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ	ALPHA	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
37.990	-.738	.11488	-.05613	.00025	.00155	.01220	.01220	-.17514	-.16370	-.23204
40.220	4.411	.08207	-.05982	-.01563	-.00648	-.00569	.00700	-.16156	-.17620	-.23557
39.923	6.397	.07862	-.05426	-.03215	-.02026	-.02181	-.02621	-.16658	-.19140	-.24956
40.358	8.474	.09158	-.07923	-.02539	-.00947	-.01312	-.01364	-.15854	-.18309	-.24470
40.425	10.464	.08286	-.13229	-.02734	-.01058	-.01582	-.01661	-.15540	-.18080	-.25151
40.404	12.438	.06067	-.19287	-.03850	-.02248	-.02221	-.02952	-.16513	-.19272	-.25103
40.396	14.497	.05253	-.15461	-.04310	-.02632	-.02397	-.02737	-.16369	-.18939	-.25781
	GRADIENT	-.00537	-.00072	-.00308	-.00155	-.00347	-.00373	.00264	-.00243	-.00069

ARC 14-120(CA238) 0251

(ENH046) ( 09 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 ELEVON = .000

PARAMETRIC DATA

RUN NO. 461/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ	ALPHA	XZCP	XYCP	CPC	CPB1	CPB2	CPB3	CPE3	CPS1	CPS2
38.822	-.234	-.25307	.25407	-.01245	-.23977	-.28402	-.27077	-.16241	-.15578	-.23024
40.088	2.253	.72559	.25578	-.02828	-.24150	-.28145	-.26187	-.15843	-.16452	-.23621
40.254	4.464	.22559	.26453	-.05432	-.23912	-.28199	-.26971	-.17142	-.17717	-.24461
40.159	6.430	.15820	.21086	-.05481	-.23229	-.26468	-.25151	-.16488	-.17963	-.24124
40.206	8.402	.14357	.17894	-.05380	-.23202	-.26317	-.24997	-.15941	-.18212	-.24786
40.248	10.328	.12230	.07883	-.06219	-.23324	-.26166	-.25113	-.15982	-.18403	-.24745
40.591	12.418	.09400	.01145	-.06283	-.24190	-.27166	-.25796	-.16579	-.19028	-.24321
39.934	14.328	.08538	.02665	-.07428	-.25391	-.28715	-.26974	-.17056	-.19166	-.25206
	GRADIENT	.10702	.00219	-.00883	.00012	.00044	.00029	-.00184	-.00451	-.00304







(UNH008) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 50.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.59057	.67175	-.18918	-.13324	.04286	.24172	.00648	-.00174	.00034
.000	.58914	-.05416	.10106	.02518	.04422	.20409	.01110	-.00274	.00107
2.000	.59028	-.07544	.18983	.18685	.04876	.16651	.01482	-.00295	.00117
4.000	.59000	-.18680	.09475	.08002	.00148	-.01880	.00208	-.00030	.00021
GRADIENT	.00000								

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.58987	-.09481	-.36797	-.12157	.04387	.22839	.00761	-.00214	.00047
.000	.58902	-.01120	-.31915	.04296	.04527	.18537	.01125	-.00213	.00075
2.000	.59118	-.05854	-.46731	.20284	.05043	.14789	.01507	-.00222	.00047
4.000	.00033	.00907	-.02484	.08110	.00164	-.02012	.00187	-.00002	.00000
GRADIENT									

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.59202	-.15116	-.53535	-.11037	.04463	.21582	.00729	-.00207	.00021
.000	.59301	.03752	-.47390	.05366	.04613	.17305	.01057	-.00209	.00033
2.000	.59058	-.02591	-.41868	.20976	.05106	.13832	.01355	-.00197	.00088
4.000	.00036	.03131	.02917	.08003	.00161	-.01938	.00159	.00002	.00017
GRADIENT									

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.59255	-.09969	-.47798	-.09979	.04521	.19656	.00794	-.00228	.00005
.000	.59219	.01879	-.34585	.06599	.04695	.15255	.01022	-.00185	.00029
2.000	.59101	-.06179	-.40137	.22600	.05221	.11935	.01438	-.00207	.00073
4.000	.00038	.00948	.01915	.08145	.00175	-.01930	.00161	.00005	.00017
GRADIENT									

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.59159	-.09209	-.40582	-.08088	.04525	.17065	.00697	-.00222	.00085
.000	.59155	.00780	-.33416	.09308	.04731	.12922	.01108	-.00220	.00047
2.000	.59167	-.12720	-.40864	.24997	.05296	.09164	.01527	-.00243	.00086
4.000	.00002	.00378	-.00070	.08271	.00193	-.01975	.00208	-.00005	.00000
GRADIENT									

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(UNH008) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN. ZC

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

MACH .59230  
 .59324  
 .59245  
 .00004

DX -.07540  
 .00616  
 .16935  
 -.02349

IORB 6.00000  
 6.00000  
 6.00000  
 .00000

DY -.47401  
 -.48236  
 .52115  
 -.01178

CL -.07383  
 .10678  
 .27128  
 .08628

CD .04521  
 .04761  
 .05364  
 .00211

CLM .15933  
 .11645  
 .07873  
 -.02015

CY .00825  
 .01196  
 .01426  
 .00150

CYN -.00247  
 -.00229  
 -.00221  
 .00006

CBL .00065  
 .00075  
 .00091  
 .00006

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

MACH .59329  
 .59239  
 .59204  
 -.00031

IORB 6.00000  
 6.00000  
 6.00000  
 .00000

DY -.53060  
 -.45502  
 -.48963  
 .01024

CL -.05979  
 .10559  
 .27450  
 .08357

CD .04572  
 .04759  
 .05360  
 .00197

CLM .15537  
 .11426  
 .07472  
 -.02016

CY .00832  
 .01181  
 .01534  
 .00176

CYN -.00245  
 -.00232  
 -.00238  
 .00002

CBL .00034  
 .00092  
 .00122  
 .00022

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(UNH009) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN. ZC

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

MACH .58956  
 .59001  
 .59111  
 .00039

IORB 8.00000  
 8.00000  
 8.00000  
 .00000

DY -.28840  
 -.55882  
 .58163  
 -.07331

CL -.16424  
 .00497  
 .16102  
 .08131

CD .03997  
 .04168  
 .04516  
 .00130

CY .00780  
 .01033  
 .01208  
 .00107

CYN -.00219  
 -.00224  
 -.00198  
 .00005

CBL .00008  
 .00058  
 .00017  
 .00002

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (UNH009) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVEN = 5.000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
ALPHAC	.58981	-2.01103	-.46973	-.15009	.04136	.27560	.00823	-.00251	.00025
.000	.59113	-.37391	-.49652	.01433	.04260	.23922	.01027	-.00238	.00080
2.000	.59117	-.02504	-.53884	.17324	.04686	.20636	.01282	-.00217	.00057
4.000	.00034	.49650	-.01728	.08083	.00137	-.01731	.00115	.00008	.00008
GRADIENT	.00000								

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.59127	-.07935	-.48612	-.13803	.04244	.25524	.00603	-.00222	.00065
.000	.59204	-.05658	-.43816	.01892	.04301	.22558	.01046	-.00255	.00102
2.000	.59073	-.05430	-.53020	.18116	.04799	.18959	.01359	-.00235	.00087
4.000	-.00013	.00626	-.01102	.07980	.00139	-.01641	.00189	-.00003	.00006
GRADIENT	.00000								

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.59244	-.18171	-.39780	-.12336	.04334	.23252	.00598	-.00215	.00046
.000	.59188	-.01052	-.46944	.03663	.04485	.20017	.00958	-.00236	.00094
2.000	.59315	-.09143	-.53470	.19560	.04976	.16279	.01332	-.00222	.00086
4.000	.00018	.02257	-.03422	.07974	.00160	-.01743	.00184	-.00002	.00010
GRADIENT	.00000								

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.59222	-.13688	-.52196	-.08845	.04494	.19136	.00682	-.00224	.00058
.000	.59285	-.10129	-.42881	.07165	.04651	.15507	.01125	-.00256	.00103
2.000	.59137	-.13779	-.53052	.23292	.05213	.11825	.01600	-.00278	.00122
4.000	-.00021	.00023	-.00214	.08034	.00180	-.01828	.00229	-.00013	.00016
GRADIENT	.00000								

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.59197	-.04829	-.55849	-.08292	.04496	.17571	.00684	-.00225	.00058
.000	.59243	-.05417	-.45491	.08516	.04666	.13653	.01028	-.00219	.00107
2.000	.59178	-.15068	-.45507	.25582	.05291	.09671	.01489	-.00242	.00102
4.000	-.00005	.02560	.02586	.08468	.00199	-.01975	.00201	-.00004	.00011
GRADIENT	.00000								

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(UNH009) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = .000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.59188	-.00194	-.52363	-.07192	.04549	.16922	.00871	-.00255	.00016
2.000	8.00000	.59167	-.01316	-.48819	.09602	.04728	.12927	.01129	-.00226	.00041
4.000	8.00000	.59268	-.09422	-.46192	.26545	.05304	.09073	.01531	-.00247	.00088
GRADIENT	.00000	.00020	-.02307	.01543	.08434	.00189	-.01962	.00165	.00002	.00018

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(UNH010) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = .000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.59528	-.14459	.39993	-.06378	.04118	-.02598	.01246	-.00417	.00031
2.000	8.00000	.59463	-.03459	.71214	.07974	.04386	-.05547	.01326	-.00346	-.00012
4.000	8.00000	.59120	-.02236	.67475	.23994	.04969	-.09160	.01450	-.00308	.00079
GRADIENT	.00000	-.00102	.03056	.06870	.07593	.00213	-.01640	.00051	.00027	.00012

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.59524	-.13105	-.08072	-.05254	.04245	-.04964	.01097	-.00327	.00022
2.000	8.00000	.59624	-.03201	.11391	.09615	.04523	-.08196	.01350	-.00323	.00025
4.000	8.00000	.59500	-.05084	.13091	.25924	.05194	-.12041	.01501	-.00283	.00084
GRADIENT	.00000	-.00006	.02005	.05291	.07869	.00237	-.01769	.00101	.00011	.00015

PARAMETRIC DATA

PARAMETRIC DATA

PARAMETRIC DATA

PARAMETRIC DATA

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

PAGE 305

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(UNH010) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
.000	8.00000	.59458	-.14457	-.40700	-.05202	.04323	-.06417	.00993	-.00265	.00022
2.000	8.00000	.59782	-.02622	-.40185	.11025	.04615	-.09904	.01402	-.00307	.00062
4.000	8.00000	.59922	-.07409	-.29551	.27228	.05350	-.13906	.01567	-.00265	.00101
GRADIENT	.00000	.00091	.01762	.02787	.08107	.00257	-.01872	.00144	-.00000	.00020

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.59642	-.13299	-.36917	-.03026	.04430	-.09211	.01034	-.00269	.00006
2.000	8.00000	.59651	-.02739	-.37159	.12909	.04746	-.12875	.01228	-.00284	.00044
4.000	8.00000	.59752	-.07079	-.40978	.29072	.05536	-.16972	.01431	-.00249	.00043
GRADIENT	.00000	.00027	.01555	-.01015	.08025	.00276	-.01940	.00099	-.00005	.00009

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.59671	-.10394	-.51761	.00478	.04508	-.14215	.01046	-.00279	.00032
2.000	8.00000	.59659	-.08286	-.47056	.17045	.04956	-.18458	.01298	-.00308	.00030
4.000	8.00000	.59605	-.11834	-.46531	.33194	.05833	-.22148	.01449	-.00296	.00051
GRADIENT	.00000	-.00017	-.00360	.01307	.08179	.00331	-.01983	.00101	-.00004	.00007

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.59578	-.10371	-.43686	.02641	.04546	-.16648	.00984	-.00280	.00027
2.000	8.00000	.59641	-.10516	-.42721	.19329	.05034	-.20981	.01276	-.00297	.00051
4.000	8.00000	.59539	-.19518	-.47170	.35651	.06005	-.24408	.01445	-.00281	.00047
GRADIENT	.00000	-.00010	-.02287	-.00871	.08252	.00365	-.01940	.00115	-.00000	.00005

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.59362	-.01092	-.44117	.02692	.04551	-.17103	.01014	-.00290	.00043
2.000	8.00000	.59473	-.00946	-.48167	.19668	.05052	-.21515	.01190	-.00289	.00052
4.000	8.00000	.59456	-.12097	-.53064	.36493	.06024	-.24492	.01437	-.00286	.00077
GRADIENT	.00000	.00023	-.02751	-.02237	.08450	.00368	-.01970	.00106	-.00001	.00008

QUALITY



ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (UNH011) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
= 45.000	.000	4.00000	.59326	-.07470	-.23397	-.03035	.04584	.14192	.00856	-.00215	.00028
	2.000	4.00000	.59326	-.21255	-.28003	.13812	.04743	.09964	.01277	-.00211	.00059
	4.000	4.00000	.59271	-.14676	-.22929	.30356	.05365	.06114	.01596	-.00221	.00099
	GRADIENT	.00000	-.00014	-.01801	.00117	.08348	.00195	-.02019	.00185	-.00002	.00018

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

DZ = 50.000

DZ	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
= 50.000	.000	4.00000	.59237	-.06283	-.25594	-.02678	.04580	.13949	.00895	-.00224	.00018
	2.000	4.00000	.59276	-.24187	-.29421	.14387	.04723	.09646	.01333	-.00218	.00054
	4.000	4.00000	.59289	-.17550	-.20810	.30852	.05355	.05875	.01601	-.00222	.00121
	GRADIENT	.00000	.00013	-.02817	.01196	.08383	.00194	-.02018	.00176	-.00001	.00026

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
= 3.500	.000	6.00000	.59330	-.02265	-.52888	-.04350	.04435	-.08317	.00615	-.00059	.00003
	2.000	6.00000	.59492	-.03416	-.45886	.11796	.04773	-.12749	.01033	-.00094	.00016
	4.000	6.00000	.59380	-.06456	-.53850	.27616	.05512	-.16135	.01180	-.00076	.00047
	GRADIENT	.00000	.00013	-.01048	-.00240	.07992	.00269	-.01955	.00141	-.00004	.00011

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(UNH013) ( 17 OC: 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	6.00000	.59143	-.14594	-.42355	-.02942	.04519	-.10496	.00688	-.00081	.00009
	2.000	6.00000	.59273	.03204	-.49989	.13008	.04880	-.14824	.00913	-.00073	.00050
	4.000	6.00000	.59233	-.03940	-.51321	.29248	.05690	-.18280	.01098	-.00062	.00071
	GRADIENT	.00000	.00022	.02663	-.02242	.08047	.00293	-.01946	.00103	.00005	.00016

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	6.00000	.59144	-.18620	-.44808	-.02384	.04541	-.11678	.00745	-.00107	.00037
	2.000	6.00000	.59173	-.00376	-.58353	.14075	.04936	-.15923	.00889	-.00079	.00030
	4.000	6.00000	.59203	-.07451	-.59846	.30175	.05746	-.19389	.01119	-.00073	.00041
	GRADIENT	.00000	.00015	.02792	-.03759	.08140	.00301	-.01928	.00093	.00008	.00001

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	6.00000	.59111	-.11818	-.47005	-.01132	.04596	-.13630	.00890	-.00138	-.00027
	2.000	6.00000	.59100	.09841	-.49785	.15003	.05016	-.17914	.00941	-.00104	.00032
	4.000	6.00000	.59097	-.01302	-.52853	.31481	.05858	-.21226	.01151	-.00093	.00044
	GRADIENT	.00000	-.00004	.02629	-.01462	.08153	.00316	-.01899	.00065	.00011	.00018

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	6.00000	.59008	-.13369	-.45772	.01950	.04617	-.17026	.01003	-.00221	.00010
	2.000	6.00000	.59033	.02128	-.53834	.18280	.05111	-.21182	.01142	-.00210	.00023
	4.000	6.00000	.59054	-.08049	-.50667	.34221	.06020	-.24339	.01406	-.00222	.00067
	GRADIENT	.00000	.00012	.01330	-.01224	.08068	.00351	-.01828	.00101	-.00000	.00014

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	6.00000	.59017	-.01960	-.53810	.03225	.04605	-.18376	.00921	-.00233	.00027
	2.000	6.00000	.59079	.05543	-.53705	.20242	.05144	-.22619	.01174	-.00233	.00008
	4.000	6.00000	.59103	-.08046	-.55385	.36367	.06099	-.25752	.01399	-.00239	.00068
	GRADIENT	.00000	.00021	.01522	-.00394	.08286	.00374	-.01844	.00120	-.00001	.00010



( UNH013 ) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
	.000	6.00000	.59036	.02183	-.48797	.03247	.04591	-.18689	.00942	-.00234	-.00046
	2.000	6.00000	.59152	-.18551	-.52602	.20588	.05134	-.23087	.01157	-.00234	.00071
	4.000	6.00000	.59141	-.18359	-.56621	.37698	.06104	-.26183	.01426	-.00243	.00097
	GRADIENT	.00000	.00026	-.05135	-.01956	.08463	.00378	-.01873	.00121	-.00002	.00013

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 1ORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

( UNH020 ) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.58802	-.05223	-.26345	.06661	.04758	-.20503	.01045	-.00197	.00008
	2.000	4.00000	.58859	-.02453	-.45158	.16992	.05226	-.23967	.01206	-.00197	.00033
	4.000	4.00000	.58835	-.08535	-.29278	.33031	.06103	-.26602	.01492	-.00184	.00032
	GRADIENT	.00000	.00008	-.00828	-.00733	.08092	.00336	-.01525	.00112	.00003	.00006

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 1ORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.58707	-.10972	-.44775	.01224	.04748	-.20700	.01038	-.00203	.00011
	2.000	4.00000	.58741	-.06173	-.37930	.17549	.05250	-.24616	.01260	-.00202	.00018
	4.000	4.00000	.58730	-.06510	-.36577	.34323	.06176	-.27383	.01508	-.00193	.00010
	GRADIENT	.00000	.00006	.01116	.02049	.08275	.00357	-.01671	.00118	.00003	-.00000

ARC 14-120(CA238) 747/1 AT1 QBS1 (CARRIER DATA)

(UNH020) (175)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
	.000	4.00000	.58804	-.10786	-.36690	.01599	.04758	-.20993	.01155	-.00223	-.00021
	2.000	4.00000	.58923	-.06237	-.29638	.18610	.05293	-.24907	.01376	-.00215	-.00016
	4.000	4.00000	.59037	-.07726	-.38358	.34660	.06207	-.27708	.01494	-.00188	.00062
	GRADIENT	.00000	.00058	.00765	-.00417	.08265	.00362	-.01679	.00095	.00009	.00021

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.58762	-.06338	-.37890	.03226	.04755	-.21377	.01018	-.00202	-.00016
	2.000	4.00000	.58706	-.07556	-.40109	.19479	.05307	-.25259	.01243	-.00201	.00015
	4.000	4.00000	.58649	-.05904	-.39269	.35786	.06273	-.28058	.01410	-.00179	.00057
	GRADIENT	.00000	-.00028	.00108	-.00345	.08140	.00379	-.01670	.00098	.00006	.00018

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.58719	-.10103	-.37297	.04295	.04708	-.21634	.01120	-.00260	-.00011
	2.000	4.00000	.58734	-.11109	-.40675	.21427	.05271	-.25687	.01232	-.00243	.00042
	4.000	4.00000	.58789	-.11348	-.37248	.37862	.06284	-.28548	.01399	-.00225	.00037
	GRADIENT	.00000	.00017	-.00311	.00012	.08392	.00394	-.01729	.00070	.00009	.00012

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.58474	.03140	-.36765	.05153	.04640	-.21412	.01051	-.00265	.00044
	2.000	4.00000	.58677	-.14937	-.36932	.22207	.05238	-.25572	.01245	-.00252	.00036
	4.000	4.00000	.58682	-.11437	-.44889	.39319	.06262	-.28582	.01445	-.00244	.00061
	GRADIENT	.00000	.00052	-.03644	-.02031	.08542	.00406	-.01792	.00099	.00005	.00004

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.58364	.09589	-.37556	.05573	.04615	-.21319	.00983	-.00256	.00069
	2.000	4.00000	.58607	-.16317	-.37271	.22342	.05227	-.25504	.01226	-.00249	.00037
	4.000	4.00000	.58546	-.10503	-.48330	.39816	.06258	-.28565	.01455	-.00246	.00069
	GRADIENT	.00000	.00046	-.05023	-.02694	.08561	.00411	-.01812	.00118	.00002	-.00000

PARAMETRIC DATA



ARC 14-120(CA23B) 747/1 ATI 0251 (CARRIER DATA)

(UNH021) ( 7 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.58957	-.02796	-.28104	-.02759	.04516	.11873	.0801	-.00138	.00080
	2.000	4.00000	.58996	-.10961	-.27460	.14072	.04700	.07839	.01345	-.00163	.00060
	4.000	4.00000	.58944	-.16285	-.17509	.30366	.05306	.04018	.01590	-.00161	.00113
	GRADIENT	.00000	-.00003	-.03372	.02649	.08281	.00198	-.01964	.00197	-.00006	.00008

DZ = 50.000 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	4.00000	.58947	-.03023	-.32597	-.02178	.04504	.12016	.00738	-.00120	.00074
2.000	4.00000	.58885	-.18927	-.26854	.14572	.04695	.07897	.01300	-.00153	.00043
4.000	4.00000	.58978	-.21103	-.11324	.30746	.05305	.04030	.01571	-.00155	.00109
GRADIENT	.00000	.00008	-.04520	.05318	.08231	.00200	-.01997	.00208	-.00009	.00009

ARC 14-120(CA23B) 747/1 ATI 0251 (CARRIER DATA)

(UNH022) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	8.00000	.58837	-.16255	.01217	-.06177	.04336	-.08610	.00825	-.00073	.00016
	2.000	8.00000	.58607	-.01185	-.22915	.09882	.04677	-.11945	.00963	-.00058	.00049
	4.000	8.00000	.58491	-.13636	-.26636	.26241	.05363	-.14996	.01013	-.00054	.00056
	GRADIENT	.00000	-.00086	.00655	-.06963	.08105	.00257	-.01596	.00047	-.00005	.00018

PARAMETRIC DATA

PARAMETRIC DATA

TABULATED SOURCE DATA - CA238

DATE 22 MAR 76

(UNH022) ( 17 OCT 75 )

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
.000	.000	8.00000	.58758	-.18018	-.11484	-.04150	.04437	-.10877	.00822	-.00096	.00011
2.000	2.000	8.00000	.58659	-.06165	-.19164	.11624	.04792	-.14344	.01015	-.00092	.00040
4.000	4.000	8.00000	.58630	-.12718	-.21764	.27772	.05515	-.17436	.01139	-.00075	.00052
GRADIENT	GRADIENT	.00000	-.00032	.01325	-.02575	.07981	.00269	-.01640	.00079	.00005	.00010

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	8.00000	.58709	-.19173	-.20231	-.02753	.04504	-.12347	.00839	-.00124	.00044
2.000	2.000	8.00000	.58728	-.07957	-.14578	.12739	.04870	-.15948	.01070	-.00130	.00033
4.000	4.000	8.00000	.58773	-.13358	-.16640	.28739	.05612	-.19049	.01242	-.00095	.00049
GRADIENT	GRADIENT	.00000	.00016	.01451	.00898	.07873	.00277	-.01676	.00101	.00007	.00001

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	8.00000	.58694	-.18748	-.23899	-.01506	.04556	-.14394	.00732	-.00082	.00010
2.000	2.000	8.00000	.58647	-.13443	-.18170	.14608	.04955	-.18260	.01011	-.00091	.00034
4.000	4.000	8.00000	.58681	-.07010	-.20146	.30536	.05784	-.21600	.01281	-.00091	.00042
GRADIENT	GRADIENT	.00000	-.00003	.02934	.00938	.08010	.00307	-.01802	.00137	-.00002	.00013

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	8.00000	.58879	-.10260	-.12441	.01507	.04612	-.17801	.00993	-.00177	.00007
2.000	2.000	8.00000	.58798	-.07780	-.12012	.18062	.05097	-.21960	.01207	-.00177	.00012
4.000	4.000	8.00000	.58857	-.15887	-.18301	.34482	.06008	-.25235	.01410	-.00173	.00041
GRADIENT	GRADIENT	.00000	-.00003	-.01407	-.01465	.08244	.00349	-.01859	.00104	.00001	.00012

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	8.00000	.58810	-.03873	-.20232	.03215	.04595	-.19229	.01002	-.00225	.00044
2.000	2.000	8.00000	.58849	-.04281	-.22615	.20215	.05110	-.23501	.01215	-.00235	.00098
4.000	4.000	8.00000	.58917	-.15924	-.17723	.37005	.06069	-.26671	.01501	-.00234	.00094
GRADIENT	GRADIENT	.00000	.00027	-.03030	.00627	.08448	.00368	-.01861	.00125	-.00002	.00013

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(UNH022) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 8.00000 IORB MACH DX DY CL CLM CD CBL  
 2.000 .58786 -.00133 -.19668 .03430 -.19423 .04600 .01007 -.00235  
 4.000 .58925 .00901 -.25501 .20062 .-23734 .05109 .01195 -.00234  
 GRADIENT .00000 .58842 -.11080 -.16164 .37105 .-26903 .06103 .01501 -.00236  
 .00014 -.02737 .00876 .08419 .00376 -.01870 .00124 -.00000 .00017

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(UNH023) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 6.00000 IORB MACH DX DY CL CLM CD CBL  
 2.000 .58722 -.10448 -.22757 -.02737 .-13833 .04607 .00888 -.00081  
 4.000 .58696 -.14791 -.26402 .13280 .-18096 .05021 .01015 -.00082  
 GRADIENT .00000 .58675 -.09563 -.31779 .29575 .-21441 .05823 .01221 -.00088  
 .00000 -.00012 .00221 .08078 .00304 .-01902 .00003 -.00002 .00015

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 6.00000 IORB MACH DX DY CL CLM CD CBL  
 2.000 .58692 -.12617 -.26758 -.01402 .-15829 .04664 .00833 -.00099  
 4.000 .58772 .02447 .-21541 .14630 .-20006 .05071 .00987 -.00089  
 GRADIENT .00000 .58744 -.05141 .-25423 .30860 .-23298 .05926 .01141 -.00075  
 .00000 .00013 .01869 .00334 .08066 .-01867 .00315 .00077 .00014

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DATE 22 MAR 76

TABLATED SOURCE DATA - CA23B

PAGE 315

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(UNH023) ( 17 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	6.00000	.58720	-.08080	-.32093	-.00541	.04667	-.16757	.00828	-.00104	.00003
2.000	.000	6.00000	.58738	.03240	-.29826	.15378	.05117	-.20838	.01010	-.00093	.00005
4.000	.000	6.00000	.58743	-.01548	-.31715	.32021	.05986	-.24053	.01162	-.00074	.00038
GRADIENT	.00000	.00000	.00006	.01633	.00094	.08141	.00330	-.01824	.00083	.00007	.00009

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	6.00000	.58887	-.08769	-.27717	.00749	.04679	-.18128	.00830	-.00113	.00036
2.000	.000	6.00000	.58732	.04181	-.32458	.17470	.05176	-.22303	.00958	-.00084	.00023
4.000	.000	6.00000	.58698	-.05553	-.31952	.33217	.06071	-.25324	.01177	-.00076	.00053
GRADIENT	.00000	.00000	-.00047	.00804	-.01059	.08117	.00348	-.01799	.00087	.00009	.00004

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	6.00000	.58737	-.13357	-.26229	.02878	.04650	-.19748	.00970	-.00215	.00062
2.000	.000	6.00000	.58778	-.01156	-.20880	.18870	.05174	-.23850	.01129	-.00191	.00057
4.000	.000	6.00000	.58784	-.12743	-.26464	.35861	.06158	-.27058	.01353	-.00180	.00064
GRADIENT	.00000	.00000	.00012	.00154	-.00059	.08246	.00377	-.01827	.00096	.00009	.00000

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	6.00000	.58641	.02545	-.31603	.04021	.04648	-.20498	.01059	-.00235	.00017
2.000	.000	6.00000	.58821	-.10675	-.27867	.20998	.05186	-.24754	.01203	-.00241	.00080
4.000	.000	6.00000	.58801	-.15959	-.27362	.37983	.06182	-.27858	.01445	-.00230	.00088
GRADIENT	.00000	.00000	.00040	-.04626	.01060	.08490	.00384	-.01840	.00096	.00001	.00026

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	6.00000	.58729	.06326	-.39692	.03944	.04632	-.20590	.01072	-.00253	.00048
2.000	.000	6.00000	.58609	-.12785	-.35762	.20918	.05185	-.24915	.01213	-.00243	.00081
4.000	.000	6.00000	.58823	-.17777	-.33684	.37943	.06189	-.28021	.01422	-.00222	.00071
GRADIENT	.00000	.00000	.00023	-.05026	.01502	.08500	.00389	-.01858	.00088	.00008	.00006

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

PAGE 013

ARC 14-120(CA23B) 747/1 ATI 0251 (CARRIER DATA)

(UNH024) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CYN	CBL
	.000	6.00000	.58656	-.15710	-.05439	-.10988	.04460	.18606	-.00116	.00026
	2.000	6.00000	.58694	-.05661	-.04203	.05906	.04526	.14362	-.00144	.00023
	4.000	6.00000	.58738	-.07286	-.01917	.21895	.05029	.10759	-.00135	.00063
	GRADIENT	.00000	.00021	.02106	.00880	.08221	.00142	-.01962	-.00005	.00009

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CYN	CBL
	.000	6.00000	.58752	-.15273	-.13760	-.08878	.04526	.17120	-.00129	.00007
	2.000	6.00000	.58737	-.02438	-.07570	.07001	.04635	.13007	-.00131	.00063
	4.000	6.00000	.58739	-.04263	-.02463	.23028	.05110	.09394	-.00127	.00083
	GRADIENT	.00000	-.00003	.02757	.02824	.07977	.00146	-.01932	.00000	.00019

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CYN	CBL
	.000	6.00000	.58782	-.18388	-.04983	-.07944	.04524	.16365	-.00100	.00049
	2.000	6.00000	.58743	-.00854	-.02874	.07941	.04651	.12266	-.00116	.00078
	4.000	6.00000	.58764	-.07576	-.07593	.23618	.05135	.08672	-.00113	.00096
	GRADIENT	.00000	-.00004	.02703	-.00652	.07890	.00153	-.01923	-.00003	.00012

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CYN	CBL
	.000	6.00000	.58804	-.10235	-.01767	-.07332	.04535	.15465	-.00115	.00044
	2.000	6.00000	.58810	.05297	-.02567	.09074	.04669	.11295	-.00097	.00079
	4.000	6.00000	.58742	.00257	.04641	.25163	.05193	.07695	-.00107	.00070
	GRADIENT	.00000	-.00016	.02623	.01602	.08124	.00164	-.01942	.00002	.00006

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CYN	CBL
	.000	6.00000	.58757	-.09908	-.05168	-.04820	.04543	.13901	-.00148	.00008
	2.000	6.00000	.58751	-.03402	-.00815	.11278	.04686	.10019	-.00150	.00077
	4.000	6.00000	.58750	-.11321	-.04740	.27511	.05248	.06283	-.00165	.00095
	GRADIENT	.00000	-.00002	-.00353	.00107	.08083	.00176	-.01905	-.00004	.00022



ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(UNH024) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
.000	.000	6.00000	.58586	.01170	-.06028	-.03946	.04499	.13502	.00819	-.00163	.00040
2.000	2.000	6.00000	.58569	-.14933	-.07757	.12987	.04675	.09308	.01354	-.00187	.00048
4.000	4.000	6.00000	.58577	-.17441	-.15908	.29287	.05244	.05481	.01639	-.00196	.00096
GRADIENT	GRADIENT	.00000	.00023	-.04653	-.02470	.08308	.00186	-.02005	.00205	-.00008	.00014

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	6.00000	.58618	.03737	-.02820	-.03565	.04507	.13293	.00885	-.00175	.00011
2.000	2.000	6.00000	.58665	-.18265	-.01953	.13267	.04676	.09141	.01352	-.00193	.00038
4.000	4.000	6.00000	.58739	-.13851	-.08646	.29806	.05247	.05405	.01587	-.00187	.00086
GRADIENT	GRADIENT	.00000	.00030	-.04397	-.01457	.08343	.00185	-.01972	.00175	-.00003	.00019

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(UNH025) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	8.00000	.58688	-.08582	.17360	-.14796	.04104	.23602	.00792	-.00201	.00092
2.000	2.000	8.00000	.58853	-.14166	-.01841	.03207	.04278	.20057	.00934	-.00137	.00181
4.000	4.000	8.00000	.58754	-.05494	-.02214	.17814	.04675	.17362	.01319	-.00164	.00106
GRADIENT	GRADIENT	.00000	.00016	.00772	-.04893	.08153	.00143	-.01560	.00132	-.00009	.00003

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(UNH025) ( 7 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
ALPHAC	.58726	-.09264	.11948	-.12312	.04251	.21692	.00695	-.00167	.00060
.000	.58832	-.09157	.02817	.03961	.04357	.18305	.00914	-.00134	.00125
2.000	.58763	-.06110	.00034	.19416	.04784	.15341	.01343	-.00154	.00100
4.000	.00009	.00788	-.02978	.07932	.00133	-.01588	.00162	.00003	.00010
GRADIENT	.00000								

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.58784	-.09040	.08861	-.10433	.04353	.20450	.00606	-.00140	.00038
.000	.58815	-.03781	.06364	.04136	.04396	.17248	.00862	-.00128	.00099
2.000	.58774	-.06054	.03091	.20425	.04857	.14015	.01393	-.00159	.00086
4.000	-.00003	.00746	-.01443	.07715	.00126	-.01609	.00197	-.00005	.00012
GRADIENT	.00000								

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.58688	-.11995	.04068	-.09466	.04413	.18738	.00673	-.00138	.00036
.000	.58833	-.06631	.03239	.06508	.04529	.15095	.00996	-.00137	.00040
2.000	.58759	-.08560	-.02535	.22219	.04961	.11959	.01270	-.00100	.00139
4.000	.00018	.00859	-.01651	.07921	.00137	-.01695	.00149	.00009	.00026
GRADIENT	.00000								

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.58726	-.13458	.04159	-.06970	.04457	.16028	.00747	-.00146	.00028
.000	.58815	-.11840	.01715	.08866	.04578	.12291	.01127	-.00147	.00099
2.000	.58844	-.17807	-.03594	.25281	.05100	.08722	.01445	-.00142	.00131
4.000	.00029	-.01087	-.01938	.08063	.00161	-.01827	.00174	.00001	.00026
GRADIENT	.00000								

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.58850	-.05870	-.01594	-.05526	.04446	.14871	.00824	-.00177	.00036
.000	.58832	-.09865	.01874	.11377	.04607	.10765	.01304	-.00194	.00072
2.000	.58778	-.17449	.00419	.27458	.05147	.07138	.01556	-.00189	.00122
4.000	-.00018	-.02895	.00503	.08246	.00175	-.01933	.00183	-.00003	.00022
GRADIENT	.00000								

REFERENCE DATA

SREF = 5500.0000 SQ.FT.      XMRP = 1339.9000 IN. XC      BETA = .000      STAB = -1.000  
 LREF = 327.7800 IN.      YMRP = .0000 IN. YC      RUDDER = .000      ELEVON = .000  
 BREF = 2348.0400 IN.      ZMRP = 190.7500 IN ZC      TORB = .000      DX = .000  
 SCALE = .0125      GRADIENT = .000000      DY = .000      MACH = .600

DZ = 50.000      RN/L = 3.32      GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
.000	8.00000	.58749	.01451	-.04207	-.05097	.04434	.14674	.00654	-.00146	.00067
2.000	8.00000	.58818	-.07501	.01766	.12066	.04592	.10544	.01156	-.00165	.00120
4.000	8.00000	.58720	-.18335	.05471	.28172	.05157	.06820	.01588	-.00194	.00121
GRADIENT	.00000	-.00007	-.04946	.02419	.08317	.00181	-.01963	.00233	-.00012	.00014

REFERENCE DATA

SREF = 5500.0000 SQ.FT.      XMRP = 1339.9000 IN. XC      BETA = .000      STAB = 5.000  
 LREF = 327.7800 IN.      YMRP = .0000 IN. YC      RUDDER = .000      ELEVON = .000  
 BREF = 2348.0400 IN.      ZMRP = 190.7500 IN ZC      TORB = .000      DX = .000  
 SCALE = .0125      GRADIENT = .000000      DY = .000      MACH = .600

DZ = 3.500      RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.58488	-.04747	.07762	-.05430	.04284	-.07760	.00449	-.00042	.00091
2.000	8.00000	.58749	-.16311	.16832	.12048	.04748	-.11636	.01135	-.00096	-.00086
4.000	8.00000	.58723	-.20081	.04725	.27824	.05396	-.14700	.01014	-.00082	.00075
GRADIENT	.00000	.00059	-.03834	-.00759	.08314	.00278	-.01735	.00141	-.00010	-.00004

REFERENCE DATA

SREF = 5500.0000 SQ.FT.      XMRP = 1339.9000 IN. XC      BETA = .000      STAB = 5.000  
 LREF = 327.7800 IN.      YMRP = .0000 IN. YC      RUDDER = .000      ELEVON = .000  
 BREF = 2348.0400 IN.      ZMRP = 190.7500 IN ZC      TORB = .000      DX = .000  
 SCALE = .0125      GRADIENT = .000000      DY = .000      MACH = .600

DZ = 7.500      RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.58594	-.11490	.07994	-.03863	.04405	-.09876	.00695	-.00105	.00039
2.000	8.00000	.58694	-.10494	.09838	.12853	.04811	-.13696	.01008	-.00104	.00001
4.000	8.00000	.58659	-.14418	.05239	.28725	.05527	-.16904	.01089	-.00090	.00079
GRADIENT	.00000	.00016	-.00732	-.00689	.08147	.00281	-.01757	.00098	-.00004	.00010

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(UNH027) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBI
	.000	8.00000	.58659	-.15926	.08776	-.02851	.04487	-.11208	.00851	-.00139	.00000
	2.000	8.00000	.58622	-.06494	.04699	.13242	.04844	-.14976	.00879	-.00095	.00084
	4.000	8.00000	.58595	-.07448	.06433	.29109	.05611	-.18363	.01146	-.00089	.00085
	GRADIENT	.00000	-.00016	.02119	-.00586	.07990	.00281	-.01789	.00074	.00012	.00021

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	8.00000	.58657	-.17151	.04284	-.01384	.04532	-.13360	.00918	-.00164	.00015
	2.000	8.00000	.58706	-.09136	.04109	.14975	.04957	-.17477	.00972	-.00156	.00032
	4.000	8.00000	.58624	-.13410	.04469	.30902	.05768	-.20811	.01266	-.00145	.00067
	GRADIENT	.00000	-.00008	.00935	.00046	.08071	.00309	-.01663	.00087	.00005	.00021

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	8.00000	.58635	-.13749	.03346	.01446	.04556	-.16926	.01022	-.00222	.00003
	2.000	8.00000	.58528	-.10994	.06309	.17631	.05027	-.21123	.01122	-.00204	.00080
	4.000	8.00000	.58570	-.12824	.02846	.34228	.05971	-.24451	.01331	-.00177	.00077
	GRADIENT	.00000	-.00016	.00231	-.00125	.08196	.00354	-.01881	.00077	.00011	.00018

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	8.00000	.58545	-.07774	.00509	.03667	.04568	-.18626	.01111	-.00272	.00002
	2.000	8.00000	.58604	-.08693	.07027	.20104	.05063	-.22874	.01297	-.00281	.00071
	4.000	8.00000	.58548	-.16555	-.00382	.36724	.06023	-.26065	.01406	-.00239	.00094
	GRADIENT	.00000	.00001	-.02195	-.00223	.08264	.00364	-.01860	.00074	.00008	.00024

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	8.00000	.58502	.04402	.04160	.02575	.04505	-.18498	.01053	-.00278	.00018
	2.000	8.00000	.58562	-.10936	.05879	.19856	.05052	-.23158	.01319	-.00288	.00052
	4.000	8.00000	.57532	-.16369	.07356	.37337	.06068	-.26409	.01444	-.00250	.00067
	GRADIENT	.00000	.00007	-.05193	.00799	.08691	.00391	-.01978	.00098	.00007	.00012

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(UNH034) ( 17 OCT 75 )

REFERENCE DATA

PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	.000	6.00000	.58836	-.09135	-.01652	-.03268	.04592	-.13213	.01209	-.00335	-.00054
	2.000	6.00000	.58780	.17907	-.08260	.13357	.04994	-.17659	.01418	-.00306	.00051
	4.000	6.00000	.58729	.00698	-.01949	.29278	.05817	-.21189	.01574	-.00282	.00049
	GRADIENT	.00000	-.00027	.02458	-.00074	.06137	.00306	-.01994	.00091	.00013	-.00001

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

OZ	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.500	.000	6.00000	.58714	-.10221	-.02782	-.01674	.04650	-.15176	.01218	-.00302	-.00012
	2.000	6.00000	.58690	.05748	-.04403	.14699	.05062	-.19335	.01327	-.00267	.00051
	4.000	6.00000	.58754	-.00159	-.04800	.30774	.05903	-.22759	.01416	-.00225	.00073
	GRADIENT	.00000	.00010	.02516	-.00505	.08112	.00313	-.01896	.00049	.00019	.00021

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.000	.000	6.00000	.58771	-.09950	-.02445	-.00959	.04641	-.15794	.01144	-.00279	.00026
	2.000	6.00000	.58687	.05662	-.03676	.15111	.05070	-.20081	.01260	-.00252	.00046
	4.000	6.00000	.58669	-.03795	-.06593	.31357	.05955	-.23488	.01375	-.00203	.00068
	GRADIENT	.00000	-.00026	.01539	-.01037	.08079	.00328	-.01923	.00058	.00019	.00010

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.000	.000	6.00000	.58751	-.08943	-.05005	-.00199	.04646	-.17012	.01069	-.00229	-.00012
	2.000	6.00000	.58668	.05800	-.05788	.16662	.05121	-.21307	.01251	-.00202	.00007
	4.000	6.00000	.58727	-.05445	-.07621	.32957	.06033	-.24570	.01387	-.00157	.00065
	GRADIENT	.00000	-.00005	.00875	-.00654	.08289	.00347	-.01889	.00080	.00018	.00019

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

OZ	ALPHAC	TORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.000	.000	6.00000	.58634	-.06173	-.00569	.02124	.04650	-.18901	.01274	-.00295	-.00021
	2.000	6.00000	.58733	.02490	-.04001	.18996	.05156	-.23293	.01365	-.00274	.00047
	4.000	6.00000	.58711	-.07390	-.09332	.35743	.06122	-.26527	.01415	-.00208	.00035
	GRADIENT	.00000	.00013	-.00304	-.02191	.08405	.00368	-.01906	.00035	.00022	.00014

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(UNH034) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC

.000  
 2.000  
 4.000  
 GRADIENT

MACH

.58727  
 .58711  
 .58752  
 .00006

DX

-.01533  
 -.12592  
 -.15392  
 -.03465

DY

-.05004  
 -.06051  
 .00100  
 .01276

CL

.03668  
 .20726  
 .37482  
 .08453

CD

.04619  
 .05140  
 .06128  
 .00377

CLM

-.19882  
 -.24180  
 -.27317  
 -.01859

CY

.01285  
 .01316  
 .01473  
 .00047

CYN

-.00321  
 -.00301  
 -.00268  
 .00013

CBI

-.00001  
 .00077  
 .00089  
 .00023

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC

.000  
 2.000  
 4.000  
 GRADIENT

MACH

.58796  
 .58812  
 .58765  
 -.00008

DX

.05894  
 -.14432  
 -.16747  
 -.05660

DY

.01188  
 -.02287  
 -.05059  
 -.01562

CL

.03675  
 .20765  
 .37926  
 .08563

CD

.04585  
 .05115  
 .06107  
 .00381

CLM

-.19898  
 -.24355  
 -.27534  
 -.01909

CY

.01133  
 .01317  
 .01493  
 .00090

CYN

-.00299  
 -.00290  
 -.00262  
 .00009

CBL

.00045  
 .00084  
 .00134  
 .00022

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(UNH035) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC

.000  
 2.000  
 4.000  
 GRADIENT

MACH

.58696  
 .58770  
 .58780  
 .00021

DX

-.07973  
 -.01208  
 -.03882  
 .01023

DY

.05157  
 .10413  
 .03346  
 -.00453

CL

-.00147  
 .16456  
 .32868  
 .08254

CD

.04771  
 .05234  
 .06121  
 .00337

CLM

-.19862  
 -.23248  
 -.26341  
 -.01595

CY

.01159  
 .01191  
 .01348  
 .00047

CYN

-.00206  
 -.00185  
 -.00146  
 .00015

CBL

-.00045  
 .00034  
 .00040  
 .00021

ARC 14-120(CA238) 747/1 AT1 03S1 (CARRIER DATA) (UNH035) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = 2000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 1ORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	MACH								
.000	.58699	-.16588	.05294	.01516	.04781	-.20725	.01140	-.00196	-.00038
2.000	.58732	.07436	.05716	.17637	.05237	-.23935	.01258	-.00182	.00031
4.000	.58723	-.00439	.06897	.33802	.06168	-.26922	.01344	-.00137	.00012
GRADIENT	.00006	.04037	.00401	.08071	.00347	-.01549	.00051	.00015	.00012

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	MACH								
.000	.58779	-.07609	.12369	.02157	.04754	-.20867	.01095	-.00200	.00025
2.000	.58794	.10970	.05689	.18617	.05236	-.24368	.01280	-.00177	.00024
4.000	.58841	.00020	.07970	.34709	.06164	-.27260	.01370	-.00126	.00016
GRADIENT	.00016	.01907	-.01100	.08138	.00352	-.01598	.00069	.00018	-.00002

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	MACH								
.000	.58849	-.17434	.06725	.02856	.04738	-.21150	.01143	-.00176	-.00029
2.000	.58824	-.06427	.07796	.19468	.05251	-.24642	.01266	-.00145	-.00038
4.000	.58819	-.07067	.01371	.35654	.06196	-.27566	.01318	-.00106	.00030
GRADIENT	.00000	.02592	-.01339	.08199	.00365	-.01604	.00044	.00018	.00015

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	MACH								
.000	.58969	-.07086	.09440	.03922	.04663	-.21515	.01226	-.00272	.00051
2.000	.58898	-.10285	.05238	.20961	.05201	-.25376	.01419	-.00266	.00069
4.000	.58898	-.16552	.05946	.38056	.06197	-.28366	.01506	-.00215	.00074
GRADIENT	.00000	-.02367	-.00873	.08534	.00383	-.01713	.00070	.00014	.00006

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	MACH								
.000	.58793	.04568	.10000	.05016	.04644	-.21639	.01278	-.00297	.00009
2.000	.58837	-.13136	.04855	.21359	.05162	-.25473	.01368	-.00266	.00034
4.000	.58880	-.19234	.00955	.38790	.06169	-.28557	.01536	-.00237	.00071
GRADIENT	.00000	-.05951	-.02261	.08443	.00381	-.01729	.00065	.00015	.00015

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(UNH035) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC

4.00000  
 4.00000  
 4.00000  
 4.00000  
 GRADIENT .00000

MACH

.58712  
 .58810  
 .58850  
 .00035

DX

.05959  
 -.16166  
 -.20141  
 -.06525

DY

.08025  
 .05529  
 -.03100  
 -.02781

CL

.05400  
 .21377  
 .38875  
 .08369

CLM

-.21679  
 -.25435  
 -.28565  
 -.01722

CY

.01307  
 .01329  
 .01518  
 .00053

CYN

-.00295  
 -.00248  
 -.00231  
 .00016

CBI

-.00031  
 -.00000  
 .00068  
 .00025

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(UNH040) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC

4.00000  
 4.00000  
 4.00000  
 4.00000  
 GRADIENT .00000

MACH

.58585  
 .58731  
 .58671  
 .00022

DX

-.03191  
 -.01566  
 -.06186  
 -.00749

DY

.01407  
 -.03599  
 -.01604  
 -.00753

CL

-.01942  
 .15274  
 .31372  
 .08329

CLM

-.14557  
 -.18646  
 -.22270  
 -.01928

CY

.01474  
 .01557  
 .01765  
 .00073

CYN

-.00362  
 -.00338  
 -.00329  
 .00008

CBL

-.00019  
 .00003  
 .00032  
 .00013

DZ = 7.500

ALPHAC

4.00000  
 4.00000  
 4.00000  
 4.00000  
 GRADIENT .00000

MACH

.58538  
 .58728  
 .58751  
 .00053

DX

-.06427  
 -.05303  
 -.06491  
 -.00016

DY

.08346  
 -.00542  
 -.02533  
 -.02720

CL

-.00171  
 .16051  
 .32261  
 .08108

CLM

-.15883  
 -.19795  
 -.23335  
 -.01863

CY

.01544  
 .01498  
 .01745  
 .00050

CYN

-.00418  
 -.00346  
 -.00329  
 .00022

CBL

-.00044  
 .00031  
 .00046  
 .00023



ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(UNH040) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = 5.600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	4.00000	.58556	-.10309	.08607	.00535	.04658	-.16653	.01607	-.00436	.00002
2.000	.000	4.00000	.58679	-.05271	.00618	.16581	.05106	-.20515	.01551	-.00356	.00060
4.000	.000	4.00000	.58753	-.09386	-.02923	.32991	.05991	-.24058	.01737	-.00327	.00036
GRADIENT	.00000	.00000	.00049	.00156	-.02883	.08114	.00333	-.01851	.00033	.00027	.00009

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	4.00000	.58574	-.08259	.05888	.00184	.04624	-.17375	.01409	-.00401	-.00008
2.000	.000	4.00000	.58678	-.05371	.00511	.18348	.05151	-.21870	.01544	-.00342	.00027
4.000	.000	4.00000	.58737	-.03650	-.06713	.34296	.06053	-.25088	.01683	-.00307	.00054
GRADIENT	.00000	.00000	.00041	.01152	-.03150	.08528	.00357	-.01928	.00068	.00024	.00015

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	4.00000	.58568	-.11834	.06133	.02073	.04598	-.19353	.01357	-.00334	.00001
2.000	.000	4.00000	.58780	.04836	.03333	.19987	.05162	-.23772	.01437	-.00298	.00057
4.000	.000	4.00000	.58718	-.09299	-.04051	.36336	.06124	-.26893	.01500	-.00240	.00075
GRADIENT	.00000	.00000	.00038	.00634	-.02546	.08566	.00382	-.01885	.00036	.00023	.00018

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	4.00000	.58585	.03619	.07788	.03011	.04566	-.19892	.01303	-.00302	-.00002
2.000	.000	4.00000	.58757	-.12600	.00303	.20670	.05147	-.24439	.01417	-.00281	.00012
4.000	.000	4.00000	.58694	-.16483	-.04890	.38019	.06165	-.27747	.01589	-.00245	.00061
GRADIENT	.00000	.00000	.00027	-.05025	-.03169	.08752	.00400	-.01964	.00072	.00014	.00016

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
.000	.000	4.00000	.58530	.11191	.07140	.03124	.04555	-.19949	.01255	-.00292	-.00012
2.000	.000	4.00000	.58745	-.22841	-.02607	.20972	.05146	-.24641	.01417	-.00277	-.00017
4.000	.000	4.00000	.58688	-.18856	-.05982	.38609	.06179	-.27987	.01643	-.00253	.00057
GRADIENT	.00000	.00000	.00025	-.07512	-.03280	.08671	.00406	-.02010	.00097	.00010	.00017

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 ATI 0251 (CARRIER DATA)

(UNHX10) (17 OCT 75)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.00000	.69102	.07986	.04387	-.05559	.01316	-.00339	-.00011
	4.000	.00000	.65567	.23997	.04971	-.09165	.01442	-.00303	.00079
	GRADIENT	.00000	-.01768	.09006	.00292	-.01803	.00063	.00018	.00045

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.00000	.10196	.03823	.04524	-.08210	.01339	-.00317	.00025
	4.000	.00000	.12026	.25938	.05196	-.12044	.01493	-.00279	.00083
	GRADIENT	.00000	.00915	.08057	.00336	-.01917	.00077	.00019	.00029

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.00000	-.40753	.11034	.04616	-.09913	.01393	-.00303	.00061
	4.000	.00000	-.29938	.27248	.05352	-.13902	.01562	-.00262	.00100
	GRADIENT	.00000	.05407	.08107	.00368	-.01995	.00085	.00020	.00020

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.00000	-.37808	.12903	.04747	-.12887	.01219	-.00280	.00043
	4.000	.00000	-.41522	.29092	.05538	-.16973	.01424	-.00246	.00043
	GRADIENT	.00000	-.01857	.08095	.00395	-.02043	.00103	.00017	-.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.00000	-.47262	.17058	.04958	-.18462	.01295	-.00306	.00030
	4.000	.00000	-.47028	.33210	.05636	-.22147	.01447	-.00294	.00061
	GRADIENT	.00000	.00117	.08076	.00439	-.01842	.00076	.00006	.00016

ARC 14-120(CA238) 747/1 ATI 0251 (CARRIER DATA)

(UNHX10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	DX = 0.0000	DY = -0.43160	CL = 0.19343	CD = 0.05035	CLM = -0.20987	CY = 0.01274	CYN = -0.00297	CBL = 0.00051
ALPHAC = 2.000	1ORB = 8.00000	MACH = 0.59632	CL = 0.19343	CD = 0.05035	CLM = -0.20987	CY = 0.01274	CYN = -0.00297	CBL = 0.00051
4.000	8.00000	.59632	.19343	.05035	-.20987	.01274	-.00297	.00051
GRADIENT = 0.00000	.00000	-.00054	.08165	.00486	-.01713	.00084	.00008	-.00001

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 1ORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	DX = 0.0000	DY = -0.49407	CL = 0.19671	CD = 0.05053	CLM = -0.21516	CY = 0.01189	CYN = -0.00289	CBL = 0.00053
ALPHAC = 2.000	1ORB = 8.00000	MACH = 0.59473	CL = 0.19671	CD = 0.05053	CLM = -0.21516	CY = 0.01189	CYN = -0.00289	CBL = 0.00053
4.000	8.00000	.59448	.19671	.05026	-.24982	.01436	-.00285	.00077
GRADIENT = 0.00000	.00000	-.00013	.08417	.00487	-.01733	.00124	.00002	.00012

ARC 14-120(CA238) 747/1 ATI 0251 (CARRIER DATA)

(UNHX13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	DX = 0.0000	DY = -0.40468	CL = 0.11786	CD = 0.04770	CLM = -0.12704	CY = 0.01061	CYN = -0.00111	CBL = 0.00015
ALPHAC = 2.000	1ORB = 5.00000	MACH = 0.59463	CL = 0.11786	CD = 0.04770	CLM = -0.12704	CY = 0.01061	CYN = -0.00111	CBL = 0.00015
4.000	6.00000	.59358	.27632	.05509	-.16120	.01194	-.00084	.00047
GRADIENT = 0.00000	.00000	-.00052	.07923	.00369	-.01708	.00067	.00013	.00016

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 1ORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	DX = 0.0000	DY = -0.47674	CL = 0.12999	CD = 0.04878	CLM = -0.14788	CY = 0.00934	CYN = -0.00085	CBL = 0.00049
ALPHAC = 2.000	1ORB = 6.00000	MACH = 0.59270	CL = 0.12999	CD = 0.04878	CLM = -0.14788	CY = 0.00934	CYN = -0.00085	CBL = 0.00049
4.000	6.00000	.59228	.29249	.05685	-.18256	.01120	-.00071	.00071
GRADIENT = 0.00000	.00000	-.00021	.08125	.00403	-.01734	.00093	.00007	.00011

ARC 14-120(CA238) 747/1 AT1 0251 (CARRIER DATA)

(UNHX13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	1ORB	MACH	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	.59175	.14066	.04934	-.15898	.00910	-.00088	.00031
4.000	6.00000	.59204	.30184	.05744	-.19377	.01136	-.00080	.00042
GRADIENT	.00000	.00014	.08059	.00405	-.01740	.00113	.00004	.00005

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	1ORB	MACH	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	.59106	.15017	.05013	-.17885	.00960	-.00113	.00033
4.000	6.00000	.59101	.31490	.05857	-.21221	.01164	-.00099	.00045
GRADIENT	.00000	-.00003	.08236	.00422	-.01668	.00102	.00007	.00006

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	1ORB	MACH	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	.59039	.18284	.05109	-.21177	.01149	-.00213	.00024
4.000	6.00000	.59057	.34257	.06019	-.24351	.01407	-.00223	.00067
GRADIENT	.00000	.00009	.07986	.00455	-.01587	.00129	-.00005	.00021

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	1ORB	MACH	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	.59084	.20228	.05141	-.22618	.01184	-.00236	.00009
4.000	6.00000	.59105	.36404	.06099	-.25773	.01403	-.00239	.00068
GRADIENT	.00000	.00011	.08088	.00479	-.01578	.00110	-.00002	.00029

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	1ORB	MACH	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	.59149	.20609	.05134	-.23104	.01162	-.00235	.00069
4.000	6.00000	.59137	.37143	.06106	-.26206	.01428	-.00243	.00096
GRADIENT	.00000	-.00006	.08267	.00486	-.01551	.00133	-.00004	.00014



REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.000	2.000	6.00000	10.00000	-.58631	.20857	.05147	-.23527	.01041	-.00225	.00088
4.000	4.000	6.00000	10.00000	-.62227	.38107	.06185	-.26432	.01313	-.00216	.00061
GRADIENT	GRADIENT	.00000	.00000	-.01798	.09625	.00519	-.01452	.00136	.00005	-.00013

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.000	2.000	6.00000	10.00000	-.57745	.21844	.05185	-.23842	.01167	-.00232	.00049
4.000	4.000	6.00000	10.00000	-.62433	.38423	.06199	-.26654	.01356	-.00221	.00101
GRADIENT	GRADIENT	.00000	.00000	-.02344	.08290	.00507	-.01406	.00095	.00006	.00026

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(UNHX15) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.000	2.000	8.00000	10.00000	-.59402	.13248	.04391	-.05484	.00750	.00008	.00037
4.000	4.000	8.00000	10.00000	-.65242	.26165	.05117	-.08262	.01211	-.00049	.00004
GRADIENT	GRADIENT	.00000	.00000	-.02920	.07959	.00363	-.01389	.00231	-.00029	-.00017

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.000	2.000	8.00000	10.00000	-.66536	.11980	.04580	-.08403	.00853	-.00026	.00033
4.000	4.000	8.00000	10.00000	-.65825	.28269	.05350	-.11400	.01168	-.00056	.00016
GRADIENT	GRADIENT	.00000	.00000	.00356	.08144	.00385	-.01498	.00157	-.00015	-.00008

PARAMETRIC DATA

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 ATI 0251 (CARRIER DATA) (UNHX15) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHA  
 2.000  
 4.000  
 GRADIENT

IORB  
 8.00000  
 8.00000  
 .00000

DX  
 10.0000  
 10.0000  
 .00000

MACH  
 .58891  
 .58894  
 .00001

DY  
 -.69918  
 -.64470  
 .02724

CL  
 .13157  
 .29669  
 .09256

CD  
 .04714  
 .05508  
 .00397

CLM  
 -.10219  
 -.13423  
 -.01602

CY  
 .00896  
 .01121  
 .00113

CYN  
 -.00042  
 -.00060  
 -.00009

CBI  
 .00039  
 .00033  
 -.00003

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHA  
 2.000  
 4.000  
 GRADIENT

IORB  
 8.00000  
 8.00000  
 .00000

DX  
 10.0000  
 10.0000  
 .00000

MACH  
 .58823  
 .58988  
 .00082

DY  
 -.73661  
 -.71417  
 .01122

CL  
 .14907  
 .31657  
 .08375

CD  
 .04855  
 .05721  
 .00433

CLM  
 -.13334  
 -.16749  
 -.01707

CY  
 .01014  
 .01183  
 .00084

CYN  
 -.00083  
 -.00079  
 .00002

CBL  
 -.00030  
 .00006  
 .00018

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHA  
 2.000  
 4.000  
 GRADIENT

IORB  
 8.00000  
 8.00000  
 .00000

DX  
 10.0000  
 10.0000  
 .00000

MACH  
 .58915  
 .59073  
 .00079

DY  
 -.59283  
 -.65031  
 -.02874

CL  
 .18411  
 .34837  
 .08213

CD  
 .05048  
 .05987  
 .00469

CLM  
 -.18845  
 -.22122  
 -.01639

CY  
 .01107  
 .01382  
 .00137

CYN  
 -.00228  
 -.00234  
 -.00003

CBL  
 .00087  
 .00101  
 .00007

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHA  
 2.000  
 4.000  
 GRADIENT

IORB  
 8.00000  
 8.00000  
 .00000

DX  
 10.0000  
 10.0000  
 .00000

MACH  
 .58995  
 .58956  
 -.00020

DY  
 -.70121  
 -.69625  
 .00248

CL  
 .20365  
 .35760  
 .03198

CD  
 .05113  
 .06094  
 .00490

CLM  
 -.21479  
 -.24574  
 -.01548

CY  
 .01164  
 .01412  
 .00124

CYN  
 -.00258  
 -.00253  
 .00033

CBL  
 .00056  
 .00118  
 .00031

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHA  
 2.000  
 4.000  
 GRADIENT

IORB  
 8.00000  
 8.00000  
 .00000

DX  
 10.0000  
 10.0000  
 .00000

MACH  
 .58887  
 .58933  
 .00023

DY  
 -.71338  
 -.67087  
 .02125

CL  
 .20659  
 .37512  
 .08426

CD  
 .05125  
 .06133  
 .00504

CLM  
 -.21978  
 -.25069  
 -.01546

CY  
 .01184  
 .01420  
 .00118

CYN  
 -.00277  
 -.00262  
 .00007

CBL  
 .00067  
 .00082  
 .00008

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(UNHX16) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	6.00000	20.00000	.58974	-.85011	.15085	.04630	-.12689	.00776	-.00008	.00022
	4.000	6.00000	20.00000	.59003	-.76988	.31987	.05538	-.15537	.01061	-.00031	.00038
	GRADIENT	.00000	.00000	.00015	.04011	.08251	.00454	-.01424	.00143	-.00011	.00008

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	6.00000	20.00000	.58931	-.81185	.16466	.04897	-.15231	.00855	-.00042	.00032
	4.000	6.00000	20.00000	.58946	-.81231	.32781	.05757	-.18086	.01110	-.00050	.00041
	GRADIENT	.00000	.00000	.00008	-.00023	.08158	.00430	-.01428	.00127	-.00004	.00005

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	6.00000	20.00000	.59013	-.76413	.16611	.04979	-.16466	.00782	-.00037	.00025
	4.000	6.00000	20.00000	.58931	-.80148	.33252	.05852	-.19278	.01108	-.00054	.00033
	GRADIENT	.00000	.00000	-.00041	-.01867	.08320	.00437	-.01406	.00163	-.00009	.00004

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	6.00000	20.00000	.58937	-.84082	.18321	.05046	-.18553	.00857	-.00083	.00053
	4.000	6.00000	20.00000	.58980	-.75321	.34561	.05962	-.21346	.01207	-.00102	.00008
	GRADIENT	.00000	.00000	.00022	.04380	.08120	.00458	-.01397	.00175	-.00009	-.00023

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	.00	6.00000	20.00000	.59004	-.80629	.20357	.05179	-.21954	.01067	-.00219	.00058
	4.000	6.00000	20.00000	.59027	-.85063	.36766	.06124	-.24640	.01311	-.00224	.00099
	GRADIENT	.00000	.00000	.00011	-.02217	.08204	.00472	-.01343	.00122	-.00003	.00020



REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBI
	2.000	6.00000	20.00000	.58948	-.75331	.21949	.05221	-.23442	.01117	-.00249	.00068
	4.000	6.00000	20.00000	.58970	-.77027	.28645	.06213	-.26107	.01414	-.00253	.00088
	GRADIENT	.00000	.00000	.00011	-.00848	.08348	.00496	-.01332	.00149	-.00002	.00010

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	6.00000	20.00000	.58887	-.80299	.21729	.05188	-.23714	.01084	-.00246	.00085
	4.000	6.00000	20.00000	.58896	-.77864	.28954	.06237	-.26406	.01419	-.00254	.00109
	GRADIENT	.00000	.00000	.00005	.01218	.08613	.00525	-.01346	.00168	-.00004	.00012

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	20.00000	.58981	-.53583	.11412	.04261	-.06286	.00893	-.00097	-.00027
	4.000	8.00000	20.00000	.58835	-.91880	.28990	.05042	-.07928	.01512	-.00127	.00056
	GRADIENT	.00000	.00000	-.00073	-.19148	.08789	.00390	-.00821	.00309	-.00015	.00041

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	20.00000	.59078	-.71654	.13327	.04475	-.08828	.00987	-.00118	.00007
	4.000	8.00000	20.00000	.58999	-.86405	.30140	.05254	-.11053	.01392	-.00132	.00035
	GRADIENT	.00000	.00000	-.00039	-.07376	.08407	.00389	-.01112	.00203	-.00007	.00014

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(UNHX17) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT .00000

IORB 8.00000  
 8.00000  
 .00000

UX 20.00000  
 20.00000  
 .00000

MACH .59142  
 .59107  
 -.00017

DY -.82520  
 -.81252  
 .00634

CL .14666  
 .30947  
 .09141

CD .04637  
 .05403  
 .00383

CLM -.10403  
 -.13156  
 -.01377

CY .01040  
 .01296  
 .00128

CYN -.00132  
 -.00134  
 -.00001

CBI .00039  
 .00012  
 -.00013

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT .00000

IORB 8.00000  
 8.00000  
 .00000

DX 20.00000  
 20.00000  
 .00000

MACH .59121  
 .59220  
 .00050

DY -.83998  
 -.83206  
 .00396

CL .15527  
 .32078  
 .08275

CD .04760  
 .05581  
 .00411

CLM -.13366  
 -.16206  
 -.01420

CY .01119  
 .01288  
 .00084

CYN -.00165  
 -.00151  
 .00007

CBL .00002  
 .00043  
 .00021

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT .00000

IORB 8.00000  
 8.00000  
 .00000

DX 20.00000  
 20.00000  
 .00000

MACH .59109  
 .59091  
 -.00009

DY -.87982  
 -.77306  
 .05338

CL .18382  
 .35363  
 .08491

CD .04949  
 .05879  
 .00465

CLM -.18722  
 -.21752  
 -.01515

CY .01161  
 .01556  
 .00197

CYN -.00273  
 -.00292  
 -.00010

CBL .00096  
 .00081  
 -.00007

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT .00000

IORB 8.00000  
 8.00000  
 .00000

DX 20.00000  
 20.00000  
 .00000

MACH .59145  
 .59106  
 -.00020

DY -.82857  
 -.78742  
 .02058

CL .20581  
 .37328  
 .03373

CD .05047  
 .06041  
 .00497

CLM -.21453  
 -.24264  
 -.01405

CY .01200  
 .01493  
 .00147

CYN -.00278  
 -.00282  
 -.00002

CBL .00033  
 .00028  
 -.00002

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT .00000

IORB 8.00000  
 8.00000  
 .00000

DX 20.00000  
 20.00000  
 .00000

MACH .59044  
 .59121  
 .00039

DY -.87139  
 -.82092  
 .02523

CL .20322  
 .37291  
 .08485

CD .05040  
 .06030  
 .00495

CLM -.21834  
 -.24725  
 -.01445

CY .01199  
 .01427  
 .00114

CYN -.00291  
 -.00274  
 .00008

CBL .00079  
 .00086  
 .00004

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = .000 DX = .000  
 SCALE = .0125 .000000 MACH = 3.31 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 3.500  
 ALPHAC 1ORB CLM CY CYN CBL  
 2.000 8.00000 .11635 .01142 -.00103  
 4.000 8.00000 .14668 .01018 -.00081  
 GRADIENT .00000 .07926 .00326 -.00062 .00011

REFERENCE DATA

DZ = 7.500  
 ALPHAC 1ORB CLM CY CYN CBL  
 2.000 8.00000 .12840 .04810  
 4.000 8.00000 .28738 .05528  
 GRADIENT .00000 .07949 .00359

PARAMETRIC DATA

DZ = 10.000  
 ALPHAC 1ORB CLM CY CYN CBL  
 2.000 8.00000 .13235 .04844  
 4.000 8.00000 .29109 .05613  
 GRADIENT .00000 .07937 .00385

REFERENCE DATA

DZ = 15.000  
 ALPHAC 1ORB CLM CY CYN CBL  
 2.000 8.00000 .14975 .04957  
 4.000 8.00000 .30915 .05768  
 GRADIENT .00000 .07970 .00406

PARAMETRIC DATA

DZ = 30.000  
 ALPHAC 1ORB CLM CY CYN CBL  
 2.000 8.00000 .17642 .05028  
 4.000 8.00000 .34235 .05972  
 GRADIENT .00000 .08296 .00472

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(UNHX27) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

IORB  
 8.00000  
 8.00000  
 .00000

DX .00000 MACH .58607 DY .06827 CL .20103 CD .05064  
 .00000 .58557 -.00121 .36729 .06025  
 .00000 -.00025 -.03474 .08313 .00481

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

IORB  
 8.00000  
 8.00000  
 .00000

DX .00000 MACH .58565 DY .05736 CL .19667 CD .05053  
 .00000 .58536 .07269 .37330 .06068  
 .00000 -.00015 .00767 .08731 .00508

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

CLM .22877 CYN .00071  
 -.22877 .01297 -.00281  
 -.26062 .01408 -.00240  
 -.01593 .00056 .00021 .00011

CLM .23161 CBL .00054  
 -.23161 .01317 -.00289  
 -.26405 .01443 -.00250  
 -.01622 .00063 .00019 .00008

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(UNHX28) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC  
 2.000  
 4.000  
 GRADIENT

IORB  
 6.00000  
 6.00000  
 .00000

DX 10.00000 MACH .58687 DY .01230 CL .14405 CD .04857  
 10.00000 .58723 .09360 .31189 .05784  
 .00000 .00018 .05295 .08392 .00464

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

CLM .17410 CBL .00022  
 -.17410 .01118 -.00173  
 -.20581 .01292 -.00154  
 -.01586 .00087 .00009 .00013

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC  
 2.000  
 4.000  
 GRADIENT

IORB  
 6.00000  
 6.00000  
 .00000

DX 10.00000 MACH .58766 DY .02369 CL .16089 CD .05001  
 10.00000 .58809 .03178 .32618 .05885  
 .00000 .00022 .00404 .08264 .00442

CLM .19444 CBL .00022  
 -.19444 .01083 -.00146  
 -.22447 .01246 -.00121 .00031  
 -.01501 .00082 .00012 .00005

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(UNHX28) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 JORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	6.00000	10.00000	.58624	-.00874	.16971	.05029	-.20397	.00979	-.00115	.00015
2.000	6.00000	10.00000	.58656	.05953	.33064	.05940	-.23247	.01163	-.00095	.00047
4.000	.00000	.00000	.00016	.03414	.08046	.00456	-.01425	.00092	.00010	.00016
GRADIENT										

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	6.00000	10.00000	.58701	.08814	.18158	.05089	-.21727	.01062	-.00101	.00007
2.000	6.00000	10.00000	.58720	.02589	.34148	.06019	-.24514	.01080	-.00067	.00048
4.000	.00000	.00000	.00010	-.03113	.07995	.00465	-.01393	.00009	.00017	.00021
GRADIENT										

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	6.00000	10.00000	.58688	.05832	.19842	.05092	-.23814	.01148	-.00217	.00081
2.000	6.00000	10.00000	.58711	.06636	.36468	.06133	-.26590	.01354	-.00193	.00064
4.000	.00000	.00000	.00012	.00402	.08313	.00521	-.01388	.00103	.00012	-.00008
GRADIENT										

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	6.00000	10.00000	.58645	-.01492	.20986	.05104	-.24617	.01230	-.00264	.00093
2.000	6.00000	10.00000	.58643	.07284	.27668	.06170	-.27337	.01450	-.00249	.00118
4.000	.00000	.00000	-.00001	.04398	.08341	.00533	-.01360	.00110	.00008	.00013
GRADIENT										

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	6.00000	10.00000	.58633	.05297	.21651	.05122	-.24889	.01287	-.00273	.00072
2.000	6.00000	10.00000	.58669	.02953	.38688	.06172	-.27487	.01430	-.00238	.00109
4.000	.00000	.00000	.00018	-.01172	.08519	.00525	-.01299	.00071	.00017	.00019
GRADIENT										



ARC 14-120(CA238) 747/1 AT1 03S1 (CARRIER DATA)

(UNHX29) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	10.00000	.58880	.05013	.20265	.05083	-.23114	.01247	-.00262	.00054
	4.000	8.00000	10.00000	.58936	.11899	.37063	.06075	-.25919	.01490	-.00252	.00070
	GRADIENT	.00000	.00000	.00028	.02943	.08399	.00496	-.01403	.00122	.00005	.00008

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	10.00000	.58687	.05102	.20513	.05061	-.23353	.01233	-.00268	.00094
	4.000	8.00000	10.00000	.58724	.07609	.37211	.06075	-.26181	.01391	-.00234	.00132
	GRADIENT	.00000	.00000	.00019	.01254	.08349	.00507	-.01414	.00079	.00017	.00019

ARC 14-120(CA238) 747/1 AT1 03S1 (CARRIER DATA)

(UNHX30) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	20.00000	.58488	.02299	.12627	.04521	-.11313	.01115	-.00188	.00125
	4.000	8.00000	20.00000	.58554	.04884	.29472	.05344	-.13389	.01389	-.00183	.00146
	GRADIENT	.00000	.00000	.00033	.01293	.08422	.00411	-.01038	.00137	.00002	.00011

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	20.00000	.58582	.03582	.14310	.04676	-.13710	.01084	-.00165	.00091
	4.000	8.00000	20.00000	.58609	.03591	.30726	.05505	-.15953	.01315	-.00154	.00112
	GRADIENT	.00000	.00000	.00013	.00004	.08208	.00414	-.01122	.00116	.00006	.00010

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 03S1 (CARRIER DATA)

(UNHX30) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	2.000	8.00000	20.00000	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.58700	.05242	.15653		.58700	.04799				.01069	-.00150	.00070
	4.000	.58651	.02600	.31620		.58651	.05620				.01268	-.00136	.00083
	GRADIENT	.00000	-.00024	.07983		-.00024	.00410				.00099	.00007	.00006

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	2.000	8.00000	20.00000	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.58572	.03261	.16416		.58572	.04846				.01012	-.00126	.00049
	4.000	.58660	.02195	.32639		.58660	.05737				.01206	-.00108	.00088
	GRADIENT	.00000	.00044	.08111		.00044	.00446				.00097	.00009	.00020

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	2.000	8.00000	20.00000	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.58806	.04541	.18839		.58806	.04961				.01042	-.00185	.00065
	4.000	.58578	.08552	.35635		.58578	.05953				.01301	-.00173	.00130
	GRADIENT	.00000	-.00114	.08398		-.00114	.00496				.00130	.00006	.00032

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	2.000	8.00000	20.00000	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.58763	.06524	.21087		.58763	.05079				.01205	-.00260	.00051
	4.000	.58716	.09032	.36611		.58716	.06020				.01374	-.00238	.00101
	GRADIENT	.00000	-.00024	.07762		-.00024	.00470				.00085	.00011	.00025

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	2.000	8.00000	20.00000	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.58729	-.00144	.20731		.58729	.05050				.01193	-.00271	.00109
	4.000	.58764	.06742	.37673		.58764	.06062				.01468	-.00257	.00095
	GRADIENT	.00000	.03443	.08471		.00017	.00506				.00137	.00007	.00007





ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

(UNHX31) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	20.00000	.58719	.09486	.21576	.05161	-.24849	.01193	-.00253	.00040
4.000	6.00000	20.00000	.58694	.06728	.38199	.06158	-.27549	.01541	-.00262	.00093
GRADIENT	.00000	.00000	-.00012	-.01379	.08311	.00499	-.01350	.00174	-.00004	.00026

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

DZ = 50.000

ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	20.00000	.58699	.02027	.21487	.05146	-.25013	.01270	-.00267	.00076
4.000	6.00000	20.00000	.58709	.02391	.38497	.06159	-.27699	.01455	-.00244	.00108
GRADIENT	.00000	.00000	.00005	.00182	.08505	.00507	-.01343	.00093	.00011	.00016

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

(UNHX34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	.00000	.58780	-.07105	.13385	.04996	-.17653	.01409	-.00299	.00048
4.000	6.00000	.00000	.58730	-.01686	.29325	.05814	-.21160	.01557	-.00275	.00049
GRADIENT	.00000	.00000	-.00025	.02710	.07970	.00409	-.01753	.00074	.00012	.00001

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DZ = 7.500

ALPHAC	1ORB	DX	MACH	DY	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	.00000	.58691	-.03982	.14710	.05060	-.19315	.01321	-.00263	.00050
4.000	6.00000	.00000	.58751	-.04258	.30800	.05900	-.22717	.01406	-.00219	.00072
GRADIENT	.00000	.00000	.00030	-.00138	.08045	.00420	-.01701	.00042	.00022	.00011

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DATE 22 MAR 76

TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(UNHX34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 6.00000  
 .00000

DX  
 .00000  
 .00000  
 .00000  
 .00000

MACH  
 .58688  
 .58670  
 .00009

DY  
 -.03324  
 -.06070  
 -.01373

CL  
 .15132  
 .31383  
 .08126

CD  
 .05069  
 .05952  
 .00442

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 6.00000  
 .00000

DX  
 .00000  
 .00000  
 .00000  
 .00000

MACH  
 .58673  
 .58727  
 .00027

DY  
 -.05303  
 -.07127  
 -.00912

CL  
 .16680  
 .32977  
 .08149

CD  
 .05121  
 .06031  
 .00455

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 6.00000  
 .00000

DX  
 .00000  
 .00000  
 .00000  
 .00000

MACH  
 .58733  
 .58712  
 .00010

DY  
 -.03707  
 -.08604  
 -.02449

CL  
 .19004  
 .35766  
 .08381

CD  
 .05154  
 .06121  
 .00483

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 6.00000  
 .00000

DX  
 .00000  
 .00000  
 .00000  
 .00000

MACH  
 .58710  
 .58749  
 .00019

DY  
 -.05594  
 .00247  
 .02921

CL  
 .20728  
 .57494  
 .08383

CD  
 .05139  
 .06127  
 .00494

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 6.00000  
 .00000

DX  
 .00000  
 .00000  
 .00000  
 .00000

MACH  
 .58804  
 .58759  
 -.00022

DY  
 -.01817  
 -.04602  
 -.01392

CL  
 .20776  
 .37950  
 .08587

CD  
 .05114  
 .06109  
 .00497

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 1ORB = 6.000 DX = .000  
 DY = .000 MACH = .600

CY  
 .01255  
 .01370  
 .00058

CY  
 -.00248  
 -.00200  
 .00024

CBL  
 .00047  
 .00067  
 .00010

CLM  
 -.20062  
 -.23464  
 -.01701

CY  
 .01246  
 .01381  
 .00068

CY  
 -.00200  
 -.00155  
 .00022

CBL  
 .00007  
 .00064  
 .00029

CLM  
 -.21292  
 -.24554  
 -.01631

CY  
 .01363  
 .01414  
 .00026

CY  
 -.00273  
 -.00207  
 .00033

CBL  
 .00048  
 .00037  
 -.00006

CLM  
 -.23290  
 -.26522  
 -.01616

CY  
 .01315  
 .01472  
 .00079

CY  
 -.00300  
 -.00267  
 .00017

CBL  
 .00076  
 .00090  
 .00007

CLM  
 -.24186  
 -.27316  
 -.01565

CY  
 .01317  
 .01491  
 .00087

CY  
 -.00289  
 -.00261  
 .00014

CBL  
 .00081  
 .00130  
 .00025

CLM  
 -.24362  
 -.27530  
 -.01584

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA)

(UNHY10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .500

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	.000J0	.59503	-.01267	.07905	.04389	-.05220	.01377	-.00307	-.00061
	4.000	8.00000	.00000	.59130	-.01020	.23900	.04956	-.08870	.01529	-.00286	.00027
	GRADIENT	.00000	.00000	-.00187	.00124	.07998	.00284	-.01825	.00076	.00011	.00044

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	.00000	.59631	-.02880	.09800	.04524	-.08173	.01351	-.00315	.00019
	4.000	8.00000	.00000	.59506	-.04969	.25908	.05194	-.12009	.01513	-.00279	.00076
	GRADIENT	.00000	.00000	-.00063	-.01044	.08054	.00335	-.01918	.00081	.00018	.00028

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	.00000	.59752	-.03048	.11109	.04616	-.10014	.01356	-.00312	.00082
	4.000	8.00000	.00000	.59802	-.07336	.27278	.05352	-.13970	.01522	-.00263	.00117
	GRADIENT	.00000	.00000	.00025	-.02144	.08084	.00368	-.01978	.00083	.00024	.00018

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	.00000	.59633	-.02992	.12928	.04745	-.12943	.01187	-.00282	.00062
	4.000	8.00000	.00000	.59726	-.07123	.29097	.05536	-.17018	.01368	-.00240	.00064
	GRADIENT	.00000	.00000	.00046	-.02066	.08084	.00396	-.02038	.00091	.00021	.00001

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	.00000	.59637	-.08807	.17058	.04956	-.18480	.01233	-.00286	.00039
	4.000	8.00000	.00000	.59584	-.11959	.33222	.05838	-.22163	.01365	-.00265	.00068
	GRADIENT	.00000	.00000	-.00026	-.01576	.08082	.00441	-.01841	.00066	.00011	.00015

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (UNHY10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBI
	2.000	8.00000	.00000	.59620	-.10677	.19356	.05036	-.20999	.01234	-.00279	.00051
	4.000	8.00000	.00000	.59522	-.19602	.35669	.06006	-.24421	.01393	-.00258	.00051
	GRADIENT	.00000	.00000	-.00049	-.04463	.08156	.00485	-.01711	.00080	.00010	-.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 10RB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
	2.000	8.00000	.00000	.59459	-.01444	.19706	.05054	-.21528	.01150	-.00272	.00056
	4.000	8.00000	.00000	.59441	-.12143	.36496	.06027	-.24984	.01388	-.00264	.00080
	GRADIENT	.00000	.00000	-.00009	-.05349	.08395	.00486	-.01728	.00119	.00004	.00012

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (UNHY13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
	2.000	6.00000	.00000	.59450	-.03811	.11831	.04765	-.12782	.01048	-.00137	.00037
	4.000	6.00000	.00000	.59354	-.06523	.27678	.05508	-.16208	.01162	-.00116	.00080
	GRADIENT	.00000	.00000	-.00048	-.01356	.07923	.00371	-.01713	.00057	.00011	.00021

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 10RB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
	2.000	6.00000	.00000	.59261	.01798	.13088	.04873	-.14855	.00927	-.00112	.00071
	4.000	6.00000	.00000	.59217	-.04063	.29320	.05682	-.18319	.01093	-.00093	.00397
	GRADIENT	.00000	.00000	-.00022	-.02931	.08116	.00404	-.01732	.00083	.00009	.00013

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

( UNHY13 ) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	IORB	DY	MACH	DX	CL	CLM	CY	CYN	CBL
	2.000	6.00000	.00000	.59174	-.01436	.14148	-.15968	.00905	-.00117	.00057
	4.000	6.00000	.00000	.59204	-.07557	.30254	-.19440	.01102	-.00101	.00069
	GRADIENT	.00000	.00000	.00015	-.03061	.08053	-.01736	.00098	.00008	.00006

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	IORB	DY	MACH	DX	CL	CLM	CY	CYN	CBL
	2.000	6.00000	.00000	.59103	.07807	.15116	-.17929	.00943	-.00128	.00049
	4.000	6.00000	.00000	.59103	-.01760	.31570	-.21262	.01123	-.00105	.00065
	GRADIENT	.00000	.00000	.00000	-.04784	.08227	-.01667	.00090	.00012	.00008

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	IORB	DY	MACH	DX	CL	CLM	CY	CYN	CBL
	2.000	6.00000	.00000	.59046	.00985	.18320	-.21208	.01105	-.00201	.00032
	4.000	6.00000	.00000	.59064	-.08351	.34302	-.24369	.01343	-.00203	.00073
	GRADIENT	.00000	.00000	.00009	-.04668	.07991	-.01581	.00119	-.00001	.00020

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	IORB	DY	MACH	DX	CL	CLM	CY	CYN	CBL
	2.000	6.00000	.00000	.59085	.04067	.20250	-.22643	.01146	-.00223	.00013
	4.000	6.00000	.00000	.59107	-.08489	.36447	-.25782	.01354	-.00221	.00070
	GRADIENT	.00000	.00000	.00011	-.06278	.08098	-.01569	.00104	.00001	.00029

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	IORB	DY	MACH	DX	CL	CLM	CY	CYN	CBL
	2.000	6.00000	.00000	.59144	-.17655	.20599	-.23091	.01134	-.00225	.00072
	4.000	6.00000	.00000	.59135	-.17839	.37161	-.26194	.01387	-.00228	.00097
	GRADIENT	.00000	.00000	-.00004	-.00092	.08281	-.01551	.00127	-.00002	.00012

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(UNHY18) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .500

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 .00000

DY  
 10.00000  
 10.00000  
 .00000

MACH  
 .59076  
 .59178  
 .00051

DX  
 -.15123  
 -.09423  
 .02850

CL  
 .13000  
 .28845  
 .07922

CD  
 .04624  
 .05482  
 .00429

CLM  
 -.14709  
 -.17933  
 -.01612

CY  
 .00712  
 .00505  
 -.00104

CYN  
 -.00777  
 -.00721  
 .00028

CBI  
 .00596  
 .00726  
 .00065

DZ = 7.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 .00000

DY  
 10.00000  
 10.00000  
 .00000

MACH  
 .59084  
 .58980  
 -.00052

DX  
 -.21204  
 -.05023  
 .08091

CL  
 .14839  
 .30930  
 .08046

CD  
 .04782  
 .05631  
 .00424

CLM  
 -.16225  
 -.19619  
 -.01697

CY  
 .00790  
 .00549  
 -.00121

CYN  
 -.00695  
 -.00534  
 .00080

CBL  
 .00545  
 .00625  
 .00040

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 .00000

DY  
 10.00000  
 10.00000  
 .00000

MACH  
 .59145  
 .59157  
 .00006

DX  
 -.18453  
 -.08798  
 .04828

CL  
 .15590  
 .31659  
 .08034

CD  
 .04845  
 .05739  
 .00447

CLM  
 -.17203  
 -.20550  
 -.01674

CY  
 .00829  
 .00496  
 -.00166

CYN  
 -.00618  
 -.00433  
 .00093

CBL  
 .00508  
 .00527  
 .00009

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 .00000

DY  
 10.00000  
 10.00000  
 .00000

MACH  
 .59100  
 .59135  
 .00017

DX  
 -.22222  
 -.08119  
 .07051

CL  
 .16899  
 .33165  
 .08133

CD  
 .04942  
 .05842  
 .00450

CLM  
 -.18696  
 -.22077  
 -.01690

CY  
 .00614  
 .00335  
 -.00139

CYN  
 -.00447  
 -.00223  
 .00112

CBL  
 .00391  
 .00457  
 .00033

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

1ORB  
 6.00000  
 6.00000  
 .00000

DY  
 10.00000  
 10.00000  
 .00000

MACH  
 .59185  
 .59194  
 .00005

DX  
 -.18323  
 -.12907  
 .02708

CL  
 .18923  
 .35600  
 .08338

CD  
 .05052  
 .06059  
 .00504

CLM  
 -.21737  
 -.24867  
 -.01565

CY  
 .00280  
 .00042  
 -.00119

CYN  
 .00035  
 .00206  
 .00085

CBL  
 .00176  
 .00186  
 .00005

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 ATI 02S1 (CARRIER DATA)

(UNHY18) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

DZ = 45.000  
 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	2.000	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBI
2.000	6.00000	6.00000	10.00000	.59090	-.07926	.20623	.05115	-.23024	.00438	.00036	.00076
4.000	6.00000	6.00000	10.00000	.59168	-.06555	.37541	.06119	-.26085	.00431	.00119	.00117
GRADIENT	.00000	.00000	.00000	.00039	-.00364	.08456	.00502	-.01531	-.00003	.00042	.00021

DZ = 50.000  
 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	2.000	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
2.000	6.00000	6.00000	10.00000	.59017	-.04244	.20971	.05087	-.23167	.00600	-.00023	.00128
4.000	6.00000	6.00000	10.00000	.59073	-.10545	.37967	.06157	-.26171	.00618	.00050	.00105
GRADIENT	.00000	.00000	.00000	.00028	-.03151	.08498	.00535	-.01502	.00009	.00036	-.00011

ARC 14-120(CA238) 747/1 ATI 02S1 (CARRIER DATA)

(UNHY19) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

DZ = 3.500  
 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	2.000	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
2.000	8.00000	8.00000	10.00000	.59043	-.32979	.08946	.04368	-.10092	.00531	-.00790	.00649
4.000	8.00000	8.00000	10.00000	.59118	-.20066	.25310	.05171	-.13380	.00212	-.00553	.00819
GRADIENT	.00000	.00000	.00000	.00037	.06457	.08182	.00402	-.01644	-.00160	.00119	.00085

DZ = 7.500  
 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	2.000	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
2.000	8.00000	8.00000	10.00000	.59062	-.21857	.11295	.04503	-.11601	.00443	-.00613	.00615
4.000	8.00000	8.00000	10.00000	.59132	-.12611	.27329	.05303	-.15061	.00107	-.00361	.00728
GRADIENT	.00000	.00000	.00000	.00035	.04623	.08017	.00400	-.01730	-.00168	.00126	.00057

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 TORB = 6.000  
 DY = 10.000

STAB = 5.000  
 ELEVON = 5.000  
 DX = .000  
 MACH = .600

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 TORB = 8.000  
 DY = 10.000

STAB = 5.000  
 ELEVON = 5.000  
 DX = .000  
 MACH = .600

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 TORB = 10.000  
 DY = 10.000

STAB = 5.000  
 ELEVON = 5.000  
 DX = .000  
 MACH = .600







TABULATED SOURCE DATA - CA238

DATE 22 MAR 76

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(UNHY27) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBI
	2.000	8.00000	.00000	.58603	-.08663	.20103	.05063	-.22873	.01302	-.00284	.00071
	4.000	8.00000	.00000	.58548	-.16527	.36720	.06024	-.26065	.01405	-.00239	.00094
	GRADIENT	.00000	.00000	-.00027	-.03932	.08309	.00480	-.01596	.00052	.00022	.00011

DZ = 50.000	ALPHAC	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBI
	2.000	8.00000	.00000	.58563	-.10954	.19857	.05052	-.23158	.01321	-.00290	.00053
	4.000	8.00000	.00000	.58531	-.16345	.37338	.06068	-.26410	.01450	-.00252	.00067
	GRADIENT	.00000	.00000	-.00016	-.02695	.08740	.00508	-.01626	.00064	.00019	.00007

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBI
	2.000	6.00000	10.00000	.58674	-.05386	.13882	.04866	-.18897	.00469	-.00523	.00480
	4.000	6.00000	10.00000	.58735	-.08359	.30150	.05759	-.22181	.00307	-.00474	.00621
	GRADIENT	.00000	.00000	.00030	-.01187	.08134	.00447	-.01642	-.00081	.00024	.00070

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	10RB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBI
	2.000	6.00000	10.00000	.58723	-.11877	.15775	.04982	-.20139	.00527	-.00412	.00401
	4.000	6.00000	10.00000	.58724	-.05162	.31716	.05865	-.23460	.00285	-.00267	.00529
	GRADIENT	.00000	.00000	.00001	.03358	.07970	.00442	-.01660	-.00121	.00072	.00064

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 10RB = 8.000 DX = .000  
 DY = .000 MACH = .600

(UNHY32) ( 17 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 10RB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

ARC 14-120(CA23B) 74771 AT1 0351 (CARRIER DATA)

(UNHY32) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.6400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

DZ = 10.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT

IORB 6.00000  
 6.00000  
 .00000

DY 10.00000  
 10.00000  
 .00000

MACH .58727  
 .58739  
 .00006

DX -.15591  
 -.04941  
 .05325

CL .16112  
 .32064  
 .07976

CD .05000  
 .05919  
 .00459

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

CLM -.20900  
 -.24018  
 -.01559

CY .00520  
 .00236  
 -.00142

CYN -.00332  
 -.00174  
 .00079

CBL .00398  
 .00474  
 .00038

DZ = 15.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT

IORB 6.00000  
 6.00000  
 .00000

DY 10.00000  
 10.00000  
 .00000

MACH .58721  
 .58776  
 .00027

DX -.19551  
 -.08464  
 .05543

CL .17405  
 .33561  
 .08078

CD .05052  
 .06001  
 .00475

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

CLM -.22111  
 -.25172  
 -.01530

CY .00429  
 .00176  
 -.00126

CYN -.00185  
 -.00018  
 .00084

CBL .00304  
 .00318  
 .00007

DZ = 30.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT

IORB 6.00000  
 6.00000  
 .00000

DY 10.00000  
 10.00000  
 .00000

MACH .58737  
 .58771  
 .00017

DX -.18137  
 -.13226  
 .02455

CL .19787  
 .36178  
 .08196

CD .05120  
 .06108  
 .00494

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

CLM -.23615  
 -.26772  
 -.01578

CY .00547  
 .00332  
 -.00107

CYN -.00011  
 .00140  
 .00076

CBL .00156  
 .00176  
 .00010

DZ = 45.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT

IORB 6.00000  
 6.00000  
 .00000

DY 10.00000  
 10.00000  
 .00000

MACH .58761  
 .58806  
 .00022

DX -.06798  
 -.11714  
 -.02458

CL .21062  
 .37582  
 .08260

CD .05110  
 .06151  
 .00521

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

CLM -.24385  
 -.27342  
 -.01478

CY .00726  
 .00735  
 .00004

CYN -.00060  
 .00019  
 .00039

CBL .00130  
 .00155  
 .00012

DZ = 50.000  
 ALPHAC 2.000  
 4.000  
 GRADIENT

IORB 6.00000  
 6.00000  
 .00000

DY 10.00000  
 10.00000  
 .00000

MACH .58823  
 .58899  
 .00038

DX -.02004  
 -.04956  
 -.01476

CL .21650  
 .37813  
 .08080

CD .05148  
 .06146  
 .00499

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

CLM -.24615  
 -.27558  
 -.01471

CY .00875  
 .00958  
 -.00008

CYN -.00092  
 -.00021  
 .00035

CBL .00081  
 .00149  
 .00034

ARC 14-120(CA23B) 747/1 ATI 03SI (CARRIER DATA)

(UNHY33) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
3.500	8.00000	8.00000	10.00000	.58990	.18113	.11731	.04519	-.14517	.00403	-.00571	.00531
	2.000	8.00000	10.00000	.58844	-.15384	.27005	.05360	-.17998	.00006	-.00350	.00691
	4.000	.00000	.00000	-.00073	-.16749	.07637	.00420	-.01741	-.00199	.00111	.00080
	GRADIENT	.00000	.00000								

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
7.500	8.00000	8.00000	10.00000	.58945	-.04610	.12541	.04656	-.15855	.00282	-.00390	.00523
	2.000	8.00000	10.00000	.58882	-.13309	.28391	.05490	-.19237	-.00097	-.00162	.00606
	4.000	.00000	.00000	-.00031	-.04349	.07925	.00417	-.01691	-.00189	.00114	.00042
	GRADIENT	.00000	.00000								

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
10.000	8.00000	8.00000	10.00000	.58936	-.20967	.13053	.04747	-.16626	.00223	-.00281	.00539
	2.000	8.00000	10.00000	.58918	-.11484	.29256	.05573	-.19963	-.00159	-.00036	.00569
	4.000	.00000	.00000	-.00009	.04741	.08101	.00413	-.01668	-.00191	.00122	.00015
	GRADIENT	.00000	.00000								

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
15.000	8.00000	8.00000	10.00000	.58882	-.19234	.14811	.04845	-.18463	.00153	-.00115	.00375
	2.000	8.00000	10.00000	.58908	-.11584	.31006	.05725	-.21721	-.00280	.00147	.00394
	4.000	.00000	.00000	.00013	.03825	.08098	.00440	-.01629	-.00216	.00131	.00010
	GRADIENT	.00000	.00000								

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
30.000	8.00000	8.00000	10.00000	.58932	-.19577	.17931	.04993	-.21605	.00118	-.00148	.00181
	2.000	8.00000	10.00000	.58981	-.16472	.34583	.05981	-.24795	-.00099	.00339	.00174
	4.000	.00000	.00000	-.00018	.01552	.08326	.00494	-.01595	-.00108	.00095	-.00004
	GRADIENT	.00000	.00000								

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ARC 14-120(CA238) 747/1 ATI 0351 (CARRIER DATA)

(UNHY33) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC 2.000  
 GRADIENT 4.000

IORB 8.00000  
 GRADIENT .00000

DY 10.00000  
 MACH .58684  
 GRADIENT .00000

DX -.17007  
 MACH .58661  
 GRADIENT -.00012

CL .20183  
 CLM -.23124  
 CLM -.26245  
 CLM -.01561

CD .05110  
 CD .06099  
 CD .00495

CY .00538  
 CY .00554  
 CY .00008

CYN .00041  
 CYN -.00117  
 CYN .00038

CBL .00103  
 CBL .00160  
 CBL .00028

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 IORB = 8.000  
 DY = 10.000

STAB = 5.000  
 ELEVON = .000  
 DX = .000  
 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC 2.000  
 GRADIENT 4.000

IORB 8.00000  
 GRADIENT .00000

DY 10.00000  
 MACH .58784  
 GRADIENT .00000

DX -.10670  
 MACH .58733  
 GRADIENT -.03101

CL .20223  
 CLM -.23364  
 CLM -.26453  
 CLM -.01544

CD .05077  
 CD .06073  
 CD .00498

CY .00789  
 CY .00735  
 CY -.00027

CYN -.00037  
 CYN .00046  
 CYN .00042

CBL .00114  
 CBL .00181  
 CBL .00033

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC 2.000  
 GRADIENT 4.000

IORB 6.00000  
 GRADIENT .00000

DY .00000  
 MACH .58779  
 GRADIENT .00000

DX .16221  
 MACH .58730  
 GRADIENT -.08049

CL .13412  
 CLM -.17655  
 CLM -.21161  
 CLM -.01753

CD .04993  
 CD .05814  
 CD .00411

CY .01397  
 CY .01555  
 CY .00079

CYN -.00298  
 CYN -.00275  
 CYN .00011

CBL .00050  
 CBL .00050  
 CBL .00000

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 IORB = 6.000  
 DY = .000

STAB = 5.000  
 ELEVON = .000  
 DX = .000  
 MACH = .600

ARC 14-120(CA238) 747/1 ATI 0351 (CARRIER DATA)

(UNHY34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC 2.000  
 GRADIENT 4.000

IORB 6.00000  
 GRADIENT .00000

DY .00000  
 MACH .58691  
 GRADIENT .00000

DX .05405  
 MACH .58751  
 GRADIENT .00030

CL .14724  
 CLM -.19319  
 CLM -.22720  
 CLM -.01701

CD .05060  
 CD .05900  
 CD .00420

CY .01317  
 CY .01401  
 CY .00042

CYN -.00263  
 CYN -.00219  
 CYN .00022

CBL .00051  
 CBL .00074  
 CBL .00011

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 IORB = 6.000  
 DY = .000

STAB = 5.000  
 ELEVON = .000  
 DX = .000  
 MACH = .600

( UNHY34 ) ( 17 OCT 75 )

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC IORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = .000000 MACH = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
6.00000	.00000	.58688	.05454	.15147	.05068	-.20068	.01250	-.00247	.00047
6.00000	.00000	.58671	-.03800	.31380	.05952	-.23469	.01364	-.00200	.00069
.00000	.00000	-.00009	-.04627	.08116	.00442	-.01701	.00057	.00024	.00011

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
6.00000	.00000	.58673	.05004	.16694	.05120	-.21299	.01241	-.00199	.00008
6.00000	.00000	.58727	-.05659	.32974	.06030	-.24559	.01375	-.00155	.00066
.00000	.00000	.00027	-.05332	.08140	.00455	-.01630	.00067	.00022	.00029

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
6.00000	.00000	.58732	.01989	.19009	.05154	-.23293	.01359	-.00271	.00048
6.00000	.00000	.58712	-.07747	.35764	.06120	-.26524	.01405	-.00204	.00038
.00000	.00000	-.00010	-.04868	.08378	.00483	-.01616	.00023	.00034	-.00005

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
6.00000	.00000	.58712	-.12500	.20728	.05139	-.24181	.01313	-.00299	.00076
6.00000	.00000	.58751	-.15488	.37492	.06127	-.27316	.01473	-.00267	.00089
.00000	.00000	.00019	-.01494	.08382	.00494	-.01568	.00080	.00016	.00006

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

ORB	DY	MACH	DX	CL	CD	CLM	CY	CYN	CBL
6.00000	.00000	.58807	-.14372	.20761	.05114	-.24353	.01317	-.00289	.00081
6.00000	.00000	.58762	-.16752	.37933	.06108	-.27532	.01490	-.00260	.00131
.00000	.00000	-.00022	-.01190	.08586	.00497	-.01589	.00087	.00014	.00025

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(UNHM40) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 MACH .60000 IORB 3.82899 DX .00100 DY .06542 CL 15716 CD .05123  
 .60000 .60000 .06036 .06946 .31648 .05929  
 .00000 .00000 .02968 .00202 .07966 .00403  
 GRADIENT  
 ALPHA AC 2.000 CLM -.19230  
 4.000 .01594 -CYN -.00371 CBI -.00001  
 GRADIENT .00000 .01794 -.00352 .00031  
 .00000 .00100 .00010 .00016

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 MACH .60000 IORB 3.88061 DX -.05171 DY .06605 CL 16132 CD .05130  
 .60000 .60000 .06693 .03934 .32432 .05969  
 .00000 .00000 .00761 -.01336 .08150 .00420  
 GRADIENT  
 ALPHA AC 2.000 CLM -.20111  
 4.000 .01524 CYN -.00369 CBL .00033  
 GRADIENT .00000 .01776 -.00351 .00044  
 .00000 .00126 .00009 .00006

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 MACH .60000 IORB 3.89369 DX -.03693 DY .06764 CL 16643 CD .05132  
 .60000 .60000 .09867 .03278 .33244 .06014  
 .00000 .00000 .00324 -.03087 .08301 .00441  
 GRADIENT  
 ALPHA AC 2.000 CLM -.20933  
 4.000 .01596 CYN -.00380 CBL .00058  
 GRADIENT .00000 .01776 -.00348 .00028  
 .00000 .00090 .00016 -.00015

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 MACH .60000 IORB 3.86868 DX -.05021 DY .00233 CL 18609 CD .05164  
 .60000 .60000 .03167 .02863 .34492 .06070  
 .00000 .00000 .00927 .01315 .07942 .00453  
 GRADIENT  
 ALPHA AC 2.000 CLM -.22213  
 4.000 .01578 CYN -.00363 CBL .00033  
 GRADIENT .00000 .01703 -.00324 .00055  
 .00000 .00062 .00019 .00011

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 MACH .60000 IORB 3.91759 DX .06702 DY .08608 CL 20035 CD .05174  
 .60000 .60000 .10134 .00038 .36455 .06143  
 .00000 .00000 .00400 -.08418 .08210 .00485  
 GRADIENT  
 ALPHA AC 2.000 CLM -.23956  
 4.000 .01431 CYN -.00304 CBL .00076  
 GRADIENT .00000 .01468 -.00238 .00074  
 .00000 .00019 .00033 -.00001



ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (UNHM40) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 4.000 DX = .000  
DY = .000 MACH = .600

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
ALPHAC  
MACH .60000  
TORB 3.90866  
DX -1.14608  
DY .05138  
CL .20494  
CD .05158  
CLM -.24581  
CYN -.00286  
CBI .00002  
GRADIENT .00000  
TORB 3.89777  
DX -1.18392  
DY .00599  
CL .38112  
CD .06182  
CLM -.27937  
CYN -.00244  
CBI .00056  
GRADIENT .00000  
TORB -.00544  
DX -.01692  
DY -.02269  
CL .08809  
CD .00512  
CLM -.01678  
CYN .00021  
CBI .00027

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
ALPHAC  
MACH .60000  
TORB 3.89561  
DX -.25222  
DY .01755  
CL .20733  
CD .05155  
CLM -.24769  
CYN -.00282  
CBI .00039  
GRADIENT .00000  
TORB 3.88339  
DX -.19897  
DY -.00239  
CL .38679  
CD .06194  
CLM -.28172  
CYN -.00253  
CBI .00051  
GRADIENT .00000  
TORB -.00611  
DX .02662  
DY -.00997  
CL .08973  
CD .00519  
CLM -.01702  
CYN .00014  
CBI .00045

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (UNHM41) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 4.000 DX = .000  
DY = .000 MACH = .500

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
ALPHAC  
MACH .50000  
TORB 4.00537  
DX -.08435  
DY -.15589  
CL .14508  
CD .04961  
CLM -.17970  
CYN -.00343  
CBI .00009  
GRADIENT .00000  
TORB 3.94275  
DX -.06208  
DY -.15274  
CL .31153  
CD .05826  
CLM -.21954  
CYN -.00332  
CBI .00031  
GRADIENT .00000  
TORB -.03131  
DX .01114  
DY .00658  
CL .08322  
CD .00432  
CLM -.01992  
CYN .00001  
CBI .00011

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
ALPHAC  
MACH .50000  
TORB 4.01282  
DX -.10309  
DY -.14206  
CL .16710  
CD .05060  
CLM -.19469  
CYN -.00354  
CBI .00009  
GRADIENT .00000  
TORB 3.93805  
DX -.06481  
DY -.14979  
CL .32231  
CD .05925  
CLM -.23050  
CYN -.00329  
CBI .00051  
GRADIENT .00000  
TORB -.03739  
DX .01914  
DY -.00386  
CL .07761  
CD .00433  
CLM -.01791  
CYN .00013  
CBI .00021

ARC 14-120(CA23B) 74771 ATI 02S1 (CARRIER DATA)

(UNHM41) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .500

PARAMETRIC DATA

DZ = 10.000 MACH .50000 IORB 4.06528 DX -.15398 DY -.12361 CL .16919 CD .05008  
 ALPHAC 2.000 YMRP .00000 ZMRP 190.7500 IN. ZC RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00  
 4.000 GRADIENT .00000 .096079 -.07332 -.13841 .32421 .05927  
 .00000 .04033 -.00740 .07751 .00459

CY .01599 CYN -.00337 CBI .00081  
 .01825 -.00318 .00092  
 .00113 .00009 .00006

CLM .19831  
 -.23511  
 -.01840

DZ = 15.000 MACH .50000 IORB 4.05645 DX -.15015 DY -.10725 CL .18186 CD .05118  
 ALPHAC 2.000 YMRP .00000 ZMRP 190.7500 IN. ZC RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00  
 4.000 GRADIENT .00000 .095781 -.07892 -.09299 .34126 .06009  
 .00000 .03561 .00713 .07970 .00446

CY .01669 CYN -.00345 CBL -.00004  
 .01841 -.00310 .00047  
 .00886 .00018 .00025

CLM .21161  
 -.24739  
 -.01789

DZ = 30.000 MACH .50000 IORB 4.04280 DX -.07040 DY -.11765 CL .20146 CD .05102  
 ALPHAC 2.000 YMRP .00000 ZMRP 190.7500 IN. ZC RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00  
 4.000 GRADIENT .00000 .095916 -.05100 .12827 .36262 .06040  
 .00000 .04182 .00970 .08058 .00469

CY .01613 CYN -.00295 CBL .00024  
 .01757 -.00266 .00076  
 .00072 .00014 .00026

CLM .23202  
 -.26480  
 -.01639

DZ = 45.000 MACH .50000 IORB 4.01317 DX -.07934 DY -.09718 CL .21859 CD .05084  
 ALPHAC 2.000 YMRP .00000 ZMRP 190.7500 IN. ZC RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00  
 4.000 GRADIENT .00000 .094777 -.09778 .14783 .38063 .06088  
 .00000 .03270 .00922 .08102 .00502

CY .01501 CYN -.00270 CBL .00071  
 .01790 -.00256 .00081  
 .00144 .00007 .00005

CLM .24070  
 -.27346  
 -.01638

DZ = 50.000 MACH .50000 IORB 3.99721 DX -.08686 DY -.08635 CL .22516 CD .05098  
 ALPHAC 2.000 YMRP .00000 ZMRP 190.7500 IN. ZC RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00  
 4.000 GRADIENT .00000 .02832 -.01693 .03023 .08133 .00509

CY .01476 CYN -.00268 CBL .00072  
 .01821 -.00256 .00071  
 .00172 .00006 .00000

CLM .24355  
 -.27638  
 -.01642

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) (UN\*\*\*42) ( 17 OCT 75 )

REFERENCE DATA  
 SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

DZ = 3.500 MACH RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC  
 2.000  
 4.000  
 GRADIENT

10RB  
 3.96366  
 3.93590  
 -.01388

DX  
 -.01826  
 -.00129  
 .00849

DY  
 -.01679  
 -.02787  
 -.00554

CL  
 .16892  
 .32590  
 .07849

CD  
 .05259  
 .06078  
 .00409

CY  
 .02202  
 .02441  
 .00119

CYN  
 -.00330  
 -.00321  
 .00005

CBL  
 .00020  
 .00026  
 .00003

DZ = 7.500 MACH RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC  
 2.000  
 4.000  
 GRADIENT

10RB  
 3.99447  
 3.98402  
 -.00522

DX  
 -.06493  
 -.07572  
 -.00539

DY  
 -.04520  
 -.02685  
 .00917

CL  
 .18667  
 .33465  
 .07399

CD  
 .05300  
 .06128  
 .00414

CY  
 .02164  
 .02491  
 .00164

CYN  
 -.00311  
 -.00333  
 -.00011

CBL  
 .00069  
 .00068  
 -.00000

DZ = 10.000 MACH RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC  
 2.000  
 4.000  
 GRADIENT

10RB  
 3.95201  
 3.93449  
 .02124

DX  
 -.00117  
 -.08873  
 -.04378

DY  
 -.01635  
 -.04987  
 -.01676

CL  
 .18180  
 .33783  
 .07802

CD  
 .05316  
 .06115  
 .00400

CY  
 .02366  
 .02349  
 -.00008

CYN  
 -.00343  
 -.00305  
 .00019

CBL  
 -.00040  
 .00065  
 .00053

DZ = 15.000 MACH RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC  
 2.000  
 4.000  
 GRADIENT

10RB  
 4.02542  
 3.96126  
 -.02208

DX  
 -.07846  
 -.04327  
 .01759

DY  
 -.02784  
 -.03544  
 -.00380

CL  
 .19109  
 .35308  
 .08100

CD  
 .05330  
 .06184  
 .00427

CY  
 .02234  
 .02495  
 .00130

CYN  
 -.00315  
 -.00308  
 .00003

CBL  
 .00044  
 .00036  
 -.00004

DZ = 30.000 MACH RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC  
 2.000  
 4.000  
 GRADIENT

10RB  
 4.02939  
 3.97963  
 -.02538

DX  
 -.11489  
 -.07696  
 .01896

DY  
 -.03594  
 -.04474  
 -.00440

CL  
 .20689  
 .37151  
 .08231

CD  
 .05340  
 .06232  
 .00446

CY  
 .02256  
 .02410  
 .00076

CYN  
 -.00295  
 -.00264  
 .00015

CBL  
 .00032  
 .00017  
 -.00007

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 10RB = 4.000 DX = .000  
 DY = .000 MACH = .300

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ARC 14-120(CA23B) 747/1 ATI 0251 (CARRIER DATA)

(UNH\*\*42) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	MACH	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.30000	4.02411	-.09171	-.12238	.22333	.05318	-.23998	.02214	.00266	.00003
2.000	.30030	3.98272	-.05811	-.10952	.37339	.06082	-.27331	.02256	-.00232	.00049
4.000	.00000	-.02069	.01680	.00643	.07503	.00382	-.01667	.00021	.00017	.00023
GRADIENT										

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	MACH	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.30000	4.02982	-.09355	-.16157	.23008	.05308	-.24300	.02160	-.00250	.00012
2.000	.30000	3.97770	-.04004	-.13170	.37383	.06025	-.27504	.02231	-.00226	.00061
4.000	.00000	-.02606	.02676	.01493	.07188	.00358	-.01602	.00035	.00012	.00024
GRADIENT										

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITTER DATA)

(VNH008) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	MACH	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.59057	.67175	-.18918	.28470	.06975	.01668	.00356	.00123	.00062	.00000
2.000	.58914	-.05416	.10106	.34150	.07909	.02385	.00395	.00105	.00075	.00000
4.000	.59028	-.07544	.18983	.40441	.09319	.03130	.00381	.00074	.00082	.00000
GRADIENT	-.00007	-.18680	.09475	.02993	.00586	.00365	.00006	-.00012	-.00005	.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	MACH	1ORB	DX	DY	CL	CD	CLM	CY	CYN	CBL
ALPHAC	.58987	-.09481	-.36797	.28831	.07097	.01297	.00303	.00115	.00066	.00000
2.000	.58902	-.01120	-.31915	.34513	.07989	.02130	.00328	.00108	.00081	.00000
4.000	.59118	-.05854	-.46731	.41323	.09493	.02836	.00345	.00074	.00081	.00000
GRADIENT	.00033	.00907	-.02484	.03123	.00599	.00385	.00011	-.00010	-.00004	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .300

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = .000  
 RUDDER = .000 ELEVON = .000  
 TORB = .000 DX = .000  
 DY = .000 MACH = .000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.000	.000	6.00000	.59202	-.15116	-.53535	.28895	.07151	.01176	.00239	.00100	.00085	
	2.000	6.00000	.59301	.03752	-.47390	.08041	.02080	.00134	.00068	.00116		
	4.000	6.00000	.59058	-.02591	-.41868	.41402	.02724	.00290	.00066	.00103		
	GRADIENT	.00000	-.00036	.03131	.02917	.03127	.00605	.00387	.00013	-.00009	-.00005	

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.000	.000	6.00000	.59255	-.09969	-.47798	.28632	.07238	.01011	.00269	.00102	.00089	
	2.000	6.00000	.59219	.01879	-.34585	.34861	.08146	.01906	.00091	.00111		
	4.000	6.00000	.59101	-.06179	-.40137	.42038	.09742	.02584	.00327	.00068	.00101	
	GRADIENT	.00000	-.00038	.00948	.01915	.03352	.00626	.00393	.00014	-.00009	-.00003	

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.000	.000	6.00000	.59159	-.09209	-.40582	.28526	.07406	.00775	.00226	.00100	.00095	
	2.000	6.00000	.59155	.00780	-.33416	.35905	.08412	.01703	.00228	.00086	.00118	
	4.000	6.00000	.59167	-.10720	-.40864	.43664	.10132	.02308	.00305	.00049	.00119	
	GRADIENT	.00000	.00002	-.00378	-.00070	.03785	.00681	.00383	.00020	-.00013	-.00006	

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.000	.000	6.00000	.59230	-.07540	-.47401	.28293	.07525	.00632	.00176	.00092	.00087	
	2.000	6.00000	.59324	.00616	-.48236	.36228	.08573	.01523	.00174	.00075	.00109	
	4.000	6.00000	.59245	-.16935	-.52115	.45028	.10447	.02121	.00266	.00043	.00113	
	GRADIENT	.00000	.00004	-.02349	-.01178	.04184	.00731	.00372	.00023	-.00012	-.00005	

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	ALPHA	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	.000	6.00000	.59329	.04229	-.53060	.28567	.07547	.00616	.00154	.00086	.00091	
	2.000	6.00000	.59239	-.15767	-.45502	.36357	.08629	.01485	.00182	.00083	.00109	
	4.000	6.00000	.59204	-.20162	-.48963	.45185	.10491	.02060	.00258	.00043	.00119	
	GRADIENT	.00000	-.00031	-.06098	.01024	.04154	.00736	.00361	.00026	-.00011	-.00000	

ARC 14-120(CA23B) 747/1 AT1 Q2S1 (ORBITER DATA)

(VNH009) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	8.00000	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	.58956	-1.54849	-.28840	.39564	.08390	.02127	.00468	.01856	.00396	.00105	-.00057
	2.000	.59001	-.75094	-.55882	.46578	.09996	.02781	.00455	.02612	.00452	.00064	-.00021
	4.000	.59111	.01750	-.58163	.52598	.12278	.03390	.00519	.03199	.00548	-.00004	-.00057
	GRADIENT	.00039	.39150	-.07331	.03258	.00972	.00316	.00013	.00336	.00038	-.00027	-.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	8.00000	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	.58981	-2.01103	-.46973	.39569	.08553	.01856	.00396	.01856	.00396	.00087	-.00073
	2.000	.59113	-.37391	-.49652	.46036	.10016	.02491	.00452	.02491	.00452	.00067	-.00053
	4.000	.59117	-.02504	-.53884	.53183	.12455	.03199	.00548	.03199	.00548	-.00008	-.00064
	GRADIENT	.00034	.49650	-.01728	.03403	.00976	.00336	.00038	.00336	.00038	-.00024	-.00002

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	8.00000	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	.59127	-.07935	-.48612	.38692	.08400	.01898	.00344	.01898	.00344	.00090	-.00100
	2.000	.59204	-.05658	-.43816	.45528	.10023	.02491	.00489	.02491	.00489	.00078	-.00074
	4.000	.59073	-.05430	-.53020	.53670	.12580	.03068	.00579	.03068	.00579	-.00009	-.00066
	GRADIENT	.00013	.00626	-.01102	.03745	.01045	.00292	.00059	.00292	.00059	-.00025	-.00008

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	8.00000	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	.59244	-.18171	-.39780	.38362	.08468	.01744	.00243	.01744	.00243	.00068	-.00102
	2.000	.59188	-.01052	-.46944	.45715	.10084	.02354	.00316	.02354	.00316	.00040	-.00101
	4.000	.59315	-.09143	-.53470	.53951	.12745	.02880	.00546	.02880	.00546	-.00023	-.00078
	GRADIENT	.00018	.02257	-.03422	.03897	.01069	.00284	.00076	.00284	.00076	-.00023	-.00006

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	8.00000	IORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	.59222	-.13688	-.52196	.38623	.08659	.01550	.00249	.01550	.00249	.00068	-.00124
	2.000	.59285	-.10129	-.42881	.46621	.10428	.02129	.00378	.02129	.00378	.00033	-.00111
	4.000	.59137	-.13779	-.53052	.56267	.13387	.02602	.00577	.02602	.00577	-.00035	-.00063
	GRADIENT	.00000	-.00023	-.00214	.04411	.01182	.00263	.00082	.00263	.00082	-.00026	-.00015

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TABLULATED SOURCE DATA - CA238

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ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA)

(VNH009) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	8.00000	.59197	-.04829	-.55849	.38116	.08760	.01363	-.00262	.00073	-.00115
	2.000	8.00000	.59243	-.05417	-.45491	.46793	.10566	.01951	.00333	.00026	-.00097
	4.000	8.00000	.59178	-.15068	-.45507	.57321	.13736	.02353	.00502	-.00031	-.00079
	GRADIENT	.00000	-.00005	-.02560	.02586	.04801	.01244	.00248	.00060	-.00026	.00009

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 1ORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	8.00000	.59188	-.00194	-.52363	.38467	.08811	.01369	-.00281	.00072	-.00119
	2.000	8.00000	.59167	.01316	-.48819	.47247	.10625	.01912	.00334	.00020	-.00111
	4.000	8.00000	.59268	-.09422	-.46192	.57618	.13600	.02278	.00457	-.00047	-.00073
	GRADIENT	.00000	.00020	-.02307	.01543	.04788	.01247	.00227	.00044	-.00030	.00012

ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA)

(VNH010) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	8.00000	.59528	-.14459	.39993	.40170	.08360	.02338	.00454	.00101	-.00125
	2.000	8.00000	.59463	-.03459	.71214	.46638	.10105	.02802	.00401	.00035	-.00132
	4.000	8.00000	.59120	-.02236	.67475	.53935	.12530	.03345	.00502	-.00020	-.00095
	GRADIENT	.00000	-.00102	.03056	.06870	.03441	.01043	.00252	.00012	-.00030	.00008

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 1ORB = 8.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

DZ = 7.500 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	.000	CLM	.02119	CY	.00349	CYN	.00069	CBL	-.00112
2.000	.03201	.08465	.39869	.08465	.00390	.00043	.00069	-.00104	
4.000	-.05084	.10196	.46891	.12793	.00515	-.00027	.00069	-.00074	
GRADIENT	.02005	.03680	.05291	.01082	.00041	-.00029	.00069	.00009	

DZ = 10.000 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	.000	CLM	.01947	CY	.00291	CYN	.00087	CBL	-.00100
2.000	-.14457	.08523	.39577	.08523	.00396	.00054	.00087	-.00074	
4.000	-.02622	.10259	.47103	.12984	.00532	-.00033	.00087	-.00050	
GRADIENT	-.07409	.01115	.55078	.02668	.00060	-.00030	.00087	.00013	
	.01762		.03875						

DZ = 15.000 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	.000	CLM	.01834	CY	.00241	CYN	.00073	CBL	-.00116
2.000	-.13299	.08581	.39708	.08581	.00322	.00034	.00073	-.00105	
4.000	-.02739	.10340	.47153	.13157	.00490	-.00038	.00073	-.00087	
GRADIENT	-.07079	.01144	.55541	.02553	.00062	-.00028	.00073	.00007	
	.01555		.03958						

DZ = 30.000 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	.000	CLM	.01613	CY	.00178	CYN	.00065	CBL	-.00126
2.000	-.10394	.08756	.39814	.08756	.00310	.00015	.00065	-.00105	
4.000	-.08286	.10653	.48257	.13672	.00399	-.00045	.00065	-.00074	
GRADIENT	-.11834	.01229	.57413	.02569	.00055	-.00027	.00065	.00013	
	-.00017		.04400						

DZ = 45.000 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	.000	CLM	.01507	CY	.00167	CYN	.00064	CBL	-.00122
2.000	-.10371	.08839	.39755	.08839	.00350	.00019	.00064	-.00078	
4.000	-.10516	.10640	.49091	.13991	.00362	-.00037	.00064	-.00067	
GRADIENT	-.19518	.01288	.58585	.02371	.00054	-.00025	.00064	.00009	
	-.02287		.04708						



ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

(VNH010) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	ORB	MACH	DX	DY	CL	CL	CD	CLM	CY	CYN	CBL
.000	8.00000	.59362	-.01092	-.44117	.39498	.08871	.01439	.00688	.00159	.00068	-.00112
2.000	8.00000	.59473	-.00946	-.48167	.48703	.10815	.01928	.00020	.00351	.00020	-.00087
4.000	8.00000	.59456	-.12097	-.53064	.58921	.14076	.02312	.00038	.00395	-.00038	-.00075
GRADIENT	.00000	.00023	-.02751	-.02237	.04856	.01301	.00218	.00026	.00059	-.00026	.00009

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

(VNH011) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	ORB	MACH	DX	DY	CL	CL	CD	CLM	CY	CYN	CBL
.000	4.00000	.59330	-.09487	-.17585	.18458	.06138	.01110	.00271	.00271	.00104	-.00070
2.000	4.00000	.59263	-.03266	-.18204	.24155	.06543	.01691	.00307	.00307	.00111	-.00061
4.000	4.00000	.59218	-.08058	-.19776	.29814	.07438	.02408	.00274	.00274	.00095	-.00068
GRADIENT	.00000	-.00028	-.00357	-.00548	.02839	.00325	.00325	.00001	.00001	-.00002	.00001

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC	ORB	MACH	DX	DY	CL	CL	CD	CLM	CY	CYN	CBL
.000	4.00000	.59408	-.21947	-.11285	.19032	.06179	.00828	.00282	.00282	.00117	-.00070
2.000	4.00000	.59178	.10724	-.22680	.24803	.06739	.01423	.00286	.00286	.00108	-.00081
4.000	4.00000	.59253	-.00587	-.22635	.30591	.07568	.02153	.00351	.00351	.00111	-.00085
GRADIENT	.00000	-.00039	.05340	-.02837	.02890	.00347	.00331	.00017	.00017	-.00002	-.00004

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.59257	-.14626	-.15718	.19093	.06223	.00680	.00341	.00124	-.00082
	2.000	4.00000	.59162	.07409	-.23642	.25074	.06803	.01297	.00305	.00114	-.00081
	4.000	4.00000	.59123	.01922	-.24334	.30882	.07631	.02055	.00310	.00103	-.00093
	GRADIENT	.00000	-.00033	.04137	-.02154	.02947	.00352	.00344	-.00008	-.00005	-.00003

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.59363	-.12417	-.15853	.19260	.06344	.00492	.00367	.00134	-.00091
	2.000	4.00000	.59363	-.01486	-.23552	.25400	.06910	.01140	.00340	.00130	-.00082
	4.000	4.00000	.59510	-.13120	-.20103	.31615	.07779	.01977	.00321	.00111	-.00093
	GRADIENT	.00000	.00037	-.00176	-.01063	.03089	.00359	.00371	-.00012	-.00006	-.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.59535	-.13025	-.16001	.19275	.06502	.00226	.00280	.00120	-.00107
	2.000	4.00000	.59466	-.13397	-.23880	.26263	.07195	.00921	.00213	.00102	-.00098
	4.000	4.00000	.59389	-.12946	-.23698	.33510	.08167	.01803	.00284	.00100	-.00113
	GRADIENT	.00000	-.00036	.00020	-.01924	.03559	.00416	.00394	.00001	-.00005	-.00002

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.59326	-.07470	-.23397	.19290	.06644	.00068	.00218	.00108	-.00101
	2.000	4.00000	.59295	-.21245	-.23003	.27317	.07374	.00895	.00207	.00101	-.00101
	4.000	4.00000	.59271	-.14676	-.22429	.35252	.08441	.01670	.00259	.00095	-.00105
	GRADIENT	.00000	-.00014	-.01801	.00117	.03990	.00449	.00401	.00010	-.00003	-.00001

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
	.000	4.00000	.59237	-.06283	-.25594	.19283	.06700	.00016	.00203	.00106	-.00096
	2.000	4.00000	.59276	-.24187	-.29421	.27704	.07396	.00772	.00221	.00106	-.00088
	4.000	4.00000	.59289	-.17550	-.20810	.35823	.08522	.01632	.00257	.00095	-.00099
	GRADIENT	.00000	.00013	-.02817	.01196	.04135	.00456	.00404	.00014	-.00002	-.00001

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(VNH013) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
• 3.500	.000	6.00000	.59330	-.02265	-.52888	.29838	.07128	.01711	.00186	.00101	-.00044
	2.000	6.00000	.59492	-.03416	-.45886	.35121	.08002	.02524	.00293	.00106	-.00044
	4.000	6.00000	.59380	-.06456	-.53850	.41304	.09443	.03232	.00268	.00081	-.00046
	GRADIENT	.00000	.00013	-.01048	-.00240	.02866	.00579	.00380	.00020	-.00005	-.00001

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
• 7.500	.000	6.00000	.59143	-.14594	-.42355	.29525	.07151	.01390	.00206	.00111	-.00046
	2.000	6.00000	.59273	-.03204	-.49988	.35221	.08048	.02250	.00237	.00104	-.00059
	4.000	6.00000	.59233	-.03940	-.51321	.41977	.09567	.02940	.00234	.00078	-.00057
	GRADIENT	.00000	.00022	-.02663	-.02242	.03113	.00604	.00388	.00007	-.00008	-.00003

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
• 10.000	.000	6.00000	.59144	-.18620	-.44808	.29537	.07176	.01306	.00243	.00122	-.00061
	2.000	6.00000	.59173	-.00336	-.58353	.35337	.08063	.02188	.00184	.00094	-.00059
	4.000	6.00000	.59203	-.07451	-.59846	.42175	.09609	.02863	.00246	.00073	-.00072
	GRADIENT	.00000	.00015	.02792	-.03759	.03160	.00608	.00389	.00001	-.00012	-.00003

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
• 15.000	.000	6.00000	.59111	-.11818	-.47005	.29399	.07232	.01167	.00199	.00106	-.00067
	2.000	6.00000	.59100	.09841	-.49785	.35515	.08195	.02019	.00184	.00092	-.00071
	4.000	6.00000	.59097	-.01302	-.52853	.42557	.09760	.02694	.00224	.00064	-.00085
	GRADIENT	.00000	-.00004	.02629	-.01462	.03290	.00632	.00382	.00006	-.00010	-.00004

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	1ORB	MACH	DX	DY	CL	CD	CLM	CY	CYN	CBL
• 30.000	.000	6.00000	.59008	-.13369	-.45772	.29519	.07378	.00957	.00211	.00101	-.00101
	2.000	6.00000	.59033	.02128	-.53834	.36502	.08407	.01849	.00182	.00085	-.00096
	4.000	6.00000	.59054	-.08049	-.50667	.44301	.10127	.02476	.00299	.00065	-.00097
	GRADIENT	.00000	.00012	.01330	-.01224	.03695	.00687	.00380	.00022	-.00009	-.00001

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(VNHM41) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

DZ = 45.000  
 ALPHAAC 2.000  
 MACH .50000  
 GRADIENT 4.000

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

1ORB 4.01317 DX -.07934 DY -.09718 CL .28000 CD .07345  
 3.94777 -.09778 -.14783 .35279 .08373  
 -.03270 -.00922 -.02532 .03640 .00514

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 1ORB = 4.000 DX = .000  
 DY = .000 MACH = .500

CLM .00782 CYN .00093 CBL -.00105  
 .01574 .00093 -.00092  
 .00396 .00021 -.00000 .00006

DZ = 50.000  
 ALPHAAC 2.000  
 MACH .50000  
 GRADIENT 4.000

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

1ORB 3.99721 DX -.08686 DY -.08635 CL .28209 CD .07378  
 3.94057 -.12072 -.14681 .35752 .08446  
 -.02832 -.01693 -.03023 .03772 .00534

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 1ORB = 4.000 DX = .000  
 DY = .000 MACH = .300

CLM .00757 CYN .00090 CBL -.00114  
 .01537 .00090 -.00091  
 .00390 .00023 .00000 .00011

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

DZ = 3.500  
 ALPHAAC 2.000  
 MACH .30000  
 GRADIENT 4.000

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

1ORB 3.96366 DX -.01826 DY -.01679 CL .24783 CD .06851  
 3.93590 -.00129 -.02787 .30620 .07713  
 -.01388 .00849 -.00554 .02919 .00431

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 1ORB = 4.000 DX = .000  
 DY = .000 MACH = .300

CLM .01568 CYN .00073 CBL -.00040  
 .02255 .00070 -.00047  
 .00343 -.00006 -.00001 -.00003

DZ = 7.500  
 ALPHAAC 2.000  
 MACH .30000  
 GRADIENT 4.000

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

1ORB 3.99447 DX -.06493 DY -.04520 CL .25897 CD .06979  
 3.98402 -.07572 -.02685 .31786 .07887  
 -.00522 -.00539 .00917 .02944 .00454

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 1ORB = 4.000 DX = .000  
 DY = .000 MACH = .300

CLM .01347 CYN .00050 CBL -.00048  
 .01997 .00071 -.00041  
 .00325 .00038 .00011 .00003

(VNHM42) ( 17 OCT 75 )

PARAMETRIC DATA

CY .00254 CYN .00090 CBL -.00114  
 .00300 .00090 -.00091  
 .00023 .00000 .00000 .00011

PARAMETRIC DATA

CY .00326 CYN .00073 CBL -.00040  
 .00315 .00070 -.00047  
 -.00006 -.00001 -.00003

PARAMETRIC DATA

CY .00189 CYN .00050 CBL -.00048  
 .00266 .00071 -.00041  
 .00038 .00011 .00003







ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(ZNH009) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

OZ	ALPHAO	MACH	RUN NO.	0 / 0	RN/L =	3.35	GRADIENT INTERVAL =	-5.00 /	5.00	CLM	CYN	CBL
10.000	8.000	.59127								.00344	.00090	-.00100
10.000	10.000	.59204								.00469	.00078	-.00074
10.000	12.000	.59073								.00579	-.00009	-.00066
	GRADIENT	.00000								.00000	.00000	.00000

DZ	ALPHAO	MACH	RUN NO.	0 / 0	RN/L =	3.35	GRADIENT INTERVAL =	-5.00 /	5.00	CLM	CYN	CBL
15.000	8.000	.59244								.00243	.00068	-.00102
15.000	10.000	.59188								.00316	.00040	-.00101
15.000	12.000	.59315								.00546	-.00023	-.00078
	GRADIENT	.00000								.00000	.00000	.00000

DZ	ALPHAO	MACH	RUN NO.	0 / 0	RN/L =	3.35	GRADIENT INTERVAL =	-5.00 /	5.00	CLM	CYN	CBL
30.000	8.000	.59222								.00249	.00068	-.00124
30.000	10.000	.59285								.00378	.00033	-.00111
30.000	12.000	.59137								.00577	-.00035	-.00063
	GRADIENT	.00000								.00000	.00000	.00000

DZ	ALPHAO	MACH	RUN NO.	0 / 0	RN/L =	3.34	GRADIENT INTERVAL =	-5.00 /	5.00	CLM	CYN	CBL
45.000	8.000	.59197								.00262	.00073	-.00115
45.000	10.000	.59043								.00333	.00026	-.00097
45.000	12.000	.59078								.00502	-.00031	-.00079
	GRADIENT	.00000								.00000	.00000	.00000

DZ	ALPHAO	MACH	RUN NO.	0 / 0	RN/L =	3.33	GRADIENT INTERVAL =	-5.00 /	5.00	CLM	CYN	CBL
50.000	8.000	.59198								.00281	.00072	-.00119
50.000	10.000	.59167								.00334	.00020	-.00111
50.000	12.000	.59268								.00457	-.00047	-.00073
	GRADIENT	.00000								.00000	.00000	.00000





ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ZNH010) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.000	8.000	.59362	.00000	-1.0371	-4.3686	.31755	.08839	.01507	.00167	.00054	-.00122
45.000	10.000	.59473	2.00000	-1.10516	-4.3091	.48703	.10815	.02014	.00350	.00019	-.00078
45.000	12.000	.59539	4.00000	-1.19518	-4.7170	.58585	.13991	.02371	.00382	-.00037	-.00087
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	8.000	.59362	.00000	-1.0192	-4.4117	.39498	.08871	.01439	.00159	.00068	-.00112
50.000	10.000	.59473	2.00000	-1.00946	-4.8167	.48703	.10815	.01928	.00351	.00020	-.00087
50.000	12.000	.59456	4.00000	-1.12097	-5.3064	.58921	.14076	.02312	.00395	-.00038	-.00075
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ZNH011) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	4.000	.59330	.00000	-.09497	-1.17585	.18458	.06138	.01110	.00271	.00104	-.00070
3.500	6.000	.59263	2.00000	-.03266	-1.8204	.24155	.06643	.01691	.00307	.00111	-.00061
3.500	8.000	.59218	4.00000	-.08058	-1.19776	.29814	.07438	.02408	.00274	.00096	-.00068
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.500	4.000	.59408	.00000	-.21947	-1.11285	.19032	.06179	.00828	.00282	.00117	-.00070
7.500	6.000	.59178	2.00000	.10724	-2.2680	.24803	.06739	.01423	.00286	.00108	-.00081
7.500	8.000	.59253	4.00000	-.00587	-2.22635	.30591	.07568	.02153	.00351	.00111	-.00095
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

PARAMETRIC DATA

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OF POOR QUALITY**

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = .000 DX = .000  
 DY = .600 MACH =

PARAMETRIC DATA

DZ	ALPHA	MACH	RUN NO.	0/0	RN/L = 3.35	GRADIENT INTERVAL = -5.00/ 5.00	CD	CL	CLM	CY	CYN	CBL
10.000	4.000	.59257			-.14626	.19093	.06223	.06580	.00341	.00124		-.00023
10.000	6.000	.59162			.07409	.25074	.06803	.01297	.00305	.00114		-.00081
10.000	8.000	.59123			.01922	.30882	.07631	.02055	.00310	.00103		-.00093
	GRADIENT	.00000			.00000	.00000	.00000	.00000	.00000	.00000		.00000

DZ	ALPHA	MACH	RUN NO.	0/0	RN/L = 3.35	GRADIENT INTERVAL = -5.00/ 5.00	CD	CL	CLM	CY	CYN	CBL
15.000	4.000	.59363			-.12417	.19260	.06344	.00492	.00367	.00134		-.00091
15.000	6.000	.59363			-.01466	.25400	.06910	.01140	.00340	.00130		-.00082
15.000	8.000	.59510			-.13120	.31615	.07779	.01977	.00321	.00111		-.00093
	GRADIENT	.00000			.00000	.00000	.00000	.00000	.00000	.00000		.00000

DZ	ALPHA	MACH	RUN NO.	0/0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00	CD	CL	CLM	CY	CYN	CBL
30.000	4.000	.59326			-.13025	.19275	.06502	.00226	.00280	.00120		-.00107
30.000	6.000	.59468			-.13397	.26263	.07195	.00921	.00213	.00102		-.00098
30.000	8.000	.59389			-.12946	.33510	.08167	.01803	.00284	.00100		-.00113
	GRADIENT	.00000			.00000	.00000	.00000	.00000	.00000	.00000		.00000

DZ	ALPHA	MACH	RUN NO.	0/0	RN/L = 3.33	GRADIENT INTERVAL = -5.00/ 5.00	CD	CL	CLM	CY	CYN	CBL
45.000	4.000	.59326			-.07470	.19290	.06644	.00068	.00218	.00108		-.00101
45.000	6.000	.59326			-.21255	.27317	.07354	.00805	.00207	.00101		-.00092
45.000	8.000	.59271			-.14676	.35252	.08441	.01670	.00259	.00095		-.00105
	GRADIENT	.00000			.00000	.00000	.00000	.00000	.00000	.00000		.00000

DZ	ALPHA	MACH	RUN NO.	0/0	RN/L = 3.33	GRADIENT INTERVAL = -5.00/ 5.00	CD	CL	CLM	CY	CYN	CBL
50.000	4.000	.59237			-.06733	.19283	.06700	.00016	.00203	.00106		-.00096
50.000	6.000	.59276			-.24187	.27704	.07396	.00772	.00221	.00106		-.00088
50.000	8.000	.59289			-.17552	.35623	.08522	.01632	.00257	.00096		-.00099
	GRADIENT	.00000			.00000	.00000	.00000	.00000	.00000	.00000		.00000

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (ZNH013) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0125

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = .000  
DY = .000 MACH = 1.600

PARAMETRIC DATA

RUN NO.	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	6.000	.59330	.00000	-.02265	-.42688	.29838	.07128	.01711	.00186	.00101	-.00044
3.500	8.000	.59492	2.00000	-.03416	-.45886	.35121	.08002	.02524	.00293	.00106	-.00044
3.500	10.000	.59390	4.00000	-.06456	-.53850	.41304	.09443	.03232	.00268	.00081	-.00046
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
GRADIENT INTERVAL = -5.00/ 5.00											
7.500	6.000	.59143	.00000	-.14594	-.42355	.29525	.07151	.01390	.00206	.00111	-.00046
7.500	8.000	.59273	2.00000	-.03204	-.49888	.35221	.08048	.02250	.00237	.00104	-.00059
7.500	10.000	.59203	4.00000	-.03940	-.51321	.41977	.09567	.02940	.00234	.00078	-.00057
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
GRADIENT INTERVAL = -5.00/ 5.00											
10.000	6.000	.59144	.00000	-.18620	-.44808	.29537	.07176	.01306	.00243	.00122	-.00061
10.000	8.000	.59173	2.00000	-.00336	-.58353	.35337	.08063	.02188	.00184	.00094	-.00069
10.000	10.000	.59203	4.00000	-.07451	-.59846	.42175	.09609	.02863	.00246	.00073	-.00072
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
GRADIENT INTERVAL = -5.00/ 5.00											
15.000	6.000	.59111	.00000	-.11818	-.47005	.29399	.07232	.01167	.00199	.00106	-.00067
15.000	8.000	.59100	2.00000	-.09841	-.49785	.35515	.08195	.02019	.00184	.00092	-.00071
15.000	10.000	.59097	4.00000	-.01302	-.52853	.42557	.09760	.02694	.00224	.00064	-.00085
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
GRADIENT INTERVAL = -5.00/ 5.00											
30.000	6.000	.59008	.00000	-.13369	-.45772	.29519	.07378	.00957	.00211	.00101	-.00101
30.000	8.000	.59033	2.00000	-.02128	-.53834	.36502	.08407	.01849	.00182	.00085	-.00096
30.000	10.000	.59054	4.00000	-.08049	-.50667	.44301	.10127	.02476	.00299	.00065	-.00097
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
GRADIENT INTERVAL = -5.00/ 5.00											











ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA) (ZMH022) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2520.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 932.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .3125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = .000 DX = .000  
 DY = .000 MACH = .500

PARAMETRIC DATA

DZ	ALPHAO	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.000	8.000	.58709	.00000	-.19173	-.20231	.22011	.07039	.05681	.00334	.00067	-.00141
10.000	10.000	.58728	2.00000	-.07957	-.14578	.3290	.08312	.06449	.00367	.00045	-.00155
10.000	12.000	.58773	4.00000	-.13358	-.16540	.45425	.10593	.07035	.00454	-.00030	-.00115
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.000	8.000	.58694	.00000	-.18748	-.23899	.31563	.07053	.05523	.00217	.00046	-.00146
15.000	10.000	.58647	2.00000	-.13443	-.18170	.38564	.08369	.06382	.00273	.00029	-.00137
15.000	12.000	.58681	4.00000	-.07010	-.29145	.46909	.10736	.06922	.00536	-.00011	-.00116
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.000	8.000	.58879	.00000	-.10260	-.12441	.31691	.07199	.05339	.00255	.00051	-.00153
30.000	10.000	.58798	2.00000	-.07780	-.12012	.39233	.08559	.06151	.00279	.00024	-.00180
30.000	12.000	.58967	4.00000	-.15887	-.18301	.48784	.11276	.06646	.00434	-.00028	-.00130
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.000	8.000	.58810	.00000	-.03873	-.20232	.31379	.07261	.05163	.00206	.00048	-.00152
45.000	10.000	.58849	2.00000	-.04281	-.22602	.39693	.08689	.05927	.00213	.00019	-.00149
45.000	12.000	.58317	4.00000	-.15934	-.17723	.50009	.11560	.06419	.00394	-.00027	-.00119
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	8.000	.58795	.00000	-.00133	-.19968	.31246	.07277	.05115	.00229	.00059	-.00144
50.000	10.000	.58925	2.00000	-.00301	-.25501	.39580	.08720	.05927	.00215	.00021	-.00145
50.000	12.000	.58942	4.00000	-.11060	-.16164	.49342	.11598	.06330	.00420	-.00018	-.00124
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00



ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(ZNH023) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.000	6.000	.58641	.00000	.02545	-.31603	.21689	.06271	.04193	.00182	.00059	-.00141
45.000	8.000	.58821	2.00000	-.10675	-.27867	.29012	.07069	.05219	.00191	.00045	-.00130
45.000	10.000	.58801	4.00000	-.15959	-.27362	.37463	.08556	.06099	.00236	.00017	-.00135
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	6.000	.58729	.00000	.06326	-.39542	.21499	.06313	.04166	.00191	.00062	-.00126
50.000	8.000	.58809	2.00000	-.12785	-.35762	.29169	.07114	.05209	.00219	.00052	-.00137
50.000	10.000	.58823	4.00000	-.17777	-.33684	.37701	.08636	.06053	.00214	.00022	-.00125
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	6.000	.58556	.00000	-.15710	-.05439	.21814	.05847	.05061	.00322	.00075	-.00121
3.500	8.000	.58534	2.00000	-.05661	-.04203	.27322	.06437	.06040	.00380	.00071	-.00112
3.500	10.000	.58738	4.00000	-.07286	-.01917	.33132	.07510	.06962	.00327	.00042	-.00137
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.500	6.000	.58752	.00000	-.15273	-.13760	.21899	.05878	.04859	.00330	.00078	-.00123
7.500	8.000	.58737	2.00000	-.02438	-.07570	.27358	.06494	.05790	.00383	.00078	-.00115
7.500	10.000	.58739	4.00000	-.04246	-.02463	.33503	.07630	.06737	.00373	.00049	-.00146
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(ZNH024) ( 17 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600



(ZNM025) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

DZ	ALPHAO	MACH	ALPHAO	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	8.000	.58688	.00000	.00000	-.08582	.17360	.31304	.06702	.05902	.00453	.00091	-.00090
3.500	10.000	.58953	2.00000	2.00000	-.14166	-.01841	.33157	.08021	.06701	.00370	.00053	-.00100
3.500	12.000	.58754	4.00000	4.00000	-.05494	-.02214	.44195	.09871	.07305	.00445	.00017	-.00144
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAO	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.500	8.000	.58725	.00000	.00000	-.09264	.11948	.31324	.06765	.05762	.00360	.00073	-.00128
7.500	10.000	.58832	2.00000	2.00000	-.09157	.02817	.37663	.08042	.06533	.00332	.00043	-.00127
7.500	12.000	.58763	4.00000	4.00000	-.06110	.00034	.44998	.10134	.07157	.00456	.00002	-.00130
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAO	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.000	8.000	.58784	.00000	.00000	-.09040	.08861	.31397	.06802	.05658	.00307	.00059	-.00151
10.000	10.000	.58815	2.00000	2.00000	-.03781	.05364	.37131	.08043	.06384	.00289	.00036	-.00138
10.000	12.000	.58774	4.00000	4.00000	-.06054	.03091	.45594	.10338	.07046	.00487	.00015	-.00117
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAO	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.000	8.000	.58898	.00000	.00000	-.11995	.04068	.31176	.06865	.05539	.00369	.00064	-.00166
15.000	10.000	.58833	2.00000	2.00000	-.06631	.03239	.37832	.08142	.06351	.00360	.00041	-.00183
15.000	12.000	.58759	4.00000	4.00000	-.08560	-.02535	.46087	.10455	.06939	.00410	.00024	-.00127
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAO	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.000	8.000	.58726	.00000	.00000	-.13458	.04159	.31250	.07046	.05296	.00295	.00056	-.00162
30.000	10.000	.58915	2.00000	2.00000	-.11340	.01715	.38439	.08417	.06119	.00308	.00036	-.00148
30.000	12.000	.58844	4.00000	4.00000	-.17807	-.03594	.47982	.11039	.06634	.00399	.00023	-.00108
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITTER DATA)

(ZNH025) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CBL
45.000	8.000	.58850	.00000	-.05870	-.01594	.31148	.07153	.05122	-.00154
45.000	10.000	.58832	2.00000	-.09865	.01874	.39258	.08597	.05944	-.00160
45.000	12.000	.58778	4.00000	-.17449	.00419	.49548	.11407	.06403	-.00099
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

.000 STAB =  
 .000 ELEVON =  
 8.000 DX =  
 .000 MACH =

CY CYN CBL  
 .00272 .00055  
 .00277 .00027  
 .00363 -.00026  
 .00000 .00000

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CBL
50.000	8.000	.58749	.00000	.01451	-.04207	.31205	.07193	.05064	-.00129
50.000	10.000	.58818	2.00000	-.07501	.01766	.39601	.08674	.05912	-.00146
50.000	12.000	.58720	4.00000	-.18335	.05471	.49858	.11484	.06351	-.00112
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

.000 STAB =  
 .000 ELEVON =  
 8.000 DX =  
 .000 MACH =

CY CYN CBL  
 .00233 .00055  
 .00263 .00025  
 .00396 -.00019  
 .00000 .00000

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITTER DATA)

(ZNH027) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

RUN NO. 0 / 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CBL
3.500	8.000	.58488	.00000	-.04747	.07762	.31755	.05216	.04502	-.00211
3.500	10.000	.58749	2.00000	-.16311	.16832	.38604	.06477	.05354	-.00255
3.500	12.000	.58723	4.00000	-.20081	.04725	.45945	.08486	.06000	-.00216
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

.000 STAB =  
 .000 ELEVON =  
 8.000 DX =  
 .000 MACH =

CY CYN CBL  
 .00585 .00006  
 .00880 .00027  
 .00823 -.00105  
 .00000 .00000

RUN NO. 0 / 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CBL
7.500	8.000	.58594	.00000	-.11490	.07994	.31843	.05214	.04262	-.00224
7.500	10.000	.58694	2.00000	-.10494	.09838	.38576	.06480	.05100	-.00233
7.500	12.000	.58659	4.00000	-.14418	.05239	.46349	.08597	.05605	-.00222
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

.000 STAB =  
 .000 ELEVON =  
 8.000 DX =  
 .000 MACH =

CY CYN CBL  
 .00702 .00009  
 .00798 .00005  
 .00872 -.00099  
 .00000 .00000











REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = 10.000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 LORB = 6.000 DX = .000  
 SCALE = .0125 .0000 MACH = .600

RUN NO. 361/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .58715 ALPHA .27133 CL .04740 CLM .04804 CBL  
 .58790 .00000 DX .19679 DY .23177 CD .05814 .05865  
 .00000 .00000 .00000 .00000 .00000 .00000 .00000  
 GRADIENT

RUN NO. 362/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .58749 ALPHA .28277 CL .04901 CLM .04746 CBL  
 .58652 .00000 DX .15931 DY .33033 CD .05820 .05604  
 .00000 .00000 .00000 .00000 .00000 .00000 .00000  
 GRADIENT

RUN NO. 363/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .58730 ALPHA .29056 CL .04957 CLM .04302 CBL  
 .58642 .00000 DX .10972 DY .22874 CD .05939 .05135  
 .00000 .00000 .00000 .00000 .00000 .00000 .00000  
 GRADIENT

RUN NO. 364/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .58578 ALPHA .28988 CL .04932 CLM .04029 CBL  
 .58622 .00000 DX .12131 DY .20959 CD .06043 .04939  
 .00000 .00000 .00000 .00000 .00000 .00000 .00000  
 GRADIENT

RUN NO. 365/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .58596 ALPHA .29245 CL .05072 CLM .03803 CBL  
 .58533 .00000 DX .09552 DY .20626 CD .06161 .04706  
 .00000 .00000 .00000 .00000 .00000 .00000 .00000  
 GRADIENT

RUN NO. 366/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .58552 ALPHA .30570 CL .05290 CLM .03616 CBL  
 .58513 .00000 DX .17938 DY .18027 CD .06587 .04464  
 .00000 .00000 .00000 .00000 .00000 .00000 .00000  
 GRADIENT

PARAMETRIC DATA

CY .00914 CYN -.00062 CBL -.00217  
 .00906 -.00067 -.00269  
 .00000 .00000 .00000

CY .00858 CYN -.00050 CBL -.00225  
 .00917 -.00043 -.00256  
 .00000 .00000 .00000

CY .00929 CYN -.00019 CBL -.00247  
 .00914 -.00043 -.00287  
 .00000 .00000 .00000

CY .00933 CYN -.00005 CBL -.00240  
 .00870 -.00047 -.00272  
 .00000 .00000 .00000

CY .00915 CYN -.00021 CBL -.00236  
 .00888 -.00046 -.00280  
 .00000 .00000 .00000

CY .00851 CYN -.00040 CBL -.00262  
 .00879 -.00059 -.00293  
 .00000 .00000 .00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ZNH036) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 367/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	45.000	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
	45.000	.58535	2.00000	-.12773	.16996	.37734	.05507	.03392	.00842	-.00042	-.00250
		.58520	4.00000	-.10214	.15528	.33232	.06840	.04319	.00880	-.00060	-.00269
		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 368/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.000	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
	50.000	.58475	2.00000	-.04440	.16550	.30410	.05512	.03272	.00836	-.00028	-.00237
		.58452	4.00000	-.09832	.15991	.38762	.06943	.04244	.00857	-.00078	-.00264
		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 369/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	60.000	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
	60.000	.58490	2.00000	-.01489	.14432	.31216	.05561	.03331	.00814	-.00023	-.00247
		.58408	4.00000	-.05197	.13629	.39004	.07011	.04158	.00848	-.00063	-.00260
		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 371/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	2.000	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
	2.000	.58985	2.00000	-.11180	.10330	.21229	.04009	.03820	.00809	-.00014	-.00176
	2.000	.59004	4.00000	-.08329	.07589	.26910	.04675	.04954	.00770	-.00043	-.00210
		.59071	4.00000	-.11084	.06050	.32436	.05643	.05931	.00816	-.00052	-.00228
		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ZNH037) ( 17 OCT 75 )



ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ZNH037) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 377/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.000	6.177	.00000	-.06037	.07487	.26558	.04503	.02208	.00789	-.00040	-.00255
45.000	7.947	2.00000	-.25014	.08152	.26544	.05241	.03466	.00809	-.00034	-.00261
45.000	9.954	4.00000	-.12897	.11615	.37912	.06667	.04424	.00804	-.00071	-.00257
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 378/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	6.177	.00000	-.01302	.05306	.23635	.04549	.02247	.00760	-.00037	-.00245
50.000	7.977	2.00000	-.23513	.12658	.29763	.05313	.03379	.00781	-.00038	-.00238
50.000	9.944	4.00000	-.21663	.11732	.37992	.06743	.04346	.00759	-.00083	-.00237
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 379/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
60.000	6.130	.00000	.11963	.10470	.23543	.04584	.02184	.00735	-.00054	-.00240
60.000	7.968	2.00000	-.20065	.11574	.29885	.05369	.03270	.00736	-.00048	-.00241
60.000	9.927	4.00000	-.23438	.09894	.38294	.06817	.04258	.00730	-.00080	-.00237
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 381/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
2.000	6.002	.00000	-.17966	.08842	.31463	.05245	-.00141	.00477	.00088	-.00088
2.000	7.874	2.00000	.01417	.09886	.36410	.06046	.00765	.00479	.00078	-.00096
2.000	9.948	4.00000	-.08135	.09314	.42438	.07469	.01674	.00456	.00065	-.00139
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ZNH038) ( 17 OCT 75 )



ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

(ZNH038) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. X\*RP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. Y\*RP = .0000 IN. YO  
 BREF = 936.6800 IN. Z\*RP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 387/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.000	6.149	.58561	.0000	-.10562	.06736	.32970	.05648	-.01716	.00408	.00110	-.00138
45.000	7.962	.58667	2.0000	-.05353	.08859	.32558	.06095	-.00792	.00418	.00124	-.00155
45.000	9.950	.58695	4.0000	-.17347	.03891	.47649	.08483	-.00012	.00352	.00101	-.00167
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 LORR = 6.000  
 DY = .000  
 MACH = .600  
 STAB = 5.000  
 ELEVON = 5.000  
 DX = .000  
 MACH = .600

RUN NO. 388/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	6.112	.58469	.0000	.14510	.11797	.32762	.05641	-.01757	.00365	.00084	-.00157
50.000	7.928	.58451	2.0000	-.14575	.08722	.39648	.06587	-.00823	.00374	.00105	-.00162
50.000	9.904	.58453	4.0000	-.18128	.08393	.48261	.08610	-.00040	.00389	.00109	-.00169
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 389/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
60.000	6.088	.58455	.0000	.14152	.12373	.31994	.05675	-.01876	.00400	.00100	-.00158
60.000	7.843	.58431	2.0000	-.06113	.08440	.39198	.06738	-.00976	.00378	.00112	-.00161
60.000	9.593	.58414	4.0000	-.21350	.05094	.46389	.07798	-.00084	.00350	.00120	-.00165
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. X\*RP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. Y\*RP = .0000 IN. YO  
 BREF = 936.6800 IN. Z\*RP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 391/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	7.848	.59035	2.0000	-.08042	.07823	.35168	.07785	.02468	.00514	.00125	-.00069
3.500	9.933	.59085	4.0000	-.04830	.00540	.41699	.09341	.03248	.00406	.00081	-.00108
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000  
 RUDDER = 10.000  
 LORR = 6.000  
 DY = .000  
 MACH = .600  
 STAB = 5.000  
 ELEVON = 5.000  
 DX = .000  
 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

(ZNH039) ( 17 OCT 75 )







(ZNH040) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 4.000 DX = .000  
DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0125

RUN NO.	0 / 0	RN/L = 3.33	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA	ALPHAC	CLM
45.000	4.000	.00000	-.00007
45.000	6.000	2.00000	.00771
45.000	8.000	4.00000	.01633
GRADIENT		.00000	.00000

RUN NO.	0 / 0	RN/L = 3.32	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA	ALPHAC	CLM
50.000	4.000	.00000	-.00040
50.000	6.000	2.00000	.00714
50.000	8.000	4.00000	.01615
GRADIENT		.00000	.00000

RUN NO.	0 / 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA	ALPHAC	CLM
3.500	10.000	2.00000	.02806
3.500	12.000	4.00000	.03351
GRADIENT		.00000	.00000

RUN NO.	0 / 0	RN/L = 3.32	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA	ALPHAC	CLM
50.000	4.000	.00000	-.00119
50.000	6.000	2.00000	-.00092
50.000	8.000	4.00000	-.00102
GRADIENT		.00000	.00000

RUN NO.	0 / 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA	ALPHAC	CLM
7.500	10.000	2.00000	.02638
7.500	12.000	4.00000	.03155
GRADIENT		.00000	.00000

RUN NO.	0 / 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA	ALPHAC	CLM
7.500	10.000	2.00000	.00387
7.500	12.000	4.00000	.00512
GRADIENT		.00000	.00000

(ZNHX10) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 8.000 DX = .000  
DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0125

RUN NO.	0 / 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA	ALPHAC	CLM
3.500	10.000	2.00000	.02806
3.500	12.000	4.00000	.03351
GRADIENT		.00000	.00000

RUN NO.	0 / 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA	ALPHAC	CLM
7.500	10.000	2.00000	.00387
7.500	12.000	4.00000	.00512
GRADIENT		.00000	.00000

RUN NO.	0 / 0	RN/L = 3.34	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA	ALPHAC	CLM
7.500	10.000	2.00000	.00387
7.500	12.000	4.00000	.00512
GRADIENT		.00000	.00000





ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(ZNHX13) ( 17 OCT 75 )

REFERENCE DATA

DZ = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 YMRP = 474.8100 IN. Y0  
 ZMRP = 936.6800 IN. Z0  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA DX DY CL CD CLM CBL  
 50.000 8.000 2.00000 .51807 .37026 .08642 .0136 .00089  
 50.000 10.000 4.00000 .59137 .45859 .10522 .00217 .00053  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(ZNHX14) ( 17 OCT 75 )

REFERENCE DATA

DZ = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 YMRP = 474.8100 IN. Y0  
 ZMRP = 936.6800 IN. Z0  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA DX DY CL CD CLM CBL  
 3.500 8.000 2.00000 .58231 .34591 .08019 .00208 .00118  
 3.500 10.000 4.00000 .58310 .40591 .09450 .00195 .00093  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(ZNHX13) ( 17 OCT 75 )

REFERENCE DATA

DZ = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 YMRP = 474.8100 IN. Y0  
 ZMRP = 936.6800 IN. Z0  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA DX DY CL CD CLM CBL  
 10.000 8.000 2.00000 .56959 .35415 .08099 .00100 .00098  
 10.000 10.000 4.00000 .56965 .41762 .09646 .00148 .00080  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(ZNHX14) ( 17 OCT 75 )

REFERENCE DATA

DZ = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 YMRP = 474.8100 IN. Y0  
 ZMRP = 936.6800 IN. Z0  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA DX DY CL CD CLM CBL  
 15.000 8.000 2.00000 .58831 .35646 .08218 .00126 .00104  
 15.000 10.000 4.00000 .58836 .42507 .09835 .00177 .00075  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

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OF POOR QUALITY**

DATE 23 MAR 76 TABULATED SOURCE DATA - CA23B PAGE 453  
 ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA) (ZNHX14) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 LORR = .000 DX = 10.000  
 SCALE = .0125 .000000 MACH = .600 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 2.00000 ALPHAC 3.6731 CLM .01610 CBL  
 .58818 8.000 2.00000 CL .44515 .02142 -.00083  
 .59074 10.000 4.00000 DY -.54427 .00000 .00117 .00095  
 .00000 10.00000 .00000 .00000 .00146 .00057 -.00095  
 .00000 .00000 .00000 .00000 .00000 .00000 .00000

REFERENCE DATA

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 2.00000 ALPHAC 3.6993 CLM .01521 CBL  
 .59041 8.000 2.00000 CL .45985 .02053 .00132 .00105  
 .59056 10.000 4.00000 DY -.62433 .00000 .00124 .00048  
 .00000 10.00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 2.00000 ALPHAC 4.5294 CLM .02438 CBL  
 .59041 8.000 2.00000 CL .52051 .02860 .00018 .00074  
 .59056 10.000 4.00000 DY -.59402 .00000 .00108 .00048  
 .00000 10.00000 .00000 .00000 .00000 .00000 .00000

REFERENCE DATA

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 2.00000 ALPHAC 4.6011 CLM .02373 CBL  
 .59041 8.000 2.00000 CL .53240 .00000 .00250 .00077  
 .59044 10.000 4.00000 DY -.66536 .00000 .00452 .00011  
 .00000 10.00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 2.00000 ALPHAC 4.6011 CLM .02373 CBL  
 .59041 8.000 2.00000 CL .53240 .00000 .00250 .00077  
 .59044 10.000 4.00000 DY -.66536 .00000 .00452 .00011  
 .00000 10.00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 2.00000 ALPHAC 4.6011 CLM .02373 CBL  
 .59041 8.000 2.00000 CL .53240 .00000 .00250 .00077  
 .59044 10.000 4.00000 DY -.66536 .00000 .00452 .00011  
 .00000 10.00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 2.00000 ALPHAC 4.6011 CLM .02373 CBL  
 .59041 8.000 2.00000 CL .53240 .00000 .00250 .00077  
 .59044 10.000 4.00000 DY -.66536 .00000 .00452 .00011  
 .00000 10.00000 .00000 .00000 .00000 .00000 .00000







ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(ZNHX16) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	8.000	.58887	2.00000	20.00000	-.80299	.37213	.08622	.01354	.00212	.00094	-.00085
50.000	10.000	.58896	4.00000	20.00000	-.77864	.45747	.10518	.01839	.00307	.00051	-.00096
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(ZNHX17) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	10.000	.58981	2.00000	20.00000	-.53583	.44996	.09892	.02216	.00239	.00074	-.00121
3.500	12.000	.58835	4.00000	20.00000	-.91880	.52070	.12380	.02540	.00624	.00017	-.00015
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

DZ 7.500

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.500	10.000	.58978	2.00000	20.00000	-.71654	.45714	.10149	.02093	.00356	.00070	-.00101
7.500	12.000	.58999	4.00000	20.00000	-.86406	.52373	.12550	.02404	.00559	.00002	-.00042
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

DZ 10.000

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.000	10.000	.59142	2.00000	20.00000	-.82520	.46244	.10316	.01992	.00432	.00070	-.00084
10.000	12.000	.59107	4.00000	20.00000	-.81252	.53488	.12675	.02307	.00503	-.00010	-.00062
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

DZ 15.000

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.000	10.000	.59121	2.00000	20.00000	-.83998	.46368	.10350	.01893	.00455	.00059	-.00120
15.000	12.000	.59220	4.00000	20.00000	-.83206	.54052	.12819	.02194	.00520	-.00015	-.00075
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 A1: 0251 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 LCRB = .000 DX = 20.000  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CLM CBL  
 30.000 10.000 2.00000 20.00000 0.47466 0.1801 0.0433 0.0053 -0.00103  
 30.000 12.000 4.00000 20.00000 0.56162 0.2145 0.0601 -0.00028 -0.00084  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CLM CBL  
 45.000 10.000 2.00000 20.00000 0.48320 0.1805 0.0321 0.00018 -0.00088  
 45.000 12.000 4.00000 20.00000 0.57957 0.2117 0.0484 -0.00033 -0.00089  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CLM CBL  
 50.000 10.000 2.00000 20.00000 0.48115 0.1712 0.0346 0.00033 -0.00089  
 50.000 12.000 4.00000 20.00000 0.58066 0.2094 0.0502 -0.00029 -0.00078  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

ARC 14-120(CA23B) 747/1 A1: 0351 (ORBITER DATA) (ZNHX27) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 LCRB = .000 DX = .000  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CLM CBL  
 3.500 10.000 2.00000 20.00000 0.39555 0.05449 0.0893 0.00026 -0.00254  
 3.500 12.000 4.00000 20.00000 0.45935 0.08494 0.0824 -0.00104 -0.00219  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CLM CBL  
 7.500 10.000 2.00000 20.00000 0.38557 0.06466 0.0801 0.00007 -0.00233  
 7.500 12.000 4.00000 20.00000 0.46326 0.09592 0.0973 0.00098 -0.00223  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

CY CYN CBL  
 .00433 .00053 -0.00103  
 .00601 -0.00028 -0.00084  
 .00000 .00000 .00000

CY CYN CBL  
 .00321 .00018 -0.00088  
 .00484 -0.00033 -0.00089  
 .00000 .00000 .00000

CY CYN CBL  
 .00346 .00033 -0.00089  
 .00502 -0.00029 -0.00078  
 .00000 .00000 .00000

PARAMETRIC DATA

STAB = 5.000  
 ELEVON = .000  
 DX = .000  
 MACH = .600

CY CYN CBL  
 .00893 .00026 -0.00254  
 .00824 -0.00104 -0.00219  
 .00000 .00000 .00000

CY CYN CBL  
 .0801 0.00007 -0.00233  
 .08973 -0.00098 -0.00223  
 .08900 .00000 .00000





ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(ZNHX28) ( 17 OCT 75 )

REFERENCE DATA

DZ = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 .REF = 474.8100 IN. YMRP = .0000 IN. YO  
 .REF = 936.5800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHAC	DX	DY	CL	CD	CLM	CYN	CBL
.58533	2.00000	10.00000	.05297	.29927	.05338	.03197	-.00027	-.00238
.58669	4.00000	10.00000	.02953	.38144	.06826	.04104	-.00051	-.00236
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(ZNHX29) ( 17 OCT 75 )

REFERENCE DATA

DZ = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 .REF = 474.8100 IN. YMRP = .0000 IN. YO  
 .REF = 936.5800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHAC	DX	DY	CL	CD	CLM	CYN	CBL
.58965	2.00000	10.00000	.07085	.36973	.06018	.05095	-.00001	-.00235
.58806	4.00000	10.00000	.00873	.44062	.08157	.05506	-.00031	-.00309
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

REFERENCE DATA

DZ = 7.500  
 .REF = 10.000  
 .REF = 12.000  
 GRADIENT = .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHAC	DX	DY	CL	CD	CLM	CYN	CBL
.58770	2.00000	10.00000	-.01491	.38109	.06466	.04549	-.00024	-.00214
.58827	4.00000	10.00000	.04742	.45639	.08492	.04961	-.00075	-.00256
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = .000 DX = 10.000  
 DY = .000 MACH = .600

REFERENCE DATA

DZ = 15.000  
 .REF = 10.000  
 .REF = 12.000  
 GRADIENT = .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHAC	DX	DY	CL	CD	CLM	CYN	CBL
.58909	2.00000	10.00000	.09362	.38557	.06547	.04342	-.00046	-.00227
.58823	4.00000	10.00000	.06535	.46210	.08622	.04743	-.00103	-.00241
.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = .000 DX = 10.000  
 DY = .000 MACH = .600

REFERENCE DATA

GREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = .000  
 HREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 TORB = 8.000 DX = 10.000  
 SCALE = .0125 MACH = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 30.000 10.000 2.00000 10.00000 .05480 .39664 .06782 .04206  
 30.000 12.000 4.00000 10.00000 .05027 .48717 .09283 .04505  
 GRADIENT 10.000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 45.000 10.000 2.00000 10.00000 .06013 .40006 .06943 .04156  
 45.000 12.000 4.00000 10.00000 .11899 .50056 .09551 .04440  
 GRADIENT 10.000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 50.000 10.000 2.00000 10.00000 .05102 .40242 .06981 .04125  
 50.000 12.000 4.00000 10.00000 .07609 .50328 .09730 .04416  
 GRADIENT 10.000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

REFERENCE DATA

GREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = .000  
 HREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 TORB = 8.000 DX = 10.000  
 SCALE = .0125 MACH = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 3.500 10.000 2.00000 20.00000 .02299 .36934 .06168 .04544  
 3.500 12.000 4.00000 20.00000 .04884 .43558 .08135 .04694  
 GRADIENT 10.000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 7.500 10.000 2.00000 20.00000 .03582 .37643 .06374 .04264  
 7.500 12.000 4.00000 20.00000 .03591 .44438 .08291 .04545  
 GRADIENT 10.000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(ZNHX30) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA =  
 RUDDER =  
 LORB =  
 DY =

.000 STAB = 5.000  
 .000 ELEVON = .000  
 8.000 DX = 20.000  
 .000 MACH = .500

PARAMETRIC DATA

RUN NO. 0/0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
MACH	ALPHAO	DX	DY	CL	CD
10.000	10.000	20.00000	.05242	.38247	.06522
10.000	12.000	20.00000	.02600	.45086	.08404
	GRADIENT	.00000	.00000	.00000	.00000
RUN NO. 0/0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
MACH	ALPHAO	DX	DY	CL	CD
15.000	10.000	20.00000	.03261	.38214	.06533
15.000	12.000	20.00000	.02195	.45718	.08533
	GRADIENT	.00000	.00000	.00000	.00000
RUN NO. 0/0		RN/L = 3.29		GRADIENT INTERVAL = -5.00/ 5.00	
MACH	ALPHAO	DX	DY	CL	CD
30.000	10.000	20.00000	.04541	.39200	.06801
30.000	12.000	20.00000	.08552	.48377	.09179
	GRADIENT	.00000	.00000	.00000	.00000
RUN NO. 0/0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
MACH	ALPHAO	DX	DY	CL	CD
45.000	10.000	20.00000	.06524	.40161	.06927
45.000	12.000	20.00000	.09032	.49026	.09388
	GRADIENT	.00000	.00000	.00000	.00000
RUN NO. 0/0		RN/L = 3.30		GRADIENT INTERVAL = -5.00/ 5.00	
MACH	ALPHAO	DX	DY	CL	CD
50.000	10.000	20.00000	.00144	.40091	.06955
50.000	12.000	20.00000	.06742	.50275	.09626
	GRADIENT	.00000	.00000	.00000	.00000

CY .00771 CYN .00006 CBL .00230  
 .00802 .00052 .00271  
 .00000 .00000 .00000

CY .00745 CYN .00014 CBL .00217  
 .00808 .00057 .00276  
 .00000 .00000 .00000

CY .00737 CYN .00040 CBL .00238  
 .00882 .00098 .00219  
 .00000 .00000 .00000

CY .00707 CYN .00064 CBL .00237  
 .00867 .00109 .00227  
 .00000 .00000 .00000

CY .00735 CYN .00047 CBL .00236  
 .00883 .00111 .00220  
 .00000 .00000 .00000



REFERENCE DATA

SIZEF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = 0000 IN. YO  
 RREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = 20.0000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	8.000	ALPHA	2.00000	DX	20.00000	DY	.03430	CL	.27510	CD	.04961	CLM	.03120	CY	.00717	CYN	.00030	CBL	-.00172
3.500	MACH	.58478	ALPHA	4.00000	DX	20.00000	DY	.11658	CL	.33292	CD	.06042	CLM	.03871	CY	.00701	CYN	-.00003	CBL	-.00224
3.500	GRADIENT	.00000	ALPHA	.00000	DX	.00000	DY	.00000	CL	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	8.000	ALPHA	2.00000	DX	20.00000	DY	.05331	CL	.28123	CD	.05023	CLM	.02991	CY	.00714	CYN	.00017	CBL	-.00185
7.500	MACH	.58500	ALPHA	4.00000	DX	20.00000	DY	.08012	CL	.33913	CD	.06124	CLM	.03785	CY	.00712	CYN	-.00005	CBL	-.00233
7.500	GRADIENT	.00000	ALPHA	.00000	DX	.00000	DY	.00000	CL	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

OZ	ALPHA	8.000	ALPHA	2.00000	DX	20.00000	DY	.07032	CL	.28603	CD	.05039	CLM	.02916	CY	.00713	CYN	.00007	CBL	-.00202
10.000	MACH	.58711	ALPHA	4.00000	DX	20.00000	DY	.05234	CL	.34346	CD	.06181	CLM	.03725	CY	.00717	CYN	-.00007	CBL	-.00237
10.000	GRADIENT	.00000	ALPHA	.00000	DX	.00000	DY	.00000	CL	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	8.000	ALPHA	2.00000	DX	20.00000	DY	.07484	CL	.28787	CD	.05031	CLM	.02878	CY	.00707	CYN	.00008	CBL	-.00193
15.000	MACH	.58715	ALPHA	4.00000	DX	20.00000	DY	.02941	CL	.34870	CD	.05247	CLM	.03678	CY	.00740	CYN	-.00002	CBL	-.00254
15.000	GRADIENT	.00000	ALPHA	.00000	DX	.00000	DY	.00000	CL	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	8.000	ALPHA	2.00000	DX	20.00000	DY	.07432	CL	.29595	CD	.05264	CLM	.03026	CY	.00726	CYN	-.00016	CBL	-.00226
30.000	MACH	.58705	ALPHA	4.00000	DX	20.00000	DY	.06357	CL	.36524	CD	.05530	CLM	.03870	CY	.00667	CYN	-.00046	CBL	-.00224
30.000	GRADIENT	.00000	ALPHA	.00000	DX	.00000	DY	.00000	CL	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	8.000	ALPHA	2.00000	DX	20.00000	DY	.09486	CL	.29863	CD	.05336	CLM	.03062	CY	.00659	CYN	-.00023	CBL	-.00211
45.000	MACH	.58719	ALPHA	4.00000	DX	20.00000	DY	.06728	CL	.37648	CD	.06739	CLM	.03982	CY	.00727	CYN	-.00044	CBL	-.00246
45.000	GRADIENT	.00000	ALPHA	.00000	DX	.00000	DY	.00000	CL	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000



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DATE 23 MAR 76

TABLATED SOURCE DATA - CA238

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ARC 14-120(CA238) 747/1 AT1 0351 (ORBITTER DATA)

(ZNHX34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 6.000 DX = .000  
 .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.000	ALPHA0	8.000	ALPHAC	2.00000	CL	.29362	CD	.05110	CLM	.03705	CY	.00880	CYN	-.00046	CBL	-.00260
		ALPHA0	10.000	ALPHAC	4.00000	CL	.36715	CD	.06416	CLM	.04641	CY	.00836	CYN	-.00094	CBL	-.00277
		GRADIENT		ALPHAC	.00000	DY	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	45.000	ALPHA0	8.000	ALPHAC	2.00000	CL	.29754	CD	.05248	CLM	.03537	CY	.00805	CYN	-.00068	CBL	-.00265
		ALPHA0	10.000	ALPHAC	4.00000	CL	.37919	CD	.06661	CLM	.04500	CY	.00795	CYN	-.00095	CBL	-.00248
		GRADIENT		ALPHAC	.00000	DY	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.000	ALPHA0	8.000	ALPHAC	2.00000	CL	.29988	CD	.05269	CLM	.03508	CY	.00794	CYN	-.00058	CBL	-.00256
		ALPHA0	10.000	ALPHAC	4.00000	CL	.38230	CD	.06730	CLM	.04479	CY	.00828	CYN	-.00082	CBL	-.00265
		GRADIENT		ALPHAC	.00000	DY	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITTER DATA)

(ZNHY10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = 5.000  
 8.000 DX = .000  
 .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.500	ALPHA0	10.000	ALPHAC	2.00000	CL	.46595	CD	.10124	CLM	.02801	CY	.00406	CYN	.00046	CBL	-.00109
		ALPHA0	12.000	ALPHAC	4.00000	CL	.53870	CD	.12511	CLM	.03341	CY	.00528	CYN	-.00013	CBL	-.00053
		GRADIENT		ALPHAC	.00000	DY	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.500	ALPHA0	10.000	ALPHAC	2.00000	CL	.46870	CD	.10190	CLM	.02638	CY	.00389	CYN	.00044	CBL	-.00101
		ALPHA0	12.000	ALPHAC	4.00000	CL	.54574	CD	.12787	CLM	.03155	CY	.00517	CYN	-.00026	CBL	-.00068
		GRADIENT		ALPHAC	.00000	DY	.00000	CD	.00000	CLM	.00000	CY	.00000	CYN	.00000	CBL	.00000



ARC 14-120(CA239) 747/1 AT1 0251 (CPBITER DATA)

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000  
 BREF = 930.5800 IN. ZMRP = 375.0000 IN. ZO IORB = .000  
 SCALE = .0125 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .59450 ALPHA0 2.00000 CLM .02502  
 7.500 8.000 .03111 DY .00000 CD .08028  
 3.500 10.000 -.06423 DX .00000 CL .35204  
 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .59261 ALPHA0 2.00000 CLM .02238  
 7.500 8.000 .01798 DY .00000 CD .08069  
 .59204 10.000 -.04063 DX .00000 CL .35307  
 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .59174 ALPHA0 2.00000 CLM .02175  
 10.000 8.000 -.01436 DY .00000 CD .08084  
 .59204 10.000 -.07557 DX .00000 CL .35427  
 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .59103 ALPHA0 2.00000 CLM .02008  
 15.000 8.000 .07807 DY .00000 CD .08214  
 .59103 10.000 -.01760 DX .00000 CL .35606  
 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .59046 ALPHA0 2.00000 CLM .01835  
 30.000 8.000 .02985 DY .00000 CD .09426  
 .59054 10.000 -.08251 DX .00000 CL .35476  
 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .59085 ALPHA0 2.00000 CLM .01704  
 45.000 8.000 .04067 DY .00000 CD .09554  
 .59107 10.000 -.05439 DX .00000 CL .35973  
 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .59107 ALPHA0 2.00000 CLM .01704  
 45.000 8.000 .04067 DY .00000 CD .09554  
 .59107 10.000 -.05439 DX .00000 CL .35973  
 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH .59107 ALPHA0 2.00000 CLM .01704  
 45.000 8.000 .04067 DY .00000 CD .09554  
 .59107 10.000 -.05439 DX .00000 CL .35973  
 .00000 .00000 .00000 .00000 .00000 .00000

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(VNHM41) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

DZ = 45.000 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

MACH .50000  
 ALPHAAC 2.000  
 4.000  
 GRADIENT .50000  
 .00000

IORB 4.01317 DX -.07934 DY -.09718 CD .28000  
 3.94777 -.09778 -.14783 .35279 .08373  
 -.03270 -.00922 -.02532 .03640 .00514

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

MACH .50000  
 ALPHAAC 2.000  
 4.000  
 GRADIENT .50000  
 .00000

IORB 3.99721 DX -.08686 DY -.08635 CD .28209  
 3.94057 -.12072 -.14681 .35752 .08446  
 -.02832 -.01693 -.03023 .03772 .00534

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(VNHM42) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

DZ = 3.500 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH .30000  
 ALPHAAC 2.000  
 4.000  
 GRADIENT .30000  
 .00000

IORB 3.96366 DX -.01626 DY -.01679 CD .24783  
 3.93590 -.00129 -.02787 .30620 .06851  
 -.01388 .00849 -.00554 .02919 .00431

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH .30000  
 ALPHAAC 2.000  
 4.000  
 GRADIENT .30000  
 .00000

IORB 3.99447 DX -.06493 DY -.04520 CD .25897  
 3.98402 -.07572 -.02685 .31786 .06979  
 -.00522 -.00539 .00917 .02944 .00454

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .500

CLM .00782 CYN .00093 CBL -.00105  
 .01574 .00093 -.00092  
 .00396 .00021 -.00000 .00006

CLM .00757 CYN .00090 CBL -.00114  
 .01537 .00090 -.00091  
 .00390 .00023 .00000 .00011

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .300

CLM .01568 CYN .00073 CBL -.00040  
 .02255 .00070 -.00047  
 .00343 -.00006 -.00001 -.00003

CLM .01347 CYN .00050 CBL -.00048  
 .01997 .00071 -.00041  
 .00325 .00038 .00011 .00003

(VNM42) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITTER DATA)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 932.6900 IN. ZMRP = 375.0000 IN. ZO 1ORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = .000000 DY = .000 MACH = .300

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000 MACH .30000 1ORB 3.95201 DX -.00117 DY -.01635 CL .25472 CD .07000 CBL -.00084  
 ALPHA 2.000 3.99449 DX -.08873 DY -.04987 CL .32044 CD .07979 CBL -.00047  
 4.000 .02124 DX -.04378 DY -.01676 CL .03286 CD .00489 CBL .00019  
 GRADIENT .000000

RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000 MACH .30000 1ORB 4.00542 DX -.07846 DY -.02784 CL .26416 CD .07178 CBL -.00051  
 ALPHA 2.000 3.96126 DX -.04327 DY -.03544 CL .33075 CD .08097 CBL -.00083  
 4.000 -.02208 DX .01759 DY -.00380 CL .03330 CD .00460 CBL -.00016  
 GRADIENT .000000

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000 MACH .30000 1ORB 4.02939 DX -.11489 DY -.03594 CL .27456 CD .07425 CBL -.00097  
 ALPHA 2.000 3.97863 DX -.07696 DY -.04474 CL .34867 CD .08424 CBL -.00083  
 4.000 -.02538 DX .01896 DY -.00440 CL .03705 CD .00500 CBL .00007  
 GRADIENT .000000

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000 MACH .30000 1ORB 4.02411 DX -.09171 DY -.12238 CL .28098 CD .07544 CBL -.00073  
 ALPHA 2.000 3.98272 DX -.05811 DY -.10952 CL .35594 CD .08543 CBL -.00051  
 4.000 -.02069 DX .01680 DY .00643 CL .03748 CD .00500 CBL .00011  
 GRADIENT .000000

RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000 MACH .30000 1ORB 4.02982 DX -.09355 DY -.16157 CL .28410 CD .07587 CBL -.00050  
 ALPHA 2.000 3.97770 DX -.04024 DY -.13170 CL .35813 CD .08564 CBL -.00042  
 4.000 -.02606 DX .02676 DY .01493 CL .03702 CD .00488 CBL .00004  
 GRADIENT .000000

CY .00063 CYN .00035 CBL -.00084  
 .00144 .00043 -.00047  
 .00040 .00004 .00019  
 CLM .01200 CBL  
 .01912 CYN  
 .00356 .00003  
 CLM .01076 CBL  
 .01819 CYN  
 .00371 .00246  
 .00252 .00059  
 .00003 -.00001  
 CLM .00924 CBL  
 .01711 CYN  
 .00394 .00250  
 .00195 .00053  
 .00027 -.00005  
 CLM .00835 CBL  
 .01558 CYN  
 .00362 .00198  
 .00119 .00053  
 .00040 -.00006  
 CLM .00809 CBL  
 .00117 CYN  
 .00046 -.00006





ORIGINAL SOURCE DATA - CA23B

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.000	6.000	.59230	.00000	-.07540	-.47401	.28293	.07525	.00632	.00176	.00092	-.00087
45.000	8.000	.59324	2.00000	.00616	-.48236	.36228	.08573	.01523	.00174	.00075	-.00109
45.000	10.000	.59245	4.00000	-.16935	-.52115	.45028	.10447	.02121	.00266	.00043	-.00113
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	6.000	.59329	.00000	.04229	-.53067	.28567	.07547	.00616	.00154	.00086	-.00091
50.000	8.000	.59239	2.00000	-.15797	-.45502	.36357	.08629	.01485	.00182	.00083	-.00091
50.000	10.000	.59204	4.00000	-.20182	-.48963	.45185	.10491	.02060	.00258	.00043	-.00091
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	8.000	.58956	.00000	-1.54549	-.28840	.39564	.08390	.02127	.00468	.00105	-.00057
3.500	10.000	.59001	2.00000	-.75094	-.55882	.45578	.09996	.02781	.00455	.00064	-.00021
3.500	12.000	.59111	4.00000	.01750	-.58163	.52598	.12278	.03390	.00519	-.00004	-.00057
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAO	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.500	8.000	.58981	.00000	-2.01103	-.46973	.39563	.08553	.01856	.00396	.00087	-.00073
7.500	10.000	.59113	2.00000	-.37339	-.49652	.46036	.10016	.02612	.00452	.00067	-.00053
7.500	12.000	.59117	4.00000	-.02504	-.53884	.53183	.12455	.03199	.00548	-.00008	-.00064
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000











ARC 14-120(CA238) 747/1 ATI 02S1 (ORBITER DATA)

(ZNH013) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAO	ALPHAC	DX	DY	CL	CLM	CD	CY	CYN	CBL
45.000	6.000	.59017	.00000	.00000	-.01960	-.53810	.29372	.07465	.00866	.00127	.00098	-.00068
45.000	8.000	.59079	2.00000	.05543	.053705	.36866	.08519	.01724	.00086	.00143	.00086	-.00087
45.000	10.000	.59103	4.00000	.08046	-.55385	.45269	.10364	.02296	.00051	.00209	.00051	-.00079
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAO	ALPHAC	DX	DY	CL	CLM	CD	CY	CYN	CBL
50.000	6.000	.59036	.00000	.00000	.02183	-.48797	.29206	.07532	.00789	.00131	.00098	-.00064
50.000	8.000	.59152	2.00000	.052602	-.18551	.36978	.08628	.01642	.00090	.00135	.00090	-.00066
50.000	10.000	.59141	4.00000	.08359	-.56621	.45785	.10490	.02222	.00054	.00215	.00054	-.00056
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ARC 14-120(CA238) 747/1 ATI 02S1 (ORBITER DATA)

(ZNH020) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAO	ALPHAC	DX	DY	CL	CLM	CD	CY	CYN	CBL
3.500	4.000	.58802	.00000	.00000	-.05223	-.26345	.11198	.05485	.04559	.00274	.00074	-.00107
3.500	6.000	.58859	2.00000	.02453	-.02453	-.45158	.16309	.05660	.05006	.00314	.00079	-.00122
3.500	8.000	.58835	4.00000	.08535	-.08535	-.29278	.22196	.06184	.05735	.00355	.00083	-.00104
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	MACH	ALPHAO	ALPHAC	DX	DY	CL	CLM	CD	CY	CYN	CBL
7.500	4.000	.58707	.00000	.00000	-.10972	-.44775	.12113	.05545	.04303	.00262	.00076	-.00120
7.500	6.000	.58741	2.00000	.06173	-.06173	-.37930	.16475	.05733	.04732	.00328	.00084	-.00121
7.500	8.000	.58730	4.00000	.06510	-.06510	-.36577	.22543	.06251	.05533	.00390	.00084	-.00119
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600











ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ZMH023) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.5900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO.	0 / 0	RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA0	DX	CL
3.500	MACH	DY	CLM
3.500	.58722	-.22757	.05952
3.500	.58696	-.26402	.05978
	.58675	-.31779	.06929
	.60000	.00000	.00000
GRADIENT	.00000	.00000	.00000
			CY
			.00315
			.00319
			.00360
			.00054
			.00000
			.00076
			.00068
			.00091
			-.00101
			-.00125
			.00000
			CBL
			-.00091
			-.00101
			-.00125
			.00000

RUN NO.	0 / 0	RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA0	DX	CL
7.500	MACH	DY	CLM
7.500	.58592	-.26758	.04807
7.500	.58772	-.21541	.05775
7.500	.58744	-.25423	.06670
	.60000	.00000	.00000
GRADIENT	.00000	.00000	.00000
			CY
			.00303
			.00306
			.00301
			.00000
			.00075
			.00066
			.00038
			.00000
			CBL
			-.00115
			-.00111
			-.00138
			.00000

RUN NO.	0 / 0	RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA0	DX	CL
10.000	MACH	DY	CLM
10.000	.58720	-.32093	.05996
10.000	.58738	-.27487	.05666
10.000	.58743	-.34068	.06614
	.60000	.00000	.00000
GRADIENT	.00000	.00000	.00000
			CY
			.00279
			.00335
			.00324
			.00000
			.00073
			.00066
			.00041
			.00000
			CBL
			-.00115
			-.00130
			-.00144
			.00000

RUN NO.	0 / 0	RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA0	DX	CL
15.000	MACH	DY	CLM
15.000	.58887	-.27717	.06052
15.000	.58732	-.32458	.05661
15.000	.58698	-.31952	.06487
	.60000	.00000	.00000
GRADIENT	.00000	.00000	.00000
			CY
			.00285
			.00271
			.00322
			.00000
			.00080
			.00051
			.00039
			.00000
			CBL
			-.00112
			-.00139
			-.00144
			.00000

RUN NO.	0 / 0	RN/L = 3.31	GRADIENT INTERVAL = -5.00/ 5.00
DZ	ALPHA0	DX	CL
30.000	MACH	DY	CLM
30.000	.58737	-.26229	.06172
30.000	.58778	-.20880	.05344
30.000	.58784	-.26464	.06277
	.60000	.00000	.00000
GRADIENT	.00000	.00000	.00000
			CY
			.00241
			.00267
			.00296
			.00000
			.00071
			.00062
			.00029
			.00000
			CBL
			-.00132
			-.00138
			-.00153
			.00000





APC 14-120(CA23B) 747/1 A11 0251 (ORBITER DATA)

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
PUDDER = .000 ELEVON = .000  
LORB = 8.000 DX = .000  
DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

ALPHA0	MACH	ALPHAC	DX	DY	CL	CLM	CD	CY	CYN	CBL
3.500	.58688	.00000	-.08582	.17360	.31304	.05902	.06702	.00453	.00091	-.00090
3.500	.58753	2.00000	-.14166	-.01841	.33157	.06701	.08021	.00370	.00053	-.00100
3.500	.58754	4.00000	-.05494	-.02214	.41195	.07305	.09871	.00445	.00017	-.00144
	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA0	MACH	ALPHAC	DX	DY	CL	CLM	CD	CY	CYN	CBL
7.500	.58726	.00000	-.09264	.11948	.31324	.05762	.06765	.00380	.00073	-.00128
7.500	.58832	2.00000	-.09157	.02817	.37663	.06533	.08042	.00332	.00043	-.00127
7.500	.58763	4.00000	-.06110	.00034	.44998	.07157	.10134	.00456	-.00002	-.00130
	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA0	MACH	ALPHAC	DX	DY	CL	CLM	CD	CY	CYN	CBL
10.000	.58784	.00000	-.09040	.08861	.31397	.05658	.06802	.00307	.00059	-.00151
10.000	.58815	2.00000	-.03781	.05364	.37131	.06384	.08043	.00289	.00036	-.00138
10.000	.58774	4.00000	-.05054	.03091	.45594	.07046	.10338	.00487	-.00015	-.00117
	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA0	MACH	ALPHAC	DX	DY	CL	CLM	CD	CY	CYN	CBL
15.000	.58828	.00000	-.11195	.04068	.31176	.05539	.06865	.00369	.00064	-.00166
15.000	.58833	2.00000	-.06631	.03239	.37832	.06351	.08142	.00360	.00041	-.00183
15.000	.58759	4.00000	-.08560	-.02535	.46087	.06939	.10455	.00410	-.00024	-.00127
	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA0	MACH	ALPHAC	DX	DY	CL	CLM	CD	CY	CYN	CBL
30.000	.58726	.00000	-.13458	.04159	.31250	.05296	.07046	.00295	.00056	-.00162
30.000	.58915	2.00000	-.11840	.01715	.38439	.06119	.08417	.00308	.00036	-.00148
30.000	.58844	4.00000	-.17807	-.03594	.47982	.06634	.11039	.00399	-.00023	-.00108
	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00





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DATE 23 MAR 76 TABULATED SOURCE DATA - CA238 (ZNH027) ( 17 OCT 75 ) PAGE 437

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITTER DATA)

PARAMETRIC DATA

SREF = 2590.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVN = .000  
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = .000 DX = .000 MACH = .600  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA 8.000 ALPHA 8.000 CLM .04051  
 10.000 10.000 CL .31963 CD .05231  
 10.000 10.000 CLM .08776 DY .04699 .06500  
 10.000 10.000 CLM .06494 .04699 .06500  
 10.000 10.000 CLM .07448 .06433 .08665  
 GRADIENT .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA 8.000 ALPHA 8.000 CLM .03908  
 15.000 10.000 CL .31725 CD .05162  
 15.000 10.000 CLM .04284 DY .04109 .06454  
 15.000 10.000 CLM .09136 .04109 .06454  
 15.000 10.000 CLM .13410 .04469 .08809  
 GRADIENT .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA 8.000 ALPHA 8.000 CLM .03508  
 30.000 10.000 CL .32024 CD .05382  
 30.000 10.000 CLM .13749 DY .03346 .06747  
 30.000 10.000 CLM .10994 .06309 .06747  
 30.000 10.000 CLM .12824 .02846 .09335  
 GRADIENT .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA 8.000 ALPHA 8.000 CLM .03409  
 45.000 10.000 CL .32204 CD .05479  
 45.000 10.000 CLM .07774 DY .00509 .04334  
 45.000 10.000 CLM .08593 .07027 .06919  
 45.000 10.000 CLM .16555 .00382 .09638  
 GRADIENT .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA 8.000 ALPHA 8.000 CLM .03250  
 50.000 10.000 CL .31601 CD .05499  
 50.000 10.000 CLM .04160 DY .05879 .04220  
 50.000 10.000 CLM .10235 .05879 .04220  
 50.000 10.000 CLM .16359 .07356 .04573  
 GRADIENT .00000 .00000 .00000 .00000 .00000

ALPHA 8.000 ALPHA 8.000 CLM .03250  
 50.000 10.000 CL .31601 CD .05499  
 50.000 10.000 CLM .04160 DY .05879 .04220  
 50.000 10.000 CLM .10235 .05879 .04220  
 50.000 10.000 CLM .16359 .07356 .04573  
 GRADIENT .00000 .00000 .00000 .00000 .00000



(ZNH034) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO 1ORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = .000000 .000000 .000000 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.000	6.000	.58727	.00000	-.01533	-.05004	.2395	.04381	.02348	.00782	-.00077	-.00266
45.000	9.000	.58711	2.00000	-.12592	-.06051	.29739	.05231	.03553	.00811	-.00069	-.00266
45.000	10.000	.58752	4.00000	-.15392	-.00100	.37875	.06628	.04530	.00797	-.00096	-.00249
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO 1ORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = .000000 .000000 .000000 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	4.000	.58696	.00000	-.07973	.05157	.11481	.03600	.02780	.00754	-.00010	-.00205
3.500	5.000	.58770	2.00000	-.01208	.10413	.17249	.03858	.03437	.00724	-.00013	-.00195
3.500	8.000	.58780	4.00000	-.03682	.03346	.23150	.04434	.04281	.00688	-.00018	-.00200
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO 1ORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = .000000 .000000 .000000 DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO 1ORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = .000000 .000000 .000000 DY = .000 MACH = .600































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DATE 23 MAR 76 TABULATED SOURCE DATA - CA23B PAGE 453  
ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (ZNHX14) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHAO MACH ALPHAAC DX CL CLM CBL  
30.000 8.000 2.00000 10.00000 .54427 .36731 .08429 .01610  
30.000 10.000 4.00000 10.00000 -.55315 .44515 .10198 .02142  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHAO MACH ALPHAAC DX CL CLM CBL  
45.000 8.000 2.00000 10.00000 -.58631 .36993 .08531 .01521  
45.000 10.000 4.00000 10.00000 -.62227 .45985 .10474 .02053  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHAO MACH ALPHAAC DX CL CLM CBL  
50.000 8.000 2.00000 10.00000 -.57745 .37487 .08602 .01545  
50.000 10.000 4.00000 10.00000 -.62433 .45962 .10491 .02036  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHAO MACH ALPHAAC DX CL CLM CBL  
3.500 8.000 2.00000 10.00000 -.59402 .45294 .09745 .02438  
3.500 10.000 4.00000 10.00000 -.65242 .52051 .12159 .02350  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHAO MACH ALPHAAC DX CL CLM CBL  
7.500 8.000 2.00000 10.00000 -.66536 .46011 .10012 .02373  
7.500 10.000 4.00000 10.00000 -.65825 .53240 .12476 .02335  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = 10.000  
DY = .000 MACH = .600

CY .00117 CYN .00095 CBL -.00083  
.00146 .00057 -.00095  
.00000 .00000 .00000

CY .00132 CYN .00105 CBL -.00070  
.00124 .00048 -.00077  
.00000 .00000 .00000

CY -.00018 CYN .00074 CBL -.00068  
.00108 .00048 -.00061  
.00000 .00000 .00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 9.000 DX = 10.000  
DY = .000 MACH = .600

CY .00167 CYN .00085 CBL -.00057  
.00448 .00026 -.00004  
.00000 .00000 .00000

CY .00250 CYN .00077 CBL -.00055  
.00452 .00011 -.00021  
.00000 .00000 .00000

(ZNHX15) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)





ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA)

(ZNHX16) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YHRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZHRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	8.000	.58987	2.00000	20.00000	-.80299	.37213	.08622	.01354	.00212	.00094	-.00085
50.000	10.000	.58896	4.00000	20.00000	-.77864	.45747	.10518	.01839	.00307	.00051	-.00096
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA)

(ZNHX17) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YHRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZHRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	10.000	.58981	2.00000	20.00000	-.53583	.44996	.09892	.02216	.00239	.00074	-.00121
3.500	12.000	.58835	4.00000	20.00000	-.91880	.52070	.12380	.02540	.00624	.00017	-.00015
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA)

(ZNHX16) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YHRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZHRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.000	10.000	.59142	2.00000	20.00000	-.82520	.46244	.10316	.01592	.00432	.00070	-.00084
10.000	12.000	.59107	4.00000	20.00000	-.81252	.53488	.12675	.02307	.00503	-.00010	-.00062
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA)

(ZNHX17) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YHRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZHRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.000	10.000	.59121	2.00000	20.00000	-.83998	.46368	.10350	.01893	.00455	.00059	-.00120
15.000	12.000	.59220	4.00000	20.00000	-.83205	.54052	.12819	.02194	.00520	-.00015	-.00075
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

( ZNHX17 ) ( 17 OCT 75 )

TABULATED SOURCE DATA - CA23B  
ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

DATE 23 MAR 76

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
1CRB = 8.000 DX = 20.000  
DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. X0  
LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ 30.000 ALPHA0 10.000 MACH .59109  
30.000 10.000 10.000 ALPHAAC 2.00000  
30.000 12.000 12.000 4.00000  
GRADIENT .00000 .00000 .00000  
CL .47466  
CD .10600  
CLM .01801  
CLM .02145  
CLM .00000  
CY .00433  
CY .00533  
CY .00028  
CY .00000  
CBL -.00103  
CBL -.00084  
CBL .00000

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ 45.000 ALPHA0 10.000 MACH .59106  
45.000 10.000 10.000 ALPHAAC 2.00000  
45.000 12.000 12.000 4.00000  
GRADIENT .00000 .00000 .00000  
CL .48320  
CD .10690  
CLM .01805  
CLM .02117  
CLM .00000  
CY .00321  
CY .00018  
CY -.00033  
CY .00000  
CBL -.00088  
CBL -.00089  
CBL .00000

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ 50.000 ALPHA0 10.000 MACH .59044  
50.000 10.000 10.000 ALPHAAC 2.00000  
50.000 12.000 12.000 4.00000  
GRADIENT .00000 .00000 .00000  
CL .48115  
CD .10712  
CLM .01733  
CLM .02094  
CLM .00000  
CY .00346  
CY .00033  
CY -.00029  
CY .00000  
CBL -.00089  
CBL -.00078  
CBL .00000

( ZNHX27 ) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
1CRB = 8.000 DX = .000  
DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. X0  
LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ 3.500 ALPHA0 10.000 MACH .58756  
3.500 10.000 10.000 ALPHAAC 2.00000  
3.500 12.000 12.000 4.00000  
GRADIENT .00000 .00000 .00000  
CL .38555  
CD .06449  
CLM .05366  
CLM .05978  
CLM .00000  
CY .00883  
CY .00026  
CY -.00104  
CY .00000  
CBL -.00254  
CBL -.00218  
CBL .00000

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.500 ALPHA0 10.000 MACH .58562  
7.500 10.000 10.000 ALPHAAC 2.00000  
7.500 12.000 12.000 4.00000  
GRADIENT .00000 .00000 .00000  
CL .38557  
CD .06456  
CLM .05106  
CLM .06100  
CLM .00000  
CY .00801  
CY .00007  
CY -.00098  
CY .00000  
CBL -.00233  
CBL -.00223  
CBL .00000









TABULATED SOURCE DATA - CA238 (ZNHX29) ( 17 OCT 75 )

REFERENCE DATA

DZ = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0 BETA = .000 STAB = 5.000  
LREF = 474.8100 IN. YMRP = .0000 IN. Y0 RUDDER = .000 ELEVON = .000  
PREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0 TORB = .000 DX = 10.000  
SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
MACH .58839 ALPHA ALPHAC 0 / 0 ALPHAC 2.00000 DX 10.00000 CL .39664 CD .06782 CLM .04206 CBL  
30.000 10.000 2.00000 .05480 .48717 .00000 .09282 .04505 -.00242  
30.000 12.000 4.00000 .05027 .00000 .00000 .00000 .00000 .00000 .00223  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
MACH .58880 ALPHA ALPHAC 0 / 0 ALPHAC 2.00000 DX 10.00000 CL .40006 CD .06943 CLM .04156 CBL  
45.000 10.000 2.00000 .06013 .50055 .00000 .09651 .04440 -.00257  
45.000 12.000 4.00000 .11899 .00000 .00000 .00000 .00000 .00000 .00211  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
MACH .58627 ALPHA ALPHAC 0 / 0 ALPHAC 2.00000 DX 10.00000 CL .40242 CD .06981 CLM .04125 CBL  
50.000 10.000 2.00000 .05102 .50328 .00000 .09730 .04416 -.00213  
50.000 12.000 4.00000 .07609 .00000 .00000 .00000 .00000 .00000 .00211  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 ATI 0351 (ORBITER DATA) (ZNHX30) ( 17 OCT 75 )  
BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
TORB = .000 DX = 20.000  
DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
MACH .58428 ALPHA ALPHAC 0 / 0 ALPHAC 2.00000 DX 20.00000 CL .36934 CD .06168 CLM .04544 CBL  
3.500 10.000 2.00000 .02299 .43558 .00000 .08135 .04694 -.00221  
3.500 12.000 4.00000 .04884 .00000 .00000 .00000 .00000 .00000 .00212  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
MACH .58532 ALPHA ALPHAC 0 / 0 ALPHAC 2.00000 DX 20.00000 CL .37643 CD .06374 CLM .04264 CBL  
7.500 10.000 2.00000 .03582 .44438 .00000 .08291 .04545 -.00223  
7.500 12.000 4.00000 .03591 .00000 .00000 .00000 .00000 .00000 .00245  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(ZNHX30) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 PREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORB =  
 DY =

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 8.000 DX = 20.000  
 .000 MACH = .500

DZ	10.000	ALPHA0	0/ 0	RN/L =	3.30	GRADIENT INTERVAL =	-5.00/	5.00	CY	.00771	CYN	.00006	CBL	-.00230
10.000	MACH	ALPHAC	DX	DY	CL	CD	CLM							
	.58700	2.00000	20.00000	.05242	.38247	.06522	.04089							
	.58651	4.00000	20.00000	.02600	.45686	.08404	.04439							
	.00000	.00000	.00000	.00000	.00000	.00000	.00000							

DZ	15.000	ALPHA0	0/ 0	RN/L =	3.30	GRADIENT INTERVAL =	-5.00/	5.00	CY	.00745	CYN	.00014	CBL	-.00217
15.000	MACH	ALPHAC	DX	DY	CL	CD	CLM							
	.58572	2.00000	20.00000	.03261	.38214	.06533	.03918							
	.58560	4.00000	20.00000	.02195	.45718	.08533	.04337							
	.00000	.00000	.00000	.00000	.00000	.00000	.00000							

DZ	30.000	ALPHA0	0/ 0	RN/L =	3.29	GRADIENT INTERVAL =	-5.00/	5.00	CY	.00737	CYN	.00040	CBL	-.00238
30.000	MACH	ALPHAC	DX	DY	CL	CD	CLM							
	.58806	2.00000	20.00000	.04541	.38200	.06801	.03954							
	.58578	4.00000	20.00000	.08552	.48377	.09179	.04267							
	.00000	.00000	.00000	.00000	.00000	.00000	.00000							

DZ	45.000	ALPHA0	0/ 0	RN/L =	3.30	GRADIENT INTERVAL =	-5.00/	5.00	CY	.00707	CYN	.00064	CBL	-.00237
45.000	MACH	ALPHAC	DX	DY	CL	CD	CLM							
	.58763	2.00000	20.00000	.06524	.40161	.06927	.04036							
	.58716	4.00000	20.00000	.09032	.49026	.09388	.04303							
	.00000	.00000	.00000	.00000	.00000	.00000	.00000							

DZ	50.000	ALPHA0	0/ 0	RN/L =	3.30	GRADIENT INTERVAL =	-5.00/	5.00	CY	.00735	CYN	.00047	CBL	-.00236
50.000	MACH	ALPHAC	DX	DY	CL	CD	CLM							
	.58729	2.00000	20.00000	-.00144	.40091	.06955	.04051							
	.58764	4.00000	20.00000	.06742	.50275	.09626	.04300							
	.00000	.00000	.00000	.00000	.00000	.00000	.00000							





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ARC 14-120(CA238) 747/1 AT1 03S1 (ORBITTER DATA)

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO.	0/0	RN/L	3.29	GRADIENT INTERVAL = -5.00/ 5.00	BETA =	STAB =	5.000
DZ	ALPHA0	ALPHAC	DX	DY	CL	CD	CLM
30.000	8.000	2.00000	.00000	-.03707	.29382	.05110	.03705
30.000	10.000	4.00000	.00000	-.08604	.36715	.06416	.04641
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	0/0	RN/L	3.30	GRADIENT INTERVAL = -5.00/ 5.00	BETA =	STAB =	5.000
DZ	ALPHA0	ALPHAC	DX	DY	CL	CD	CLM
45.000	8.000	2.00000	.00000	-.05594	.29754	.05248	.03537
45.000	10.000	4.00000	.00000	-.06247	.37919	.06661	.04500
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	0/0	RN/L	3.30	GRADIENT INTERVAL = -5.00/ 5.00	BETA =	STAB =	5.000
DZ	ALPHA0	ALPHAC	DX	DY	CL	CD	CLM
50.000	8.000	2.00000	.00000	-.01817	.29988	.05269	.03508
50.000	10.000	4.00000	.00000	-.04502	.38230	.06730	.04479
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	0/0	RN/L	3.34	GRADIENT INTERVAL = -5.00/ 5.00	BETA =	STAB =	5.000
DZ	ALPHA0	ALPHAC	DX	DY	CL	CD	CLM
3.500	10.000	2.00000	-.01257	.00000	.46595	.10124	.02801
3.500	12.000	4.00000	-.01220	.00000	.53870	.12511	.03341
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO.	0/0	RN/L	3.34	GRADIENT INTERVAL = -5.00/ 5.00	BETA =	STAB =	5.000
DZ	ALPHA0	ALPHAC	DX	DY	CL	CD	CLM
7.500	10.000	2.00000	-.02550	.00000	.46870	.10190	.02638
7.500	12.000	4.00000	-.04969	.00000	.54574	.12787	.03155
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA  
 .000 STAB = 5.000  
 .000 ELEVON = .000  
 6.000 DX = .000  
 .000 MACH = .600

PARAMETRIC DATA  
 .000 STAB = 5.000  
 .000 ELEVON = .000  
 6.000 DX = .000  
 .000 MACH = .600

PARAMETRIC DATA  
 .000 STAB = 5.000  
 .000 ELEVON = .000  
 8.000 DX = .000  
 .000 MACH = .600

PARAMETRIC DATA  
 .000 STAB = 5.000  
 .000 ELEVON = .000  
 8.000 DX = .000  
 .000 MACH = .600



DATE 23 MAR 76 TABULATED SOURCE DATA - CA23B ARC 14-120(CA23B) 747/1 AT1 0251 (OPBITER DATA) (ZNYH13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000
LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000
BREF = 936.5800 IN. ZMRP = 375.0000 IN. ZO LORB = .000 DX = .000
SCALE = .0125 .00000 .00000 .00000 .00000 .00000 MACH = .600

PARAMETRIC DATA

Table with columns: RUN NO., ALPHA, MACH, ALPHAC, DX, DY, CL, CD, CLM, CLM, CY, CYN, CBL. It contains data for four different runs, each with multiple data points for various parameters.

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ZNHY13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	8.000	.59144	2.00000	-.17655	.00000	.37034	.08645	.01628	.00144	.00088	.00071
50.000	10.000	.59135	4.00000	-.17839	.00000	.45889	.10528	.02208	.00220	.00051	.00064
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(ZNHY18) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	8.000	.59076	2.00000	-.15123	10.00000	.35752	.07938	.02468	.00330	.00036	.00341
3.500	10.000	.59178	4.00000	-.09423	10.00000	.41893	.09457	.03278	.00173	.00094	.00624
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.500	8.000	.59084	2.00000	-.21204	10.00000	.36204	.08102	.02237	.00189	.00017	.00303
7.500	10.000	.59380	4.00000	-.05023	10.00000	.42836	.09664	.02304	.00138	.00065	.00501
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.000	8.000	.59145	2.00000	-.18453	10.00000	.36214	.08140	.02145	.00249	.00007	.00304
10.000	10.000	.59157	4.00000	-.08798	10.00000	.43217	.09767	.02814	.00136	.00067	.00463
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.000	8.000	.59100	2.00000	-.22222	10.00000	.36381	.08212	.02031	.00235	.00024	.00203
15.000	10.000	.59135	4.00000	-.08119	10.00000	.43741	.09913	.02687	.00137	.00037	.00387
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600



ARC 14-120(CA23B) 747/1 AT1 02S1 (CPBITER DATA) (ZMHY18) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 30.000 8.000 2.00000 2.00000 -1.18323 10.00000 .36819 .08453 .01764 .00059  
 30.000 10.000 4.00000 4.00000 -1.12907 10.00000 .45034 .10305 .02369 -.00001  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 45.000 8.000 2.00000 2.00000 -0.7926 10.00000 .37593 .08658 .01628 .00070  
 45.000 10.000 4.00000 4.00000 -0.6855 10.00000 .46304 .10574 .02205 .00017  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 50.000 8.000 2.00000 2.00000 -0.4244 10.00000 .37428 .08683 .01558 .00075  
 50.000 10.000 4.00000 4.00000 -1.0545 10.00000 .46487 .10526 .02144 .00015  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 3.500 10.000 2.00000 2.00000 -1.32373 10.00000 .45972 .09740 .02900 .00308  
 3.500 12.000 4.00000 4.00000 -1.20066 10.00000 .54545 .12638 .04499 .00076  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0 ALPHAC DX DY CL CD CLM CBL  
 7.500 10.000 2.00000 2.00000 -1.21857 10.00000 .47285 .10040 .02737 .00310  
 7.500 12.000 4.00000 4.00000 -1.12611 10.00000 .54977 .12770 .03278 .00160  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = 5.000  
 6.000 DX = .000  
 10.000 MACH = .600

CY CYN CBL  
 .00216 .00059 -.00213  
 .00174 -.00001 -.00270  
 .00000 .00000 .00000

CY CYN CBL  
 .00197 .00070 -.00168  
 .00219 .00017 -.00197  
 .00000 .00000 .00000

CY CYN CBL  
 .00218 .00075 -.00143  
 .00214 .00015 -.00174  
 .00000 .00000 .00000

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = 5.000  
 8.000 DX = .000  
 10.000 MACH = .600

CY CYN CBL  
 .00308 .00102 -.00428  
 .00076 .00112 -.00677  
 .00000 .00000 .00000

CY CYN CBL  
 .00310 .00068 -.00370  
 .00160 .00101 -.00552  
 .00000 .00000 .00000

ARC 14-120(CA23B) 747/1 AT1 02S1 (CPBITER DATA) (ZMHY19) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(ZMHY19) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0090 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0  
 .59041 2.00000 DX DY CL CD CLM  
 .59147 4.00000 -.14628 10.00000 .47658 .10247 .02625  
 .00000 .00000 -.04328 10.00000 .55278 .12833 .03122  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000

BETA  
 RUDDER =  
 LORB =  
 DY =

CY CYN CBL  
 .00308 -.00046 -.00341  
 .00223 -.00097 -.00465  
 .00000 .00000 .00000

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = 5.000  
 8.000 DX = .000  
 19.000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0  
 .59203 2.00000 DX DY CL CD CLM  
 .59136 4.00000 -.16675 10.00000 .47248 .10366 .02439  
 .00000 .00000 -.09205 10.00000 .55626 .13084 .02957  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000

CY CYN CBL  
 .00238 -.00015 -.00262  
 .00282 -.00073 -.00356  
 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0  
 .59188 2.00000 DX DY CL CD CLM  
 .59160 4.00000 -.20224 10.00000 .47936 .10512 .02217  
 .00000 .00000 -.15182 10.00000 .57558 .13678 .02655  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000

CY CYN CBL  
 .00257 .00007 -.00185  
 .00230 -.00058 -.00210  
 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0  
 .59169 2.00000 DX DY CL CD CLM  
 .00000 .00000 .48783 .10771 .02091  
 .58854 .14017 .02478  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000

CY CYN CBL  
 .00291 .00009 -.00156  
 .00404 -.00025 -.00159  
 .00000 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 MACH ALPHA0  
 .59162 2.00000 DX DY CL CD CLM  
 .59150 4.00000 -.10655 10.00000 .48927 .10538 .02953  
 .00000 .00000 -.11757 10.00000 .55102 .14018 .02413  
 GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000

CY CYN CBL  
 .00287 .00017 -.00118  
 .00328 -.00045 -.00138  
 .00000 .00000 .00000





ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

(ZNYH32) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
30.000	8.000	.58737	2.00000	-.18137	10.00000	.29528	.05168	-.03600	.00679	-.00062	-.00300
30.000	10.000	.58771	4.00000	-.13826	10.00000	.35787	.06487	.04591	.00848	-.00121	-.00390
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
45.000	8.000	.58761	2.00000	-.06798	10.00000	.29865	.05300	.03434	.00635	-.00067	-.00262
45.000	10.000	.58805	4.00000	-.11714	10.00000	.37639	.06709	.04407	.00630	-.00107	-.00319
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	8.000	.58823	2.00000	-.02004	10.00000	.30019	.05355	.03407	.00662	-.00060	-.00273
50.000	10.000	.58899	4.00000	-.07956	10.00000	.38190	.06799	.04289	.00643	-.00098	-.00302
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	10.000	.58930	2.00000	.19113	10.00000	.37945	.05802	.05327	.00492	-.00189	-.00527
3.500	10.000	.58944	4.00000	-.15284	10.00000	.45430	.09071	.05842	.00485	-.00242	-.00825
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.500	10.000	.58945	2.00000	.10450	10.00000	.38275	.05152	.05101	.00575	-.00167	-.00468
7.500	12.000	.58992	4.00000	-.13202	10.00000	.45361	.08280	.05222	.00546	-.00229	-.00708
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

(ZNYH33) ( 17 OCT 75 )

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 6.000 DX = .000  
 10.000 MACH = .500

BETA =  
 RUDDER =  
 TORB =  
 DY =

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 8.000 DX = .000  
 10.000 MACH = .500

BETA =  
 RUDDER =  
 TORB =  
 DY =

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 8.000 DX = .000  
 10.000 MACH = .500

BETA =  
 RUDDER =  
 TORB =  
 DY =

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 8.000 DX = .000  
 10.000 MACH = .500

BETA =  
 RUDDER =  
 TORB =  
 DY =

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA =  
 RUDDER =  
 TORR =  
 DY =

PARAMETRIC DATA

.000 STAB = 5.000  
 .000 ELEVON = .000  
 8.000 DX = .000  
 10.000 MACH = .600

CY .00612 CYN -.00149 CBL -.00432  
 .00587 -.00218 -.00619  
 .00000 .00000 .00000

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH ALPHA0  
 10.000 2.00000  
 12.000 4.00000  
 GRADIENT .00000

DX DY CL CD CLM  
 -.20267 10.00000 .38563 .06391 .04918  
 -.11484 10.00000 .46337 .08427 .05469  
 .00000 .00000 .00000 .00000 .00000

DZ ALPHA0  
 15.000 2.00000  
 15.000 4.00000  
 GRADIENT .00000

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH ALPHA0  
 10.000 2.00000  
 12.000 4.00000  
 GRADIENT .00000

DX DY CL CD CLM  
 -.19234 10.00000 .38575 .06450 .04755  
 -.11584 10.00000 .46886 .08623 .05278  
 .00000 .00000 .00000 .00000 .00000

DZ ALPHA0  
 30.000 2.00000  
 30.000 4.00000  
 GRADIENT .00000

RUN NO. 0/0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

MACH ALPHA0  
 10.000 2.00000  
 12.000 4.00000  
 GRADIENT .00000

DX DY CL CD CLM  
 -.19577 10.00000 .39629 .06736 .04581  
 -.16472 10.00000 .49512 .09320 .04985  
 .00000 .00000 .00000 .00000 .00000

DZ ALPHA0  
 45.000 2.00000  
 45.000 4.00000  
 GRADIENT .00000

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH ALPHA0  
 10.000 2.00000  
 12.000 4.00000  
 GRADIENT .00000

DX DY CL CD CLM  
 -.17007 10.00000 .40287 .06933 .04440  
 -.20028 10.00000 .50389 .09574 .04797  
 .00000 .00000 .00000 .00000 .00000

DZ ALPHA0  
 50.000 2.00000  
 50.000 4.00000  
 GRADIENT .00000

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH ALPHA0  
 10.000 2.00000  
 12.000 4.00000  
 GRADIENT .00000

DX DY CL CD CLM  
 -.10670 10.00000 .40168 .06913 .04381  
 -.16871 10.00000 .50515 .09539 .04713  
 .00000 .00000 .00000 .00000 .00000

DZ ALPHA0  
 50.000 2.00000  
 50.000 4.00000  
 GRADIENT .00000

CY .00731 CYN -.00093 CBL -.00320  
 .00757 -.00199 -.00335  
 .00000 .00000 .00000

CY .00711 CYN -.00112 CBL -.00286  
 .00831 -.00168 -.00312  
 .00000 .00000 .00000

CY .00734 CYN -.00094 CBL -.00275  
 .00852 -.00148 -.00295  
 .00000 .00000 .00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITTER DATA)

(ZMHY34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA =  
 RUDDER =  
 IORB =  
 DY =

.000 STAB = 5.000  
 .000 ELEVON = .000  
 6.000 DX = .000  
 .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.500	ALPHA	8.000	ALPHAC	2.00000	DX	.16221	DY	.00000	CL	.27470	CD	.04687	CLM	.04766	CY	.00914	CYN	-.00023	CBL	-.00215
	3.500	GRADIENT	10.000		4.00000		.00123		.00000		.32934		.05713		.05781		.00908		-.00053		-.00257
					.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.500	ALPHA	8.000	ALPHAC	2.00000	DX	.05405	DY	.00000	CL	.27942	CD	.04759	CLM	.04337	CY	.00861	CYN	-.00050	CBL	-.00227
	7.500	GRADIENT	10.000		4.00000		-.00538		.00000		.33784		.05828		.05329		.00852		-.00065		-.00265
					.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	10.000	ALPHA	8.000	ALPHAC	2.00000	DX	.05454	DY	.00000	CL	.27899	CD	.04798	CLM	.04122	CY	.00854	CYN	-.00049	CBL	-.00230
	10.000	GRADIENT	10.000		4.00000		-.03900		.00000		.34175		.05890		.05164		.00847		-.00071		-.00276
					.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	15.000	ALPHA	8.000	ALPHAC	2.00000	DX	.05004	DY	.00000	CL	.28286	CD	.04860	CLM	.03829	CY	.00857	CYN	-.00061	CBL	-.00245
	15.000	GRADIENT	10.000		4.00000		-.05659		.00000		.34735		.06018		.04872		.00861		-.00065		-.00269
					.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.000	ALPHA	8.000	ALPHAC	2.00000	DX	.01989	DY	.00000	CL	.29362	CD	.05110	CLM	.03703	CY	.00879	CYN	-.00046	CBL	-.00260
	30.000	GRADIENT	10.000		4.00000		-.07747		.00000		.36717		.06415		.04644		.00835		-.00095		-.00278
					.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	45.000	ALPHA	8.000	ALPHAC	2.00000	DX	-.12500	DY	.00000	CL	.29761	CD	.05248	CLM	.03541	CY	.00806	CYN	-.00068	CBL	-.00265
	45.000	GRADIENT	10.000		4.00000		-.15488		.00000		.37329		.06659		.04508		.00796		-.00096		-.00248
					.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000		.00000

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

(ZNH40) ( 17 OCT 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
50.000	8.000	.58807	2.00000	-1.14372	.00000	.29889	.05268	.03513	.00795	-.00059	.00257
50.000	10.000	.58762	4.00000	-1.16752	.00000	.38229	.05728	.04486	.00828	-.00083	-.00265
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

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

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
3.500	5.829	.60000	2.00000	-0.00100	.06542	.24719	.06678	.01574	.00389	.00119	.00062
3.500	7.893	.60000	4.00000	-0.06036	.30555	.30555	.07483	.02359	.00427	.00119	-.00068
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

(ZNH40) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

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

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
7.500	5.881	.60000	2.00000	-0.05171	.06605	.25127	.06798	.01240	.00373	.00120	.00074
7.500	7.904	.60000	4.00000	-0.06693	.03934	.30965	.07580	.02062	.00372	.00113	-.00073
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

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

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
10.000	5.894	.60000	2.00000	-0.03693	.06764	.25729	.06864	.01203	.00430	.00132	-.00088
10.000	7.900	.60000	4.00000	-0.06667	.03278	.31489	.07658	.01995	.00394	.00116	-.00090
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

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

DZ	ALPHA0	MACH	ALPHAC	DX	DY	CL	CD	CLM	CY	CYN	CBL
15.000	5.869	.60000	2.00000	-0.05021	.06929	.25929	.06934	.01043	.00340	.00114	-.00080
15.000	7.899	.60000	4.00000	-0.03167	.02863	.32256	.07796	.01909	.00305	.00102	-.00074
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600









ARC 14-120(CA238) 747/1 AT1 02S1 (ORBITER DATA) (ZNMH42) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

RUN NO. 0/ 0 RN/L = 1.97 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000 ALPHA0 MACH ALPHA AC DX DY CL CLM CD CBL  
50.000 6.030 .30000 2.00000 -.09355 -.16157 .28410 .07587 .00809  
50.000 7.978 .30000 4.00000 -.04004 -.13170 .35813 .08564 .01499  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000  
BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 4.000 DX = .000  
DY = .000 MACH = .300

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 AT1 02S1 (CARRIER DATA) (FRH008) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

DZ = 3.500 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500 ALPHA0 MACH ALPHA AC DX DY CLM DCY DCBL  
.000 .10555 .000 .00234 .000 .00000 .00000 .00000 .00000 .00000  
2.000 .12877 .000 .00242 .000 .00074 .00000 .00014  
4.000 .14336 .000 .00331 .000 .00074 .00000 .00016  
GRADIENT -.01013 .00186 .00515 .00056 .00004  
BETA = .000 STAB = -1.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 7.500 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500 ALPHA0 MACH ALPHA AC DX DY CLM DCY DCBL  
.000 .09388 .000 .00133 .000 .00000 .00000 .00000 .00000 .00000  
2.000 .11009 .000 .00137 .000 .00177 .00000 .00018  
4.000 .12736 .000 .00204 .000 .00057 .00000 .00006  
GRADIENT -.00905 .00203 .00383 .00034 .00007  
BETA = .000 STAB = -1.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 10.000 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000 ALPHA0 MACH ALPHA AC DX DY CLM DCY DCBL  
.000 .08268 .000 .00057 .000 .00023 .00000 .00017  
2.000 .10229 .000 .00051 .000 .00070 .00000 .00060  
4.000 .12044 .000 .00161 .000 .00199 .00000 .00045  
GRADIENT -.01012 .00199 .00458 .00007 .00003  
BETA = .000 STAB = -1.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT.      XMRP = 1339.9000 IN. XC      BETA = .000      STAB = -1.000  
 LREF = 327.7800 IN.      YMRP = .0000 IN. YC      RUDDER = .000      ELEVON = 5.000  
 BREF = 2348.0400 IN.      ZMRP = 190.7500 IN. ZC      TORB = 6.000      DX = .000  
 SCALE = .0125                     DY = .000      MACH = .600

PARAMETRIC DATA

DZ = 15.000      RN/L = 3.35      GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.07210	.00001	.06500	-.00358	.00033	.00001
2.000	-.08796	.00031	.06520	-.00280	.00022	-.00064
4.000	-.10421	-.00046	.07791	-.00126	.00014	-.00061
GRADIENT	-.00871	.00214	.00465	.00009	.00000	.00000

DZ = 30.000      RN/L = 3.35      GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.05319	.00005	.03908	-.00455	.00039	.00081
2.000	-.06087	.00067	.04587	-.00194	-.00013	-.00046
4.000	-.08023	.00028	.05020	-.00036	-.00021	-.00047
GRADIENT	-.00744	.00231	.00420	.00055	-.00010	-.00016

DZ = 45.000      RN/L = 3.34      GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.04614	.00001	.02776	-.00327	.00014	.00061
2.000	-.04717	.00097	.03310	-.00106	-.00025	-.00019
4.000	-.05893	.00097	.03729	-.00138	.00000	-.00043
GRADIENT	-.00388	.00249	.00381	-.00002	.00001	-.00010

DZ = 50.000      RN/L = 3.33      GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.03210	.00052	.02380	-.00320	.00017	.00030
2.000	-.04836	.00095	.03091	-.00121	-.00025	-.00001
4.000	-.05571	.00093	.03328	-.00029	-.00016	-.00011
GRADIENT	-.00658	.00236	.00379	.00023	-.00003	.00005

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TABULATED SOURCE DATA - CA23B ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

REFERENCE DATA  
 SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 3.500	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
	.000	-.13655	-.00523	.16426	-.00372	.00042	.00004
	2.000	-.14898	-.00496	.17749	-.00269	-.00017	-.00035
	4.000	-.16919	-.00751	.19058	-.00355	.00023	-.00117
	GRADIENT	-.00884	.00168	.00800	-.00045	.00000	-.00014

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
	.000	-.12240	-.00384	.14403	-.00329	.00010	.00021
	2.000	-.13962	-.00404	.15587	-.00275	-.00031	-.00013
	4.000	-.15697	-.00581	.16492	-.00282	.00004	-.00077
	GRADIENT	-.00932	.00176	.00665	-.00038	.00003	-.00009

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
	.000	-.11033	-.00276	.12368	-.00549	.00039	.00060
	2.000	-.13503	-.00363	.14223	-.00246	-.00048	.00009
	4.000	-.14905	-.00468	.14815	-.00205	-.00014	-.00047
	GRADIENT	-.01036	.00177	.00754	-.00037	-.00008	-.00011

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
	.000	-.09567	-.00186	.10095	-.00554	.00046	.00042
	2.000	-.11732	-.00179	.11682	-.00344	-.00029	.00001
	4.000	-.13451	-.00292	.12135	-.00231	-.00001	-.00048
	GRADIENT	-.01041	.00199	.00652	-.00031	-.00007	-.00006

RN/L = 30.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
	.000	-.06075	-.00026	.05979	-.00470	.00037	.00053
	2.000	-.08230	-.00013	.07172	-.00177	-.00049	.00010
	4.000	-.09729	-.00054	.07681	-.00036	-.00056	-.00012
	GRADIENT	-.00981	.00218	.00568	-.00077	-.00019	-.00000

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(PNH009) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.05523	-.00024	.04414	-.00468	.00036	.00054
2.000	-.06879	.00002	.05318	-.00274	-.00012	.00014
4.000	-.07439	.00023	.05527	-.00075	-.00021	-.00031
GRADIENT	-.00547	.00237	.00421	.00049	-.00009	-.00006

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.04423	.00029	.03765	-.00281	.00006	.00012
2.000	-.05593	.00054	.04592	-.00173	-.00020	-.00052
4.000	-.06476	.00036	.04929	-.00032	-.00026	-.00045
GRADIENT	-.00581	.00227	.00433	-.00013	-.00003	-.00002

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(PNH010) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.11286	-.00405	.18564	.00011	-.00088	-.00032
2.000	-.15663	-.00735	.20337	.00032	-.00060	-.00085
4.000	-.17329	-.01171	.19996	.00038	-.00044	-.00012
GRADIENT	-.01506	.00078	.00757	-.00029	.00016	-.00003

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (PNH010) ( 17 OCT 75 )

REFERENCE DATA

SPEF = 5500.0000 50.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2349.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 .000 DCL -.10162 DCD -.00278 DCLM .16198 DCY -.00139 DCYN .00002 DCBL -.00041  
 2.000 DCL -.13822 DCD -.00598 DCLM .17688 DCY .00055 DCYN -.00037 DCBL -.00048  
 4.000 DCL -.15399 DCD -.00946 DCLM .17015 DCY .00089 DCYN -.00019 DCBL -.00008  
 GRADIENT -.01229 DCD .00103 DCLM .00628 DCY .00021 DCYN -.00001 DCBL .00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 .000 DCL -.10110 DCD -.00200 DCLM .14745 DCY -.00243 DCYN .00064 DCBL -.00041  
 2.000 DCL -.12613 DCD -.00506 DCLM .15980 DCY .00107 DCYN -.00021 DCBL -.00012  
 4.000 DCL -.14095 DCD -.00789 DCLM .15151 DCY .00155 DCYN -.00001 DCBL .00010  
 GRADIENT -.00991 DCD .00122 DCLM .00525 DCY .00064 DCYN -.00012 DCBL .00005

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 .000 DCL -.07934 DCD -.00093 DCLM .11951 DCY -.00201 DCYN .00059 DCBL -.00057  
 2.000 DCL -.10728 DCD -.00375 DCLM .13009 DCY .00066 DCYN -.00002 DCBL -.00030  
 4.000 DCL -.12250 DCD -.00604 DCLM .12085 DCY .00019 DCYN .00014 DCBL -.00048  
 GRADIENT -.01074 DCD .00142 DCLM .00457 DCY .00019 DCYN -.00007 DCBL .00006

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 .000 DCL -.04430 DCD -.00016 DCLM .06947 DCY -.00190 DCYN .00050 DCBL -.00032  
 2.000 DCL -.06592 DCD -.00165 DCLM .07426 DCY .00004 DCYN -.00022 DCBL -.00043  
 4.000 DCL -.08129 DCD -.00307 DCLM .06908 DCY .00037 DCYN -.00032 DCBL -.00031  
 GRADIENT -.00920 DCD .00197 DCLM .00414 DCY .00021 DCYN -.00016 DCBL .00008

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 .000 DCL -.02266 DCD .00022 DCLM .04514 DCY -.00251 DCYN .00049 DCBL -.00037  
 2.000 DCL -.04308 DCD -.00087 DCLM .04903 DCY .00018 DCYN -.00012 DCBL -.00023  
 4.000 DCL -.05672 DCD -.00135 DCLM .04648 DCY .00032 DCYN -.00017 DCBL -.00045  
 GRADIENT -.00846 DCD .00230 DCLM .00457 DCY .00035 DCYN -.00012 DCBL .00010



DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(PNH010) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SO.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.02216 .04028 -.00221 .00038  
 2.000 -.03970 -.00069 -.00104 -.00004  
 4.000 -.04830 -.00116 .04075 -.00022  
 GRADIENT -.00649 .00234 .00428 .00026 -.00010

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(PNH011) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SO.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.06531 .05315 -.00377 .00078  
 2.000 -.08273 .06314 -.00107 .00008  
 4.000 -.09594 .06641 -.00025 .00034  
 GRADIENT -.00859 .00184 .00474 .00039 -.00006

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.04655 .04231 -.00306 .00067  
 2.000 -.06634 .05405 -.00101 .00012  
 4.000 -.08388 .05634 .00058 .00016  
 GRADIENT -.01001 .00197 .00493 .00042 -.00008

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .500

DZ = 10.000 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCD	DCLM	DCY	DCYN	DCBL
.000	.00116	.04231	-.00232	.00049	.00014
2.000	-.00122	.05075	-.00070	-.00005	-.00047
4.000	-.07970	.04573	-.00028	-.00000	-.00002
GRADIENT	-.01048	.00089	.00016	-.00005	-.00011

DZ = 15.000 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCD	DCLM	DCY	DCYN	DCBL
.000	.00145	.03255	-.00114	.00002	.00007
2.000	-.05596	.04209	-.00026	-.00017	.00017
4.000	-.07111	.04527	-.00033	-.00005	-.00031
GRADIENT	-.00899	.00460	-.00013	.00005	-.00007

DZ = 30.000 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCD	DCLM	DCY	DCYN	DCBL
.000	.00082	.01749	-.00294	.00041	.00046
2.000	-.03442	.02622	-.00126	-.00008	.00001
4.000	-.04457	.02810	.00043	-.00001	-.00052
GRADIENT	-.00700	.00408	.00035	-.00006	-.00009

DZ = 45.000 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCD	DCLM	DCY	DCYN	DCBL
.000	.00065	.01036	-.00295	.00046	.00024
2.000	-.01583	.01629	-.00025	-.00004	-.00034
4.000	-.02664	.01970	.00032	-.00000	-.00035
GRADIENT	-.00667	.00376	.00032	-.00007	.00001

DZ = 50.000 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCD	DCLM	DCY	DCYN	DCBL
.000	.00060	.00792	-.00257	.00037	.00013
2.000	-.01008	.01311	.00030	-.00012	-.00039
4.000	-.02158	.01731	.00037	-.00000	-.00013
GRADIENT	-.00633	.00377	.00024	-.00004	.00009

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (PH013) ( 17 OCT 75 )

REFERENCE DATA

SPEF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.09258	-.00088	.12845	-.00620	.00269	-.00061
2.000	-.11841	-.00348	.13134	-.00261	.00192	-.00057
4.000	-.13707	-.00628	.12921	-.00232	.00187	-.00045
GRADIENT	-.01107	.00135	.00443	.00061	-.00016	-.00004

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.07850	-.00004	.10666	-.00547	.00248	-.00055
2.000	-.10629	-.00241	.11059	-.00382	.00212	-.00024
4.000	-.12075	-.00450	.10776	-.00314	.00202	-.00020
GRADIENT	-.01051	.00158	.00452	.00023	-.00007	.00001

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.07292	.00018	.03484	-.00490	.00221	-.00027
2.000	-.09562	-.00185	.09961	-.00406	.00206	-.00043
4.000	-.11148	-.00393	.09667	-.00293	.00190	-.00050
GRADIENT	-.00959	.00167	.00470	.00013	-.00003	-.00014

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.06040	.00073	.07532	-.00346	.00190	-.00091
2.000	-.08634	-.00105	.07970	-.00353	.00182	-.00041
4.000	-.09842	-.00281	.07831	-.00261	.00171	-.00047
GRADIENT	-.00945	.00181	.00499	-.00015	-.00000	.00003

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.02958	.00093	.04136	-.00232	.00108	-.00054
2.000	-.05327	-.00010	.04702	-.00153	.00075	-.00050
4.000	-.07101	-.00120	.04717	-.00024	.00042	-.00024
GRADIENT	-.01031	.00216	.00569	.00021	-.00012	-.00001

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(PNH013) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01683  
 -.03395  
 -.04956  
 -.00813

DCD  
 .00082  
 .00023  
 -.00041  
 .00239

DCLM  
 .02786  
 .03265  
 .03305  
 .00554

DCY  
 -.00315  
 -.00120  
 -.00013  
 .00040

DCBL  
 -.00037  
 -.00065  
 -.00023  
 -.00005

DCYN  
 .00095  
 .00052  
 .00025  
 -.00013

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01661  
 -.03049  
 -.04225  
 -.00636

DCD  
 .00068  
 .00013  
 -.00035  
 .00244

DCLM  
 .02473  
 .02797  
 .02873  
 .00524

DCY  
 -.00294  
 -.00138  
 .00014  
 .00041

DCBL  
 -.00018  
 -.00002  
 .00006  
 -.00002

DCYN  
 .00094  
 .00052  
 .00021  
 -.00014

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(PNH020) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.04246  
 -.06645  
 -.08292  
 -.01006

DCD  
 .00235  
 .00105  
 -.00036  
 .00202

DCLM  
 .00659  
 .01917  
 .02454  
 .00873

DCY  
 -.00190  
 -.00089  
 .00080  
 .00032

DCBL  
 -.00056  
 -.00040  
 -.00059  
 -.00009

DCYN  
 .00131  
 .00089  
 .00080  
 -.00008

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC ELEVON = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC GRADIENT = -.00071 DX = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.00082 MACH = .000 MACH = .600

PARAMETRIC DATA

DZ = 7.500 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA DCL DCLM DCD DCY DCYN DCBL  
 .000 -.03684 .00224 .00462 -.00197 .00125  
 2.000 -.05088 .00129 .01267 -.00034 .00084  
 4.000 -.06999 .00036 .01673 .00096 .00071  
 GRADIENT -.00824 .00223 .00727 .00037 -.00009

PARAMETRIC DATA

DZ = 10.000 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA DCL DCLM DCD DCY DCYN DCBL  
 .000 -.03309 .00235 .00169 -.00080 .00105  
 2.000 -.05028 .00172 .00977 .00082 .00071  
 4.000 -.06563 .00068 .01348 .00082 .00075  
 GRADIENT -.00833 .00228 .00719 .00005 -.00003

PARAMETRIC DATA

DZ = 15.000 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA DCL DCLM DCD DCY DCYN DCBL  
 .000 -.01681 .00232 -.00215 -.00218 .00126  
 2.000 -.04158 .00186 .00624 .00051 .00084  
 4.000 -.05537 .00133 .00998 .00002 .00084  
 GRADIENT -.00959 .00245 .00727 .00018 -.00006

PARAMETRIC DATA

DZ = 30.000 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA DCL DCLM DCD DCY DCYN DCBL  
 .000 -.00613 .00185 .00472 .00115 .00069  
 2.000 -.02210 .00150 .00197 .00063 .00043  
 4.000 -.03460 .00145 .00508 .00013 .00039  
 GRADIENT -.00707 .00260 .00669 .00010 -.00003

PARAMETRIC DATA

DZ = 45.000 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHA DCL DCLM DCD DCY DCYN DCBL  
 .000 .00245 .00116 .00250 .00185 .00064  
 2.000 -.01430 .00117 .00312 .00049 .00033  
 4.000 -.02004 .00123 .00475 .00033 .00020  
 GRADIENT -.00557 .00271 .00605 .00019 -.00006

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (PNH020) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
SCALE = .0125

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 50.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	.00665	.00092	-.00156	-.00252	.00073	.00005
2.000	-.01295	.00106	.00380	-.00068	.00037	-.00036
4.000	-.01506	.00119	.00491	.00043	.00018	-.00023
GRADIENT	-.00538	.00276	.00586	.00038	-.00009	-.00015

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC  
SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 3.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.04918	.00153	-.01013	-.00335	.00125	.00033
2.000	-.06906	.00159	.00511	.00057	.00051	-.00040
4.000	-.08588	.00042	.01119	.00107	.00066	-.00078
GRADIENT	-.00985	.00198	.00575	.00051	-.00010	-.00012

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

OZ = 7.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.04135	.00153	-.01487	-.00166	.00095	.00006
2.000	-.05641	.00136	-.00041	.00054	.00052	-.00017
4.000	-.07228	.00061	.00587	.00052	.00073	-.00074
GRADIENT	-.00891	.00202	.00661	.00065	-.00001	-.00004

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (PNH021) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(PNH021) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 50.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2349.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 10.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC .000 DCL -.03591 DCD .00147 DCLM -.01563 DCY -.00197 DCYN .00106 DCBL .00032  
 .000 .00147 -.01563 -.00197 .00057 .00017  
 2.000 -.05249 .00118 -.00162 .00075 .00085  
 4.000 -.06790 .00062 .00435 .00013 .00056  
 GRADIENT -.00867 .00204 .00642 .00003 .00000 .00007

RN/L = 15.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC .000 DCL -.01873 DCD .00151 DCLM -.01636 DCY -.00223 DCYN .00112 DCBL .00030  
 .000 .00151 -.01636 -.00223 .00081 .00079  
 2.000 -.04401 .00075 .00211 -.00081 .00093  
 4.000 -.06046 .00075 .00299 .00019 .00026  
 GRADIENT -.01111 .00206 .00626 .00011 .00000 .00017

RN/L = 30.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC .000 DCL -.01209 DCD .00046 DCLM -.01583 DCY -.00219 DCYN .00089 DCBL .00054  
 .000 .00046 -.01583 -.00219 .00067 .00036 .00020  
 2.000 -.02790 .00077 .00563 .00058 .00055 .00059  
 4.000 -.03976 .00053 .00053 .00055 .00055 .00009  
 GRADIENT -.00760 .00227 .00523 .00019 .00003 .00000

RN/L = 45.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC .000 DCL .00011 DCD -.00004 DCLM -.01283 DCY -.00351 DCYN .00123 DCBL .00076  
 .000 .00011 -.01283 -.00351 .00044 .00043 .00033  
 2.000 -.01323 .00036 .00496 .00043 .00060 .00020  
 4.000 -.02654 .00039 .00125 .00025 .00060 .00020  
 GRADIENT -.00734 .00236 .00432 .00045 .00011 .00008

RN/L = 50.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC .000 DCL .00591 DCD -.00015 DCLM -.01140 DCY -.00414 DCYN .00141 DCBL .00070  
 .000 .00591 -.01140 -.00414 .00038 .00054 .00050  
 2.000 -.00823 .00031 .00438 .00002 .00066 .00025  
 4.000 -.02275 .00037 .00114 .00007 .00066 .00025  
 GRADIENT -.00754 .00239 .00399 .00056 .00014 .00008

(PNH022) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 ICRB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC = .000 DCL = .00187 DCLM = .12552 DCY = .00410 DCBL = .00080  
 2.000 -.13755 -.00444 .13939 -.00331 -.00228 -.00024  
 4.000 -.15081 -.00777 .14060 -.00400 .00210 -.00035  
 GRADIENT -.00994 .00122 .00801 -.00033 -.00007 -.00003

RN/L = 7.500 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC = .000 DCL = .00086 DCLM = .10285 DCY = .00414 DCBL = .00052  
 2.000 -.12013 -.00330 .11539 -.00280 .00194 -.00033  
 4.000 -.13551 -.00625 .11620 -.00273 .00188 -.00040  
 GRADIENT -.01118 .00135 .00758 -.00001 -.00006 -.00005

RN/L = 10.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC = .000 DCL = .00020 DCLM = .08815 DCY = .00396 DCBL = .00019  
 2.000 -.10898 -.00251 .09336 -.00225 .00156 -.00041  
 4.000 -.12583 -.00527 .10007 -.00170 .00168 -.00042  
 GRADIENT -.01226 .00143 .00722 .00021 -.00004 -.00014

RN/L = 15.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC = .000 DCL = .00033 DCLM = .06768 DCY = .00503 DCBL = .00074  
 2.000 -.09029 -.00166 .07624 -.00284 .00195 -.00039  
 4.000 -.10787 -.00356 .07456 -.00131 .00172 -.00050  
 GRADIENT -.01088 .00173 .00596 .00057 -.00014 -.00002

RN/L = 30.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC = .000 DCL = .00088 DCLM = .03361 DCY = .00242 DCBL = .00071  
 2.000 -.05575 -.00024 .03923 -.00087 .00108 -.00062  
 4.000 -.06841 -.00132 .03821 -.00002 .00090 -.00051  
 GRADIENT -.00855 .00215 .00539 .00024 -.00011 -.00003



ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (PNH022) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC ELEVON = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC DX = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.00071 MACH = .600 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC = .000 DCL = -.01693 DCD = .00072 DCYM = .00103 DCBL = -.00020  
 .000 DCLM = .01933 DCY = -.00233 DCYN = .00103 DCBL = -.00020  
 2.000 DCL = -.03422 DCD = -.00011 DCY = -.00080 DCYN = .00050 DCBL = -.00025  
 4.000 DCL = -.04318 DCD = -.00071 DCY = .00089 DCYN = .00029 DCBL = .00003  
 GRADIENT = -.00651 DCD = .00234 DCY = .00045 DCYN = -.00014 DCBL = -.00002

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC = .000 DCL = -.01478 DCD = .00077 DCYM = .00093 DCBL = -.00036  
 .000 DCLM = .01739 DCY = -.00228 DCYN = .00093 DCBL = -.00036  
 2.000 DCL = -.03575 DCD = -.00012 DCY = -.00100 DCYN = .00052 DCBL = .00012  
 4.000 DCL = -.04217 DCD = -.00036 DCY = .00089 DCYN = .00028 DCBL = .00005  
 GRADIENT = -.00680 DCD = .00241 DCY = .00043 DCYN = -.00012 DCBL = .00002

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (PNH023) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC ELEVON = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC DX = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.00191 MACH = .600 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC = .000 DCL = -.07645 DCD = .00084 DCYM = .00247 DCBL = -.00081  
 .000 DCLM = .07329 DCY = -.00347 DCYN = .00247 DCBL = -.00081  
 2.000 DCL = -.10357 DCD = .00100 DCY = -.00279 DCYN = .00204 DCBL = -.00049  
 4.000 DCL = -.11748 DCD = -.00316 DCY = -.00191 DCYN = .00175 DCBL = -.00050  
 GRADIENT = -.01021 DCD = .00170 DCY = .00003 DCYN = -.00013 DCBL = -.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 ICRB = 6.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SPEF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2342.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BCIA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 7.500 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC .000 DCL .06310 DCD .00141 DCLM .05333 DCY .00402 DCYN .00229 DCBL .00072  
 2.000 .09007 .00050 .05878 .00307 .00196 .00039  
 4.000 .10463 .00214 .05758 .00271 .00188 .00044  
 GRADIENT .01033 .00181 .00530 .00003 .00006 .00001

RN/L = 10.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC .000 DCL .05449 DCD .00144 DCLM .04405 DCY .00407 DCYN .00225 DCBL .00061  
 2.000 .08259 .00004 .05046 .00284 .00193 .00068  
 4.000 .03302 .00153 .05003 .00250 .00190 .00053  
 GRADIENT .00958 .00195 .00573 .00003 .00004 .00006

RN/L = 15.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC .000 DCL .04159 DCD .00156 DCLM .03035 DCY .00405 DCYN .00216 DCBL .00027  
 2.000 .06168 .00055 .03581 .00336 .00202 .00050  
 4.000 .09106 .00069 .03733 .00235 .00187 .00038  
 GRADIENT .00992 .00214 .00593 .00007 .00002 .00011

RN/L = 30.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC .000 DCL .02030 DCD .00127 DCLM .01414 DCY .00266 DCYN .00114 DCBL .00002  
 2.000 .04768 .00053 .02034 .00166 .00095 .00016  
 4.000 .05462 .00018 .01999 .00059 .00083 .00028  
 GRADIENT .00853 .00243 .00570 .00016 .00003 .00015

RN/L = 45.000 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC .000 DCL .00887 DCD .00125 DCLM .00664 DCY .00176 DCYN .00094 DCBL .00081  
 2.000 .02639 .00065 .01130 .00091 .00045 .00007  
 4.000 .03340 .00043 .01198 .00073 .00033 .00004  
 GRADIENT .00608 .00249 .00558 .00016 .00010 .00011

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA) (PNH023) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA) (PNH024) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 50.000  
 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 .000 -.00964 .00109 .00572 -.00164 .00076 -.00016  
 2.000 -.02719 .00064 .00968 -.00081 .00042 .00008  
 4.000 -.03380 .00049 .01035 .00010 .00041 .00021  
 GRADIENT -.00599 .00255 .00540 .00008 -.00004 -.00009

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 3.500  
 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 .000 -.08219 -.00060 .05450 -.00451 .00145 .00021  
 2.000 -.09489 -.00067 .06027 -.00140 .00063 -.00070  
 4.000 -.11125 -.00238 .06615 -.00068 .00086 -.00070  
 GRADIENT -.00794 .00181 .00434 .00046 -.00010

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 7.500  
 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 .000 -.06109 .00006 .03964 -.00377 .00132 .00003  
 2.000 -.08394 -.00029 .04672 -.00215 .00075 .00030  
 4.000 -.09993 -.00158 .05250 -.00089 .00094 .00051  
 GRADIENT -.01033 .00185 .00464 .00023 -.00005

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(PNH024) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.05175	.00005	.03209	-.00496	.00161	.00045
2.000	-.07454	-.00013	.03931	-.00199	.00091	-.00016
4.000	-.09403	-.00133	.04528	-.00159	.00109	-.00038
GRADIENT	-.01125	.00191	.00472	.00035	-.00008	-.00005

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.04562	.00015	.02309	-.00466	.00146	.00040
2.000	-.06321	.00006	.02960	-.00278	.00110	-.00014
4.000	-.07857	-.00074	.03551	-.00140	.00115	-.00064
GRADIENT	-.00892	.00203	.00453	.00032	-.00003	-.00010

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.02051	.00023	.00745	-.00370	.00113	.00004
2.000	-.04117	.00023	.01683	-.0105	.00056	-.00016
4.000	-.05510	-.00020	.02139	-.00040	.00056	-.00039
GRADIENT	-.00933	.00215	.00491	.00033	-.00009	.00005

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.01176	-.00021	.00346	-.00333	.00098	.00036
2.000	-.02408	.00011	.00973	.00052	.00020	-.00045
4.000	-.03734	-.00024	.01337	.00076	.00025	-.00037
GRADIENT	-.00707	.00225	.00350	.00053	-.00014	-.00002

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.00796	-.00013	.00136	-.00267	.00086	.00007
2.000	-.02128	.00012	.00806	.00050	.00014	-.00055
4.000	-.03215	-.00020	.01261	.00023	.00034	-.00048
GRADIENT	-.00673	.00224	.00423	.00023	-.00008	.00002

REFERENCE DATA

SREF = 5500.0000 SO.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = -1.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = .000 DX = .000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

OZ = 3.500 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC DCL DCO DCLM DCY DCBL  
 .000 -.12027 -.00416 .10446 -.00360 .00060  
 2.000 -.12188 -.00386 .11722 -.00368 .00069  
 4.000 -.15207 -.00592 .13218 -.00245 .00057  
 GRADIENT -.09863 .00181 .00835 -.00021 .00004 .00013

OZ = 7.500 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC DCL DCO DCLM DCY DCBL  
 .000 -.09543 -.00268 .08536 -.00457 .00056  
 2.000 -.11434 -.00307 .09970 -.00388 .00073  
 4.000 -.13605 -.00483 .11197 -.00220 .00067  
 GRADIENT -.01083 .00172 .00808 .00010 -.00002 .00006

OZ = 10.000 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC DCL DCO DCLM DCY DCBL  
 .000 -.07664 -.00167 .07293 -.00546 .00034  
 2.000 -.11259 -.00268 .08912 -.00441 .00079  
 4.000 -.12595 -.00410 .09871 -.00171 .00063  
 GRADIENT -.01301 .00165 .00737 .00044 -.00010 .00048

OZ = 15.000 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC DCL DCO DCLM DCY DCBL  
 .000 -.06696 -.00107 .05582 -.00479 .00031  
 2.000 -.08887 -.00135 .06760 -.00307 .00053  
 4.000 -.10802 -.00306 .07815 -.00294 .00012  
 GRADIENT -.01094 .00176 .00701 -.00003 .00004 .00009

OZ = 30.000 RN/L = 3.3+ GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC DCL DCO DCLM DCY DCBL  
 .000 -.04201 -.00062 .02872 -.00405 .00024  
 2.000 -.06529 -.00086 .03956 -.00175 .00060  
 4.000 -.07740 -.00167 .04578 -.00119 .00079  
 GRADIENT -.00952 .00199 .00559 .00022 -.00004 .00009

DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(PNH025) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
.000  
2.000  
4.000  
GRADIENT

DCL  
-.02757  
-.04018  
-.05563  
-.00769

DCD  
-.00073  
-.00057  
-.00120  
.00214

DCY  
-.00328  
.00002  
-.00007  
.00031

DCLM  
.01714  
.02430  
.02994  
.00462

DCYN  
.00084  
.00012  
.00032  
-.00008

DCBL  
.00032  
-.00021  
-.00011  
.00005

BETA = .000 STAB = -1.000  
RUDDER = .000 ELEVON = .000  
TORB = 8.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 50.000

ALPHAC  
.000  
2.000  
4.000  
GRADIENT

DCL  
-.02328  
-.03329  
-.04848  
-.00698

DCD  
-.00086  
-.00072  
-.00110  
.00219

DCY  
-.00497  
-.00146  
.00024  
.00081

DCLM  
.01517  
.02209  
.02677  
.00432

DCYN  
.00115  
.00041  
.00027  
-.00017

DCBL  
.00063  
.00027  
-.00012  
-.00003

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(PNH027) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC  
.000  
2.000  
4.000  
GRADIENT

DCL  
-.10338  
-.11590  
-.13498  
-.00795

DCD  
-.00239  
-.00374  
-.00744  
.00144

DCY  
-.00787  
-.00159  
-.00398  
.00061

DCLM  
.13402  
.14247  
.14357  
.00663

DCYN  
.00286  
.00190  
.00182  
-.00022

DCBL  
.00028  
-.00160  
-.00016  
-.00019

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
TORB = 8.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA) (PNH027) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC      DCL      DCD      DCLM      DCY      DCYN      DCBL  
 .000      -.08771      -.00118      .11286      -.00540      .00224      -.00025  
 2.000      -.10785      -.00310      .12188      -.00287      .00182      -.00072  
 4.000      -.12598      -.00512      .12152      -.00323      .00174      -.00013  
 GRADIENT      -.00952      .00146      .00641      .00018      -.00008      -.00005

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC      DCL      DCD      DCLM      DCY      DCYN      DCBL  
 .000      -.07759      -.00337      .09354      -.00385      .00190      -.00063  
 2.000      -.10396      -.00277      .10908      -.00415      .00190      .00011  
 4.000      -.12214      -.00528      .10694      -.00266      .00174      -.00007  
 GRADIENT      -.01109      .00147      .00609      -.00006      .00001      .00005

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC      DCL      DCD      DCLM      DCY      DCYN      DCBL  
 .000      -.06292      .00009      .07802      -.00317      .00165      -.00079  
 2.000      -.08562      -.00164      .08407      -.00323      .00130      -.00042  
 4.000      -.10421      -.00371      .08245      -.00146      .00118      -.00024  
 GRADIENT      -.01027      .00175      .00535      .00007      -.00007      .00006

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC      DCL      DCD      DCLM      DCY      DCYN      DCBL  
 .000      -.03462      .00033      .04236      -.00213      .00106      -.00060  
 2.000      -.06006      -.00094      .04761      -.00173      .00081      -.00007  
 4.000      -.07095      -.00169      .04605      -.00091      .00087      -.00015  
 GRADIENT      -.00903      .00219      .00516      -.00003      -.00000      .00003

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC      DCL      DCD      DCLM      DCY      DCYN      DCBL  
 .000      -.01241      .00044      .02536      -.00124      .00057      -.00066  
 2.000      -.03534      -.00058      .03009      -.00003      .00005      -.00002  
 4.000      -.04593      -.00116      .02991      -.00006      .00024      .00003  
 GRADIENT      -.00235      .00230      .00538      -.00006      -.00003      .00009

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ARC 14-120(CA23B) 747/1 ATI 03S1 (CARRIER DATA) (PNH027) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC .000 DCL .02333 DCO .00018 DCLM .02664 DCY -.00182 DCYN .00050 DCBL -.00046  
.000 DCL -.03781 DCO .00069 DCLM .02725 DCY .00024 DCYN -.00003 DCBL -.00021  
4.000 DCL -.03986 DCO .00071 DCLM .02647 DCY .00032 DCYN .00014 DCBL -.00024  
GRADIENT -.00408 DCO .00256 DCLM .00420 DCY .00018 DCYN -.00005 DCBL -.00002

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
TORB = 8.000 DX = .000  
DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 03S1 (CARRIER DATA) (PNH034) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC .000 DCL .09176 DCO .00069 DCLM .07949 DCY -.00027 DCYN -.00007 DCBL -.00009  
.000 DCL -.10280 DCO .00127 DCLM .08225 DCY .00123 DCYN -.00020 DCBL -.00022  
4.000 DCL -.12045 DCO .00323 DCLM .07867 DCY .00152 DCYN -.00019 DCBL -.00042  
GRADIENT -.00562 DCO .00172 DCLM .00404 DCY .00011 DCYN .00002 DCBL -.00016

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
TORB = 6.000 DX = .000  
DY = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC .000 DCL .06582 DCO .00127 DCLM .05986 DCY -.00017 DCYN .00027 DCBL -.00076  
.000 DCL -.08938 DCO .00060 DCLM .06549 DCY .00033 DCYN .00019 DCBL -.00022  
4.000 DCL -.10548 DCO .00237 DCLM .06298 DCY .00004 DCYN .00039 DCBL -.00018  
GRADIENT -.00587 DCO .00179 DCLM .00502 DCY -.00031 DCYN .00008 DCBL .00006



ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(PNH034) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SO.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.05867 .05368 -.0091 .00050  
 2.000 -.08526 .03303 -.0034 .00034  
 4.000 -.09966 .05568 -.0037 .00060  
 GRADIENT -.01020 .00474 -.0022 .00007

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.05107 .04150 -.00166 .00099  
 2.000 -.06975 .04577 -.00043 .00084  
 4.000 -.08365 .04486 -.00025 .00106  
 GRADIENT -.00810 .00508 -.00000 .00006

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.02784 .02261 .00039 .00043  
 2.000 -.04641 .02591 .00071 .00012  
 4.000 -.05579 .02529 .00003 .00056  
 GRADIENT -.00694 .00491 -.00345 .00010

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.01240 .00096 .00050 .00008  
 2.000 -.02912 .00019 .00072 .00015  
 4.000 -.03841 .00061 .00061 .00002  
 GRADIENT -.00645 .00243 .00033 .00001

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.01233 .00062 .00102 .00030  
 2.000 -.02872 .00006 .00023 .00004  
 4.000 -.03597 .00032 .00081 .00002  
 GRADIENT -.00536 .00246 .00010 .00007

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ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(+NH035) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC .000 DCL -.05055 DCD .00248 DCYM .01200 DCBL -.00108  
 .000 -.07181 .00113 .00077 .00122  
 2.000 -.08455 -.00019 .00064 .00100  
 4.000 -.00845 .00203 .00033 .00117  
 GRADIENT .00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC .000 DCL -.03392 DCD .00258 DCYM .00436 DCBL -.00101  
 .000 -.06000 .00116 .00037 .00133  
 2.000 -.07521 .00029 .00068 .00104  
 4.000 -.01027 .00212 .00029 .00127  
 GRADIENT .00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC .000 DCL -.02751 DCD .00231 DCYM .00140 DCBL -.00039  
 .000 -.05020 .00115 .00015 .00129  
 2.000 -.06614 .00024 .00042 .00109  
 4.000 -.00961 .00218 .00011 .00137  
 GRADIENT .00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC .000 DCL -.02052 DCD .00214 DCYM .00152 DCBL -.00093  
 .000 -.04170 .00130 .00028 .00141  
 2.000 -.05669 .00056 .00094 .00157  
 4.000 -.00899 .00230 .00036 .00006  
 GRADIENT .00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC .000 DCL -.00986 DCD .00140 DCYM .00057 DCBL -.00012  
 .000 -.02676 .00080 .00009 .00020  
 2.000 -.03267 .00057 .00094 .00049  
 4.000 -.00565 .00249 .00010 .00003  
 GRADIENT .00000

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA) (PNH035) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
10°RB = 4.000 DX = .000  
DY = .000 MACH = .600

PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
.000 .00108 .00121 -.00477 .00043 .00032 -.00054  
2.000 -.02278 .00041 .00411 .00074 .00020 -.00040  
4.000 -.02533 .00029 .00499 .00124 .00027 -.00020  
GRADIENT -.00655 .00247 .00668 -.00015 .00003 .00001

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
.000 .00492 .00121 -.00517 .00071 .00033 -.00094  
2.000 -.02260 .00031 .00449 .00034 .00038 -.00074  
4.000 -.02448 .00022 .00491 .00106 .00033 -.00024  
GRADIENT -.00730 .00245 .00676 -.00027 .00004 .00010

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA) (PNH036) ( 18 MAR 76 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = 10.000 ELEVON = .000  
10°RB = 6.000 DX = .000  
DY = .000 MACH = .600

PN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
.000 .09419 .00025 .08192 .02635 .00126 .00277  
2.000 -.10389 -.00200 .07581 .02962 -.01764 .00324  
4.000 -.01041 .00288 .00505 .00142 -.00020 .00018  
GRADIENT

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
.000 .08320 .00036 .06576 .02823 .01815 .00296  
2.000 -.09558 .00089 .06187 .02938 -.01832 .00284  
4.000 .01375 .00312 .00617 .00036 -.00009 .00012  
GRADIENT

ARC 14-120(CA23B) 74/71 ATI 0351 (CARRIER DATA)

(PNH036) ( 18 MAR 76 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN. ZC

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.07242  
 -.09137  
 -.01204

DCD  
 .00062  
 -.00048  
 .00320

DCLM  
 .05972  
 .05734  
 .00693

DCY  
 .02850  
 .02973  
 .00041

DCBL  
 .00323  
 .00344  
 .00005

DCYN  
 -.01848  
 -.01847  
 -.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.06024  
 -.07264  
 -.00876

DCD  
 .00105  
 .00042  
 .00343

DCLM  
 .04830  
 .04530  
 .00661

DCY  
 .02887  
 .03031  
 .00051

DCBL  
 .00354  
 .00325  
 -.00020

DCYN  
 -.01873  
 -.01868  
 .00002

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.03298  
 -.04568  
 -.00891

DCD  
 .00121  
 .00113  
 .00371

DCLM  
 .02941  
 .02913  
 .00797

DCY  
 .03170  
 .03291  
 .00039

DCBL  
 .00401  
 .00374  
 -.00020

DCYN  
 -.02057  
 -.02037  
 .00010

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.02449  
 -.03794  
 -.00928

DCD  
 .00107  
 .00124  
 .00383

DCLM  
 .01978  
 .02071  
 .00858

DCY  
 .03214  
 .03458  
 .00101

DCBL  
 .00439  
 .00382  
 -.00034

DCYN  
 -.02106  
 -.02108  
 -.00002

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.03181  
 -.02547  
 .00061

DCD  
 .00105  
 .00154  
 .00399

DCLM  
 .02120  
 .01916  
 .00709

DCY  
 .03181  
 .03429  
 .00103

DCBL  
 .00395  
 .00374  
 -.00016

DCYN  
 -.02113  
 -.02093  
 .00009

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(PNH037) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 YMRP = 2348.0400 IN.  
 ZMRP = 100.7500 IN ZC  
 SCALE = .0125

BETA = .000  
 RUDDER = .000  
 IORR = 6.000  
 DY = .000  
 STAB = -1.000  
 ELEVON = .000  
 DX = .000  
 MACH = .600

PARAMETRIC DATA

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 3.500  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.07554 .00021 .06014 -.00285 .00080  
 2.000 -.09217 -.00011 .06301 -.00332 .00085  
 4.000 -.11111 -.00164 .06608 -.00125 .00096  
 GRADIENT .00957 .00179 .00010 .00004 .00009 .00004

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 7.500  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.05948 .00048 .04779 -.00458 .00143  
 2.000 -.07667 .00046 .04979 -.00231 .00091  
 4.000 -.09551 -.00090 .05515 -.00248 .00129  
 GRADIENT .00959 .00191 .00036 .00003 .00001 .00003

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 10.000  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.05398 .00058 .04192 -.00435 .00145  
 2.000 -.07804 .00014 .04670 -.00433 .00139  
 4.000 -.08896 -.00070 .05046 -.00325 .00145  
 GRADIENT .00942 .00194 .00355 .00022 .00005 .00005

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 15.000  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.04179 .00062 .03251 -.00487 .00175  
 2.000 -.06741 .00063 .03683 -.00310 .00139  
 4.000 -.08017 -.00016 .04108 -.00381 .00173  
 GRADIENT .01027 .00206 .00357 .00023 .00004 .00006

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 30.000  
 ALPHAC DCL DCLM DCD DCY DCYN DCBL  
 .000 -.02242 .00042 .01381 -.00411 .00112  
 2.000 -.04793 .00038 .02198 -.00158 .00046  
 4.000 -.05420 .00018 .02471 -.00213 .00082  
 GRADIENT .00802 .00220 .00415 .00000 .00003 .00002

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ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA) (PNH038) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.07588  
 -.09462  
 -.11251  
 -.00911

DCD  
 -.00041  
 -.00246  
 -.00474  
 .00161

DCLM  
 .11742  
 .11315  
 .10832  
 .00204

DCY  
 -.00034  
 .00114  
 .00245  
 .00031

DCYN  
 .00024  
 .00000  
 -.00033  
 -.00010

DCBL  
 -.00056  
 -.00057  
 -.00084  
 -.00015

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.06771  
 -.09095  
 -.10664  
 -.00968

DCD  
 -.00024  
 -.00199  
 -.00417  
 .00171

DCLM  
 .10640  
 .10403  
 .09920  
 .00244

DCY  
 .00020  
 .00077  
 .00158  
 -.00001

DCYN  
 .00042  
 .00012  
 -.00016  
 -.00010

DCBL  
 -.00073  
 -.00057  
 -.00066  
 -.00006

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.07253  
 -.07698  
 -.08483  
 -.00402

DCD  
 -.00042  
 -.00154  
 -.00325  
 .00199

DCLM  
 .08978  
 .09484  
 .07967  
 .00171

DCY  
 -.00043  
 .00080  
 .00071  
 -.00007

DCYN  
 .00035  
 .00008  
 .00009  
 -.00002

DCBL  
 -.00065  
 -.00053  
 -.00038  
 -.00001

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.02582  
 -.04724  
 -.06749  
 -.01037

DCD  
 .00031  
 -.00072  
 -.00177  
 .00218

DCLM  
 .04744  
 .04744  
 .04674  
 .00407

DCY  
 -.00145  
 -.00018  
 -.00053  
 -.00013

DCYN  
 .00056  
 .00014  
 .00023  
 -.00004

DCBL  
 -.00028  
 -.00022  
 -.00004  
 -.00002

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01004  
 -.03323  
 -.04379  
 -.00798

DCD  
 .00037  
 -.00026  
 -.00079  
 .00241

DCLM  
 .07808  
 .03038  
 .02902  
 .00447

DCY  
 -.00105  
 -.00210  
 .00062  
 .00306

DCYN  
 .00054  
 .00030  
 .00013  
 -.00008

DCBL  
 -.00072  
 -.00071  
 -.00041  
 -.00000

ARC 14-120(CA23B) 747/1 ATI 03S1 (CARRIER DATA)

(PNH038) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 .000 -.00820 .00056 .03507 -.00048 .00045  
 2.000 -.02403 -.00010 .02605 .00017 .00012  
 4.000 -.04047 -.00070 .02577 .00020 .00020  
 GRADIENT -.00802 .00238 .00441 -.00019 -.00002 .00016

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(PNH039) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 2.000 -.11837 -.00315 .12847 .03033 .01727  
 4.000 -.13802 -.00572 .13084 .03067 .01732  
 GRADIENT -.01239 .00246 .00930 .00011 .00003 .00012

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 2.000 -.10278 -.00208 .11360 .03185 .01852  
 4.000 -.11473 -.00371 .10793 .03403 .01928  
 GRADIENT -.00853 .00293 .00528 .00118 .00034 .00036

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DZ = 10.000

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 2.000 -.09368 -.00132 .10274 .03025 .01923  
 4.000 -.11934 -.00319 .09901 .03437 .01964  
 GRADIENT -.01539 .00281 .00625 .00085 .00021 .00013

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00



APC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA) (PNH039) ( 17 OCT 75 )

REFERENCE DATA

SPEF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.07877  
 -.09926  
 -.01280

DCD  
 -.00070  
 -.00198  
 .00311

DCY  
 .0341  
 .03481  
 .00049

DCLM  
 .08259  
 .07973  
 .00668

DCBL  
 .00381  
 .00353  
 -.00020

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.05492  
 -.06364  
 -.00692

DCD  
 .00039  
 -.00009  
 .00351

DCY  
 .03495  
 .03686  
 .00075

DCLM  
 .04813  
 .04576  
 .00693

DCBL  
 .00401  
 .00440  
 .00014

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.03315  
 -.04841  
 -.01019

DCD  
 .00061  
 .00054  
 .00372

DCY  
 .03538  
 .03631  
 .00025

DCLM  
 .03064  
 .03150  
 .00854

DCBL  
 .00410  
 .00366  
 -.00028

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.03217  
 -.04520  
 -.00907

DCD  
 .00067  
 .00059  
 .00371

DCY  
 .03454  
 .03622  
 .00058

DCLM  
 .02842  
 .02847  
 .00814

DCBL  
 .00403  
 .00394  
 -.00015

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .500

ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(PNH040) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVGN = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.06850	.00111	.06606	.00239	-.00034	-.001083
2.000	-.08363	-.00045	.07238	.00262	-.00053	-.00071
4.000	-.09951	-.00245	.06787	.00353	-.00066	-.00059
GRADIENT	-.00770	.00181	.00469	-.00007	-.00003	-.00002

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.05079	.00159	.05280	.00309	-.00090	-.00108
2.000	-.07586	-.00013	.06089	.00204	-.00050	-.00043
4.000	-.09062	-.00187	.05721	.00333	-.00066	-.00045
GRADIENT	-.00991	.00183	.00534	-.00030	.00011	.00008

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.04373	.00134	.04509	.00372	-.00107	-.00062
2.000	-.07057	-.00015	.05368	.00257	-.00071	-.00013
4.000	-.08332	-.00148	.04398	.00325	-.00063	-.00055
GRADIENT	-.00985	.00199	.00546	-.00047	.00016	-.00006

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.04724	.00100	.03787	.00174	-.00073	-.00072
2.000	-.05289	.00030	.04014	.00249	-.00056	-.00046
4.000	-.07027	-.00087	.03968	.00271	-.00044	-.00038
GRADIENT	-.00571	.00223	.00469	-.00012	.00012	.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
.000	-.02835	.00075	.01809	.00121	-.00005	-.00062
2.000	-.03651	.00041	.02112	.00143	-.00013	-.00006
4.000	-.04987	-.00016	.02163	.00088	.00023	-.00017
GRADIENT	-.00533	.00247	.00513	-.00044	.00012	.00003

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC LORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = -.00347 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 DCL -01897 DCD .00043 DCLM .01270 DCY .00068 DCYN .00025 DCBL -.00066  
 .000 .00026 .01445 .00123 .00005 -.00061  
 2.000 .00026 .01310 .00177 .00019 -.00031  
 4.000 .00347 .00434 -.00009 .00003 .00001  
 GRADIENT

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 DCL -01784 DCD .00032 DCLM .01213 DCY .00020 DCYN .00036 DCBL -.00075  
 .000 .00025 .01243 .00122 .00009 -.00090  
 2.000 .00039 .01069 .00231 .00011 -.00034  
 4.000 .00227 .00388 .00017 -.00002 .00002  
 GRADIENT

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC LORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = -.01093 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 DCL -115651 DCD -.00734 DCLM .20325 DCY .00021 DCYN -.00054 DCBL -.00084  
 2.000 -.17325 .19891 .00030 -.00039 -.00013  
 4.000 .00157 .00594 -.00017 .00007 .00030  
 GRADIENT

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 DCL -113814 DCD -.00597 DCLM .17674 DCY .00045 DCYN -.00032 DCBL -.00048  
 2.000 -.15385 .17012 .00081 -.00015 -.00008  
 4.000 .00201 .00480 -.00003 .00008 .00014  
 GRADIENT

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/ AT1 0251 (CARRIER DATA)

(PNHX10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC  
 2.000 DCL -1.12603 DCD -.00505 DCYM .00098 DCBL -.00012  
 4.000 DCLM .15970 DCY .00098 DCYN -.00017  
 GRADIENT -1.14075 DCLM .15154 DCY .00150 DCYN .00001  
 GRADIENT -.00992 DCLM .00403 DCY .00005 DCYN .00009

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC  
 2.000 DCL -1.10734 DCD -.00374 DCYM .00006 DCBL -.00030  
 4.000 DCLM .12997 DCY -.00075 DCYN .00018  
 GRADIENT -1.12231 DCLM .12083 DCY .00012 DCYN .00018  
 GRADIENT -.01004 DCLM .00355 DCY .00023 DCYN .00005

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC  
 2.000 DCL -0.06579 DCD -.00163 DCYM .00001 DCBL -.00043  
 4.000 DCLM .07421 DCY .00001 DCYN -.00021  
 GRADIENT -0.08112 DCLM .06909 DCY .00035 DCYN -.00031  
 GRADIENT -0.10223 DCLM .00555 DCY -.00004 DCYN -.00006

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 2.000 DCL -0.04234 DCD -.00086 DCYM .00011 DCBL -.00022  
 4.000 DCLM .04897 DCY -.00020 DCYN -.00011  
 GRADIENT -0.05551 DCLM .04544 DCY .00031 DCYN -.00016  
 GRADIENT -0.09934 DCLM .00595 DCY .00004 DCYN -.00003

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 2.000 DCL -0.03966 DCD -.00069 DCYM .00003 DCBL -.00021  
 4.000 DCLM .04817 DCY -.00105 DCYN -.00003  
 GRADIENT -0.06681 DCLM .00654 DCY .00024 DCYN -.00022  
 GRADIENT -.00352 DCLM .00044 DCY .00044 DCYN -.00010

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(PNHX13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 23\*8.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -1.1851 -.00351 .13180 -.00233 .00175  
 4.000 -1.1691 -.00631 .12936 -.00218 .00179  
 GRADIENT -.01176 .00235 .00639 -.00013 .00002 .00001

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -1.1038 -.00243 .11096 -.00361 .00201  
 4.000 -1.2074 -.00455 .10800 -.00292 .00192  
 GRADIENT -.00974 .00269 .00663 .00013 -.00005 .00004

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -0.9571 -.00188 .03986 -.00385 .00197  
 4.000 -1.1139 -.00395 .03679 -.00276 .00183  
 GRADIENT -.01040 .00271 .00658 .00033 -.00008 .00010

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -0.8620 -.00108 .07999 -.00335 .00172  
 4.000 -0.9833 -.00283 .07835 -.00248 .00165  
 GRADIENT -.00862 .00287 .00730 .00022 -.00004 .00009

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -0.5353 -.00012 .04707 -.00145 .00072  
 4.000 -0.7056 -.00120 .04705 -.00305 .00041  
 GRADIENT -.01113 .00321 .00811 .00049 -.00016 .00037

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) (PNHX13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 45.000

ALPHAC  
2.000  
4.000  
GRADIENT

DCL  
-.03409  
-.04918  
-.01010

DCD  
.00020  
-.00040  
.00344

DCLM  
.03266  
.03283  
.00820

DCY  
-.00111  
-.00009  
.00030

DCYN  
.00050  
.00024  
-.00013

DCBL  
-.00064  
-.00024  
.00014

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 50.000

ALPHAC  
2.000  
4.000  
GRADIENT

DCL  
-.03028  
-.04180  
-.00832

DCD  
.00013  
-.00034  
.00351

DCLM  
.02780  
.02850  
.00847

DCY  
-.00133  
.00016  
.00053

DCYN  
.00050  
.00020  
-.00015

DCBL  
-.00004  
-.00005  
-.00001

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = .000  
DY = .000 MACH = .600

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 3.500

ALPHAC  
2.000  
4.000  
GRADIENT

DCL  
-.10849  
-.11652  
-.00657

DCD  
-.00461  
-.00651  
.00280

DCLM  
.13250  
.13015  
.00694

DCY  
-.00409  
-.00326  
.00020

DCYN  
.00295  
.00275  
-.00011

DCBL  
-.00047  
-.00062  
-.00013

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = 10.000  
DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 7.500

ALPHAC  
2.000  
4.000  
GRADIENT

DCL  
-.09683  
-.10206  
-.01018

DCD  
-.00246  
-.00449  
.00273

DCLM  
.10559  
.10729  
.00896

DCY  
-.00379  
-.00328  
.00005

DCYN  
.00384  
.00277  
-.00004

DCBL  
-.00086  
-.00070  
.00008

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC ELEVON = .000 ELEVON = 5.000  
 BREF = 2342.0400 IN. ZMRP = 190.7500 IN. ZC GRADIENT = .0125  
 SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 2.000 -.08231 -.00184 .09492 -.00572 .00310  
 4.000 -.09480 -.00336 .09488 -.00408 .00279  
 GRADIENT -.00931 .00299 .00810 .00061 -.00016 .00004

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 2.000 -.07215 -.00113 .07447 -.00372 .00240  
 4.000 -.07459 -.00219 .07230 -.00250 .00213  
 GRADIENT -.00578 .00322 .00703 .00040 -.00014 .00018

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC DCL DCD DCLM DCY DCYN DCRL  
 2.000 -.05788 .00009 .03742 -.00172 .00088  
 4.000 -.05088 -.00036 .04107 -.00084 .00072  
 GRADIENT -.00903 .00352 .00994 .00023 -.00008 .00001

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 2.000 -.02780 .00025 .02357 -.00253 .00050  
 4.000 -.03216 .00046 .02624 -.00039 .00047  
 GRADIENT -.00474 .00385 .00945 .00056 -.00007 .00028

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 2.000 -.01774 .00064 .02041 -.00128 .00053  
 4.000 -.02300 .00060 .02402 -.00056 .00042  
 GRADIENT -.00809 .00373 .00932 .00015 -.00006 .00011

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 CY = .000 MACH = .600

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 FOR QUALITY

REFERENCE DATA

SPEF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 SPEF = 23.8.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = 10.000  
 D. = .000 MACH = .500

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.13389	-.00730	.20400	-.00545	.00294	-.00036
4.000	-.15157	-.01023	.20794	-.00201	.00215	-.00088
GRADIENT	-.01140	.00229	.01008	.00151	-.00040	-.00032

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.11657	-.00541	.17481	-.00441	.00260	-.00040
4.000	-.13054	-.00789	.17656	-.00244	.00207	-.00075
GRADIENT	-.00954	.00251	.00899	.00077	-.00027	-.00023

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.10480	-.00407	.15664	-.00399	.00243	-.00034
4.000	-.11654	-.00632	.15633	-.00291	.00204	-.00059
GRADIENT	-.00843	.00262	.00796	.00033	-.00020	-.00018

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.08730	-.00266	.12550	-.00280	.00203	-.00103
4.000	-.09666	-.00419	.12307	-.00229	.00185	-.00085
GRADIENT	-.00724	.00298	.00690	.00004	-.00010	.00003

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.05226	-.00073	.07033	-.00187	.00058	.00014
4.000	-.06486	-.00153	.06934	-.00030	.00030	.00009
GRADIENT	-.00886	.00335	.00759	.00057	-.00014	-.00008



ARC 14-120(CA23B) 747/1 ATI 02S1 (CARRIER DATA)

(PNHX15) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.03273	-.00008	.04405	-.00130	.00028	-.00017
4.000	-.04563	-.00045	.04482	.00000	.00011	.00027
GRADIENT	-.00901	.00356	.00850	.00044	-.00009	.00016

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.02978	.00004	.03906	-.00110	.00009	-.00007
4.000	-.03811	-.00007	.03987	.00008	.00001	-.00009
GRADIENT	-.00673	.00369	.00852	.00038	-.00004	-.00007

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.08552	-.00491	.13195	-.00519	.00278	-.00051
4.000	-.09736	-.00602	.13519	-.00351	.00233	-.00053
GRADIENT	-.00848	.00319	.00973	.00063	-.00023	-.00007

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.07171	-.00224	.10653	-.00440	.00243	-.00041
4.000	-.08542	-.00383	.10970	-.00302	.00214	-.00050
GRADIENT	-.00941	.00296	.00970	.00047	-.00015	-.00010

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

PNHX16) 17 OCT 75

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2343.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.07026 -.00143 .09418 -.00512  
 4.000 -.08071 -.00288 .09778 -.00304  
 GRADIENT -.00778 .00302 .00991 .00083

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.05316 -.00075 .07331 -.00438  
 4.000 -.06762 -.00177 .07710 -.00205  
 GRADIENT -.00979 .00324 .01001 .00095

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.03280 -.00058 .03929 -.00228  
 4.000 -.04557 -.00016 .04416 -.00101  
 GRADIENT -.00894 .00338 .01055 .00042

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.01689 -.00100 .02442 -.00177  
 4.000 -.02678 .00074 .02949 .00002  
 GRADIENT -.00750 .00362 .01065 .00069

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.01908 .00067 .02170 -.00211  
 4.000 -.02358 .00098 .02650 .00007  
 GRADIENT -.00486 .00390 .01051 .00088

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

DCYN DCBL  
 .00249 -.00048  
 .00209 -.00059  
 -.00021 -.00011

DCYN DCBL  
 .00202 -.00020  
 .00161 -.00084  
 -.00021 -.00038

DCYN DCBL  
 .00067 -.00015  
 .00040 -.00008  
 -.00014 .00005

DCYN DCBL  
 .00036 -.00005  
 .00011 -.00003  
 -.00013 -.00005

DCYN DCBL  
 .00040 -.00012  
 .00010 -.00018  
 -.00016 -.00003

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC ELEVON = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 8.000 DX = 20.000  
 SCALE = .0125 GRADIENT = .00256 TORB = .000 MACH = .600

PARAMETRIC DATA

BETA =  
 RUDDER =  
 TORB =  
 DY =

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	.12225	.19598	-.00401	.00189	.00189	.00100	-.00100
2.000	-.12333	.21128	-.00100	.00137	.00137	-.00036	-.00036
4.000	-.00310	.01576	.00229	-.00027	-.00027	.00026	.00026
GRADIENT							

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	.10310	.17056	-.00308	.00168	.00168	.00067	-.00067
2.000	-.11183	.18003	-.00020	.00132	.00132	-.00057	-.00057
4.000	-.00692	.01285	.00123	-.00018	-.00018	.00001	-.00001
GRADIENT							

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	-.09972	.15481	-.00254	.00154	.00154	.00034	-.00034
2.000	-.10376	.15900	-.00116	.00129	.00129	-.00079	-.00079
4.000	-.00958	.01021	.00048	-.00013	-.00013	.00028	-.00028
GRADIENT							

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	-.08110	.12518	-.00175	.00121	.00121	.00072	-.00072
2.000	-.09245	.12850	-.00113	.00113	.00113	-.00048	-.00048
4.000	-.00823	.00977	.00004	-.00004	-.00004	.00006	-.00006
GRADIENT							

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	-.05256	.07162	-.00133	.00133	.00133	.00022	-.00022
2.000	-.05960	.07305	-.00143	-.00029	-.00029	-.00010	-.00010
4.000	-.00609	.00683	.00117	-.00022	-.00022	.00022	-.00022
GRADIENT							

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ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA) (PNHX17) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 8.000 DX = 20.000  
 SCALE = .0125 DY = .000 MACH = .600

DZ = 45.000 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC DCL DCO DCLM DCY DCYN DCBL  
 2.000 -.03056 -.00074 .04431 -.00094 .00007  
 4.000 -.03395 -.00099 .04792 .00081 -.00018  
 GRADIENT -.00725 .00363 .00992 .00067 .00013  
 -.00017

DZ = 50.000 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC DCL DCO DCLM DCY DCYN DCBL  
 2.000 -.03315 -.00082 .04049 -.00095 -.00005  
 4.000 -.04031 -.00109 .04331 .00014 -.00005  
 GRADIENT -.00614 .00361 .00352 .00034 .00003  
 -.00011

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA) (PNHX27) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 8.000 DX = .000  
 SCALE = .0125 DY = .000 MACH = .600

DZ = 3.500 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC DCL DCO DCLM DCY DCYN DCBL  
 2.000 -.11637 -.00378 .14249 -.00152 .00183  
 4.000 -.13470 -.00744 .14389 -.00395 .00183  
 GRADIENT -.01173 .00192 .00881 -.00142 .00001  
 .00062

DZ = 7.500 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 ALPHAC DCL DCO DCLM DCY DCYN DCBL  
 2.000 -.110797 -.00311 .12178 -.00282 .00178  
 4.000 -.12585 -.00612 .12162 -.00318 .00173  
 GRADIENT -.01150 .00224 .00804 -.00040 .00003  
 .00023

PARAMETRIC DATA

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA) (PNHX27) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC GRADIENT = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .01162 DCY = .00053 DY = .00008 MACH = .600

PARAMETRIC DATA

PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAAC  
 2.000 DCL .10403 DCD -.00277 DCCLM .10901 DCY -.00411 DCYN -.00188 DCBL .00011  
 4.000 DCL .12214 DCD -.00526 DCCLM .10684 DCY -.00263 DCYN -.00172 DCBL -.00006  
 GRADIENT -.01162 DCY .00250 DCCLM .00703 DCY .00053 DCYN -.00008 DCBL -.00015

PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAAC  
 2.000 DCL -.08562 DCD -.00164 DCCLM .08405 DCY -.00321 DCYN .00130 DCBL -.00042  
 4.000 DCL .10408 DCD -.00371 DCCLM .08253 DCY -.00149 DCYN .00119 DCBL -.00025  
 GRADIENT -.01129 DCY .00271 DCCLM .00735 DCY .00065 DCYN -.00006 DCBL .00003

PN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAAC  
 2.000 DCL -.05995 DCD -.00093 DCCLM .04756 DCY -.00171 DCYN .00081 DCBL .00006  
 4.000 DCL .07088 DCD -.00168 DCCLM .04607 DCY -.00081 DCYN .00087 DCBL -.00016  
 GRADIENT -.00803 DCY .00337 DCCLM .00737 DCY .00024 DCYN .00002 DCBL -.00017

PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAAC  
 2.000 DCL -.03534 DCD -.00057 DCCLM .03007 DCY .00002 DCYN .00004 DCBL .00002  
 4.000 DCL .04553 DCD -.00114 DCCLM .02994 DCY -.00004 DCYN .00024 DCBL .00002  
 GRADIENT -.00786 DCY .00346 DCCLM .00805 DCY .00024 DCYN .00009 DCBL -.00004

PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAAC  
 2.000 DCL -.03770 DCD -.00059 DCCLM .02752 DCY .00023 DCYN .00003 DCBL -.00020  
 4.000 DCL .03993 DCD -.00071 DCCLM .02551 DCY .00014 DCYN .00014 DCBL -.00022  
 GRADIENT -.00368 DCY .00373 DCCLM .00776 DCY .00017 DCYN .00008 DCBL -.00007

ARC 14-120(CA238) 7471 AT1 0351 (CARRIER DATA) (PNHX28) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .5000 IN. YC  
 BRFF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 ICRB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY  
 -.09232 -.00265 .08474 -.00176  
 -.10134 -.00356 .08475 -.00120  
 -.00707 .00329 .00812 .00007

DCYN DCBL  
 .00113  
 .00109  
 -.00002  
 -.00002

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY  
 -.07548 -.00120 .06440 -.00211  
 -.08705 -.00254 .06609 -.00166  
 -.00834 .00308 .00896 .00001

DCYN DCBL  
 .00140  
 .00142  
 .00001  
 .00010

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY  
 -.06667 -.00092 .05486 -.00316  
 -.08259 -.00199 .05810 -.00249  
 -.01052 .00321 .00973 .00012

DCYN DCBL  
 .00171  
 .00168  
 -.00002  
 .00001

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY  
 -.09479 -.00032 .04157 -.00233  
 -.07175 -.00120 .04543 -.00332  
 -.01104 .00331 .01004 -.00071

DCYN DCBL  
 .00184  
 .00197  
 .00006  
 .00006

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY  
 -.03735 -.00029 .02070 -.00147  
 -.04855 -.00006 .02466 -.00058  
 -.00786 .00386 .01009 .00023

DCYN DCBL  
 .00059  
 .00071  
 .00003  
 .00023

ARC 14-120(CA23B) 747/1 ATI 03S1 (CARRIER DATA) (PNHX28) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 6.000 DX = 10.000  
 SCALE = .0125 GRADIENT = -.00758 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 45.000 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 ALPHAC 2.000 -.02651 -.00018 .01267 -.00065 .00021  
 4.000 -.03655 .00030 .01720 .00038 .00015  
 GRADIENT -.00758 .00399 .01038 .00030 -.00004  
 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 ALPHAC 2.000 -.01987 .00001 .00995 -.00007 .00013  
 4.000 -.02635 .00033 .01569 .00018 .00026  
 GRADIENT -.00580 .00391 .01098 .00009 .00006  
 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

ARC 14-120(CA23B) 747/1 ATI 03S1 (CARRIER DATA) (PNHX29) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = .000  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN ZC TORB = 8.000 DX = 10.000  
 SCALE = .0125 GRADIENT = -.00698 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 3.500 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 ALPHAC 2.000 -.12118 -.00609 .14709 -.00268 .00130  
 4.000 -.13002 -.00738 .15187 .00057 .00086  
 GRADIENT -.00698 .00310 .01050 .00142 -.00023  
 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500 ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 ALPHAC 2.000 -.10442 -.00430 .12381 -.00271 .00141  
 4.000 -.11547 -.00589 .12797 -.00093 .00124  
 GRADIENT -.00698 .00295 .01019 .00068 -.00009  
 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

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ARC 14-120(CA23B) 747/1 AT1 03SI (CARRIER DATA)

(PNHX29) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN. ZC

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LCRB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.00311  
 -.00485  
 .00288

DCLM  
 .10927  
 .11230  
 .00963

DCY  
 -.00262  
 -.00194  
 .00013

DCYN  
 .00144  
 .00147  
 .00001

DCBL  
 -.00009  
 -.00012  
 -.00007

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.00194  
 -.00368  
 .00288

DCLM  
 .08576  
 .08790  
 .00918

DCY  
 -.00353  
 -.00307  
 .00001

DCYN  
 .00190  
 .00187  
 -.00002

DCBL  
 -.00058  
 -.00038  
 .00004

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.00098  
 -.00140  
 .00354

DCLM  
 .04496  
 .04815  
 .00971

DCY  
 -.00165  
 -.00107  
 .00008

DCYN  
 .00109  
 .00101  
 -.00004

DCBL  
 -.00051  
 -.00036  
 .00002

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.00039  
 -.00064  
 .00362

DCLM  
 .02770  
 .03137  
 .00995

DCY  
 -.00048  
 .00078  
 .00042

DCYN  
 .00223  
 .00012  
 -.00006

DCBL  
 -.00019  
 -.00022  
 -.00007

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.00060  
 -.00064  
 .00373

DCLM  
 .02531  
 .02875  
 .00984

DCY  
 -.00061  
 -.00021  
 -.00001

DCYN  
 .00017  
 .00030  
 .00006

DCBL  
 .00020  
 .00040  
 .00004



(PNHX30) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = 20.000  
 DY = .000 MACH = 1.600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC = 3.500  
 2.000  
 4.000  
 GRADIENT = .00277

DCL = .11010  
 -.11851  
 -.00676

DCD = -.00600  
 -.00796  
 .00277

DCLM = .14571  
 .15667  
 .01359

DCY = -.00179  
 -.00023  
 .00057

DCYN = .00097  
 .00080  
 -.00009

DCBL = .00052  
 .00055  
 -.00004

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC = 7.500  
 2.000  
 4.000  
 GRADIENT = .00280

DCL = -.09327  
 -.10597  
 -.00891

DCD = -.00445  
 -.00635  
 .00280

DCLM = .12174  
 .13103  
 .01276

DCY = -.00210  
 -.00097  
 .00036

DCYN = .00120  
 .00109  
 -.00006

DCBL = .00018  
 .00020  
 -.00005

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC = 10.000  
 2.000  
 4.000  
 GRADIENT = .00276

DCL = -.07984  
 -.09707  
 -.01115

DCD = -.00322  
 -.00520  
 .00276

DCLM = .10723  
 .11410  
 .01154

DCY = -.00225  
 -.00145  
 .00019

DCYN = .00136  
 .00128  
 -.00004

DCBL = .00003  
 -.00009  
 -.00009

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC = 15.000  
 2.000  
 4.000  
 GRADIENT = .00987

DCL = -.07221  
 -.08684  
 -.00987

DCD = -.00275  
 -.00402  
 .00311

DCLM = .08365  
 .08925  
 .01091

DCY = -.00282  
 -.00206  
 .00017

DCYN = .00159  
 .00156  
 -.00002

DCBL = .00024  
 -.00003  
 .00005

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC = 30.000  
 2.000  
 4.000  
 GRADIENT = .00701

DCL = -.04798  
 -.05688  
 -.00701

DCD = -.00160  
 -.00186  
 .00362

DCLM = .04533  
 .04954  
 .01022

DCY = -.00252  
 -.00111  
 .00050

DCYN = .00100  
 .00091  
 -.00005

DCBL = .00008  
 .00038  
 .00017

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(PNHX30) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SO.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN. ZC

DZ = 45.000  
 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.02950	-.00042	.02669	-.00099	.00026	-.00022
4.000	-.04712	-.00119	.03249	-.00038	.00026	.00009
GRADIENT	-.01337	.00336	.01101	.00005	-.00001	.00010

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.02906	-.00071	.02318	-.00101	.00015	.00036
4.000	-.03650	-.00077	.02885	.00056	.00007	.00003
GRADIENT	-.00628	.00372	.01095	.00057	-.00004	-.00022

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(PNHX31) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SO.FT.  
 LREF = 327.7800 IN.  
 BREF = 2348.0400 IN.  
 SCALE = .0125

XMRP = 1339.9000 IN. XC  
 YMRP = .0000 IN. YC  
 ZMRP = 190.7500 IN. ZC

DZ = 3.500  
 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.09896	-.00410	.08139	-.00226	.00097	.00028
4.000	-.09629	-.00448	.08161	-.00222	.00115	-.00044
GRADIENT	-.00122	.00356	.00822	-.00019	.00009	-.00042

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.07260	-.00262	.06470	-.00255	.00125	.00009
4.000	-.08345	-.00315	.06804	-.00220	.00138	-.00028
GRADIENT	-.00433	.00349	.00979	-.00003	.00006	-.00025

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(PNHX31) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XHRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YHRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZHRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAAC  
 2.000 DCL -.06421 DCD -.00146 DCLM .05440 DCY -.00269 DCBL -.00021  
 4.000 DCL -.07412 DCD -.00220 DCLM .05949 DCY -.00213 DCBL -.00009  
 GRADIENT -.00752 DCD .00338 DCLM .01066 DCY .00007 DCBL .00006

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAAC  
 2.000 DCL -.05793 DCD -.00088 DCLM .04045 DCY -.00298 DCBL .00053  
 4.000 DCL -.06497 DCD -.00128 DCLM .04546 DCY -.00222 DCBL -.00031  
 GRADIENT -.00608 DCD .00355 DCLM .01062 DCY .00017 DCBL -.00048

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAAC  
 2.000 DCL -.03574 DCD .00011 DCLM .01802 DCY -.00060 DCBL -.00014  
 4.000 DCL -.04542 DCD -.00031 DCLM .02292 DCY -.00155 DCBL .00003  
 GRADIENT -.00740 DCD .00353 DCLM .01056 DCY -.00074 DCBL .00003

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAAC  
 2.000 DCL -.02061 DCD .00040 DCLM .01035 DCY -.00101 DCBL -.00033  
 4.000 DCL -.03124 DCD .00019 DCLM .01507 DCY .00129 DCBL .00002  
 GRADIENT -.00787 DCD .00364 DCLM .01047 DCY .00094 DCBL .00011

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAAC  
 2.000 DCL -.02130 DCD .00025 DCLM .00871 DCY -.00025 DCBL .00003  
 4.000 DCL -.02826 DCD .00019 DCLM .01358 DCY .00043 DCBL .00017  
 GRADIENT -.00594 DCD .00372 DCLM .01055 DCY .00013 DCBL .00001

ARC 14-120(CA238) 747/1 AT1 0351 (CARRIER DATA)

(PNHX34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 387.7800 IN. YMRP = 6000 IN. YC  
 RREF = 2548.0000 IN. ZMRP = 100.0000 IN. ZC  
 SCALE = 10168

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 5.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000 .10352 DCL .08231 DCY  
 4.000 .11998 .07896 .00145  
 GRADIENT -.01129 .00644 -.00006

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 2.000 .08927 DCL .06569 DCY  
 4.000 .10523 .06340 .00027  
 GRADIENT -.01054 .00696 -.00038

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000 .08506 DCL .05821 DCY  
 4.000 .09940 .05592 .00040  
 GRADIENT -.00973 .00697 -.00022

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000 .06957 DCL .04592 DCY  
 4.000 .08346 .04109 .00048  
 GRADIENT -.00950 .00321 -.00031

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000 .04633 DCL .02593 DCY  
 4.000 .05556 .02534 .00069  
 GRADIENT -.00717 .00349 .00054

DCBL  
 -.00025  
 -.00042  
 -.00014

DCYN  
 .00013  
 -.00011  
 .00001

DCBL  
 -.00023  
 -.00019  
 -.00004

DCYN  
 .00023  
 .00044  
 .00010

DCBL  
 -.00027  
 -.00025  
 -.00005

DCYN  
 .00038  
 .00064  
 .00013

DCBL  
 -.00067  
 -.00028  
 .00014

DCYN  
 .00086  
 .00108  
 .00011

DCBL  
 -.00026  
 -.00055  
 -.00021

DCYN  
 .00013  
 .00056  
 .00021

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(PNHX34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000 .02309 DCL DCD DCLM DCY DCYN DCBL  
 4.000 -.03829 -.00017 .01698 .00021 -.00014 .00003  
 GRADIENT -.00716 -.00012 .01740 .00060 -.00003 -.00002  
 .00360 .00832 -.00001 .00005 -.00008

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 2.000 -.02862 DCL DCD DCLM DCY DCYN DCBL  
 4.000 -.03373 -.00007 .01522 .00023 -.00003 .00008  
 GRADIENT -.00512 .00363 .00813 .0007 .00003 .00003 .00010

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

ORIGINAL PAGE IS OF POOR QUALITY

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000 -.15732 DCL DCD DCLM DCY DCYN DCBL  
 4.000 -.17423 -.00732 .20664 .00083 -.00021 .00134  
 GRADIENT -.01101 .00149 .00573 -.00004 -.00022 -.00065  
 .00004 .00004 .00004 .00004 .00004 .00004 .00004

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 2.000 -.13937 DCL DCD DCLM DCY DCYN DCBL  
 4.000 -.15415 -.00597 .17710 .00056 -.00030 .00054  
 GRADIENT -.01045 .00200 .00480 .00101 -.00016 -.00016 .00013

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(PNHY10) ( 17 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

DATE 23 MAR 75

TABULATED SOURCE DATA - CA23B

ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

(PNHY10) 1 1 OCT 75

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

BETA = .000 STAE = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 10.000  
 ALPHAC  
 2.000 DCL .12528 DCD -.00505 DCYM .00061 DCBL .00008  
 4.000 DCLM .15870 DCLM .12941 DCY -.00108  
 GRADIENT -.14045 DCL -.00788 DCLM .12038 DCY -.00044 DCY .00024  
 .01014 DCLM .00234 DCLM .00360 DCY .00011 DCY .00010  
 GRADIENT -.01014 DCLM .00261 DCY .00014 DCY .00014

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 15.000  
 ALPHAC  
 2.000 DCL -.10709 DCD -.00376 DCYM .00004 DCBL -.00011  
 4.000 DCLM -.12226 DCLM .12941 DCY -.00108  
 GRADIENT -.01014 DCL -.00503 DCLM .12038 DCY -.00044 DCY .00024  
 .01014 DCLM .00261 DCY .00011 DCY .00010

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 30.000  
 ALPHAC  
 2.000 DCL -.06579 DCD -.00165 DCYM .00000 DCBL -.00034  
 4.000 DCLM -.08101 DCLM .06893 DCY -.00047 DCY .00001  
 GRADIENT -.01017 DCLM .00306 DCLM .00556 DCY -.00014 DCY .00001

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 45.000  
 ALPHAC  
 2.000 DCL -.04281 DCD -.00085 DCYM .00007 DCBL -.00022  
 4.000 DCLM -.05654 DCLM .04885 DCY -.00061 DCY .00005  
 GRADIENT -.00943 DCLM .00133 DCLM .04636 DCY -.00019 DCY .00001  
 .01014 DCLM .00351 DCLM .00687 DCY -.00000 DCY .00001

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 50.000  
 ALPHAC  
 2.000 DCL -.03972 DCD -.00067 DCYM .00014 DCBL -.00018  
 4.000 DCLM -.04827 DCLM .04356 DCY -.00145 DCY .00001  
 GRADIENT -.00704 DCLM .00113 DCLM .04072 DCY -.00025 DCY .00001  
 .01014 DCLM .00352 DCLM .00669 DCY -.00039 DCY .00008

(PNHY13) ( 17 OCT 75 )

TABULATED SOURCE DATA - CA23B  
ARC 14-120(CA23B) 747/1 AT1 02S1 (CARRIER DATA)

DATE 23 MAR 76

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .500

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC DCL DCD DCY DCYD DCBL  
 2.000 -1.1806 -0.00355 .13101 -0.0246 .00149  
 4.000 -1.13645 -0.00632 .12848 -0.0250 .00148  
 GRADIENT -0.11176 .00237 .00685 -0.00023 -0.00001

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC DCL DCD DCY DCYD DCBL  
 2.000 -1.10549 -0.00248 .11028 -0.0367 .00174  
 4.000 -1.12003 -0.00457 .10737 -0.0319 .00170  
 GRADIENT -0.09983 .00270 .00666 .00003 -0.00002

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC DCL DCD DCY DCYD DCBL  
 2.000 -0.9490 -0.00192 .09916 -0.0389 .00169  
 4.000 -1.11068 -0.00396 .09616 -0.0310 .00163  
 GRADIENT -0.11045 .00273 .00661 .00018 -0.00003

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC DCL DCD DCY DCYD DCBL  
 2.000 -0.8521 -0.00111 .07955 -0.0351 .00158  
 4.000 -0.9753 -0.00284 .07794 -0.0289 .00159  
 GRADIENT -0.0872 .00289 .00731 .00010 -0.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC DCL DCD DCY DCYD DCBL  
 2.000 -0.5318 -0.00015 .04676 -0.0189 .00085  
 4.000 -0.7021 -0.00119 .04687 -0.0069 .00061  
 GRADIENT -0.11107 .00323 .00817 .00039 -0.00013

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DATE 23 MAR 76

TABULATED SOURCE DATA - CA238

832

ARC 14-120(CA238) 747/1 ATI 0251 (CARRIER DATA)

(PNHY13) (17 OCT 75)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC DCL DCO DCM DCY DCBL  
2.000 -.03387 .00019 .03240 .00063  
4.000 -.04876 -.00040 .03274 -.00042  
GRADIENT -.01000 .00345 .00828 .00024 -.00011

DCYN DCBL  
.00061  
-.00021  
.00014

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC DCL DCO DCM DCY DCBL  
2.000 -.03038 .00010 .02793 -.00161  
4.000 -.04162 -.00033 .02863 -.00025  
GRADIENT -.00818 .00354 .00846 .00047 -.00013

DCYN DCBL  
.00061  
-.00001  
.00005  
-.00003

ARC 14-120(CA238) 747/1 ATI 0251 (CARRIER DATA)

(PNHY18) (17 OCT 75)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
LREF = 327.7800 IN. YMRP = .0000 IN. YC  
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC DCL DCO DCM DCY DCBL  
2.000 -.10637 -.00497 .11175 -.00582  
4.000 -.12478 -.00657 .11123 -.00907  
GRADIENT -.01176 .00295 .00785 -.00184 .00016

DCYN DCBL  
-.00491  
-.00457  
.00016

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = .000  
DY = 10.000 MACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC DCL DCO DCM DCY DCBL  
2.000 -.08798 -.00340 .09659 -.00504  
4.000 -.10392 -.00509 .09437 -.00863  
GRADIENT -.01053 .00290 .00701 -.00201 .00069

DCYN DCBL  
-.00409  
-.00271  
.00069

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
TORB = 6.000 DX = .000  
DY = 10.000 MACH = .600

PARAMETRIC DATA



REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LPEF = 327.7800 IN. YMRP = .0000 IN. YC  
 BPEF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCO	DCLM	DCY	DCYN	DCBL
2.000	-.08047	-.00276	.08681	-.00465	-.00333	.00435
4.000	-.09664	-.00401	.08506	-.00916	-.00169	.00436
GRADIENT	-.01064	.00313	.00724	-.00246	.00081	-.00005

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCO	DCLM	DCY	DCYN	DCBL
2.000	-.06738	-.00179	.07188	-.00680	-.00162	.00318
4.000	-.08158	-.00298	.06979	-.01077	.00040	.00365
GRADIENT	-.00965	.00315	.00707	-.00219	.00100	.00018

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCO	DCLM	DCY	DCYN	DCBL
2.000	-.04714	-.00069	.04147	-.01014	.00321	.00103
4.000	-.05723	-.00081	.04189	-.01370	.00469	.00095
GRADIENT	-.00761	.00369	.00833	-.00199	.00073	-.00010

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	DCL	DCO	DCLM	DCY	DCYN	DCBL
2.000	-.03009	-.00006	.02860	-.00856	.00321	.00002
4.000	-.03782	-.00021	.02971	-.00981	.00383	.00026
GRADIENT	-.00642	.00367	.00867	-.00083	.00030	.00006

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	DCL	DCO	DCLM	DCY	DCYN	DCBL
2.000	-.02666	-.00034	.02717	-.00695	.00263	.00055
4.000	-.03355	.00017	.02885	-.00794	.00314	.00014
GRADIENT	-.00600	.00400	.00896	-.00071	.00025	-.00026

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ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

(PNHY19)

( 5 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000 DCL .14691 DCLM .15791 DCY .00763 DCYN .00504 DCBL .00575  
 4.000 DCL .16013 DCLM .15676 DCY .01200 DCYN .00289 DCBL .00728  
 GRADIENT .009917 GRADIENT .00754 GRADIENT .00240 GRADIENT .00107 GRADIENT .00070

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 2.000 DCL .12342 DCLM .14283 DCY .00852 DCYN .00328 DCBL .00541  
 4.000 DCL .13993 DCLM .13935 DCY .01305 DCYN .00097 DCBL .00637  
 GRADIENT .01082 GRADIENT .00668 GRADIENT .00248 GRADIENT .00115 GRADIENT .00042

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000 DCL .10544 DCLM .13367 DCY .00887 DCYN .00222 DCBL .00509  
 4.000 DCL .12361 DCLM .12928 DCY .01393 DCYN .00040 DCBL .00576  
 GRADIENT .01164 GRADIENT .00592 GRADIENT .00274 GRADIENT .00131 GRADIENT .00027

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000 DCL .09888 DCLM .11427 DCY .00986 DCYN .00045 DCBL .00487  
 4.000 DCL .11583 DCLM .10955 DCY .01453 DCYN .00205 DCBL .00484  
 GRADIENT .01104 GRADIENT .00290 GRADIENT .00254 GRADIENT .00125 GRADIENT .00007

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000 DCL .06277 DCLM .06944 DCY .01435 DCYN .00452 DCBL .00159  
 4.000 DCL .07369 DCLM .06545 DCY .01832 DCYN .00648 DCBL .00132  
 GRADIENT .00802 GRADIENT .00361 GRADIENT .00219 GRADIENT .00097 GRADIENT .00019

DATE 23 MAR 76 TABULATED SOURCE DATA - CA23B (PNHY19) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0251 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000
LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000
BREF = 2342.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 8.000 DX = .000
SCALE = .0125 GRADIENT = -.01037 GRADIENT INTERVAL = -5.00/ 5.00 DY = 10.000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000 DCBL = .000006
ALPHAC = .04457 DCYN = .00433
2.000 DCLM = .04337 DCY = -.01038
4.000 DCD = -.00035 DCY = -.01092
GRADIENT = -.01037 GRADIENT INTERVAL = -5.00/ 5.00 DCY = .00474
GRADIENT = .00339 GRADIENT INTERVAL = -5.00/ 5.00 DCY = .00020

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000 DCBL = .000045
ALPHAC = .04100 DCYN = .00365
2.000 DCLM = .03984 DCY = -.00955
4.000 DCD = -.00029 DCY = -.00949
GRADIENT = -.01016 GRADIENT INTERVAL = -5.00/ 5.00 DCY = .00401
GRADIENT = .00359 GRADIENT INTERVAL = -5.00/ 5.00 DCY = .00017

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC BETA = .000 STAB = 5.000
LREF = 327.7800 IN. YMRP = .0000 IN. YC RUDDER = .000 ELEVON = 5.000
BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC TORB = 8.000 DX = .000
SCALE = .0125 GRADIENT = -.01183 GRADIENT INTERVAL = -5.00/ 5.00 DY = 10.000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500 DCBL = .000167
ALPHAC = .14286 DCYN = .00191
2.000 DCLM = .14286 DCY = -.00137
4.000 DCD = -.00370 DCY = -.00402
GRADIENT = -.01183 GRADIENT INTERVAL = -5.00/ 5.00 DCY = .00186
GRADIENT = .00862 GRADIENT INTERVAL = -5.00/ 5.00 DCY = -.00003

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500 DCBL = .000076
ALPHAC = .12195 DCYN = .00181
2.000 DCLM = .12164 DCY = -.00275
4.000 DCD = -.00612 DCY = -.00316
GRADIENT = -.01156 GRADIENT INTERVAL = -5.00/ 5.00 DCY = .00174
GRADIENT = .00223 GRADIENT INTERVAL = -5.00/ 5.00 DCY = -.00004

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(PNHY27) ( 17 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LPEF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2349.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 3.000  
 RUDDER = .000 ELE. ON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = 1.600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.10499  
 -.12227  
 -.01165

DCD  
 -.00278  
 -.00526  
 .00250

DCLM  
 .10908  
 .10689  
 .00702

DCY  
 -.00409  
 -.0256  
 .00056

DCYN  
 .00189  
 .00172  
 -.00009

DCBL  
 .00009  
 -.00009  
 -.00015

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.08560  
 -.10423  
 -.01133

DCD  
 -.00163  
 -.00371  
 .00271

DCLM  
 .08407  
 .08248  
 .00732

DCY  
 -.00318  
 -.00139  
 .00068

DCYN  
 .00129  
 .00117  
 -.00007

DCBL  
 -.00043  
 -.00026  
 .00003

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.06013  
 -.07099  
 -.00799

DCD  
 -.00093  
 -.00169  
 .00337

DCLM  
 .04763  
 .04605  
 .00732

DCY  
 -.00165  
 -.00077  
 .00023

DCYN  
 .00078  
 .00085  
 .00003

DCBL  
 .00006  
 -.00015  
 -.00017

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 .03034  
 -.04602  
 -.00790

DCD  
 -.00058  
 -.00116  
 .00346

DCLM  
 .03011  
 .02991  
 .00801

DCY  
 .00008  
 -.00007  
 -.00028

DCYN  
 .00002  
 .00024  
 .00011

DCBL  
 -.00002  
 .00003  
 -.00004

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.03700  
 -.03385  
 -.00358

DCD  
 -.00069  
 -.00072  
 .00373

DCLM  
 .02726  
 .02646  
 .00772

DCY  
 .00027  
 .00038  
 -.00016

DCYN  
 -.00005  
 .00011  
 .00007

DCBL  
 -.00020  
 -.00024  
 -.00008

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(PNHY32) ( 17 OCT 75 )

REFERENCE DATA

SPEF \* 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF \* 327.7800 IN. YMRP = .0000 IN. YC  
 BREF \* 2348.0400 IN. ZMRP = 190.7500 IN ZC  
 SCALE \* .0125

BETA \* .000 STAB \* 5.000  
 RUDDER \* .000 ELEVON \* .000  
 TORB \* 6.000 DX \* .000  
 DY \* 10.000 MACH \* .600

PARAMETRIC DATA

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ \* 3.500  
 ALPHAC  
 2.000 DCL -.09755 DCD -.00255 DCLM .06986 DCY -.00825 DCYN .00407 DCBL .00407  
 4.000 DCL -.11172 DCD -.00330 DCLM .06875 DCY -.01105 DCYN -.00211 DCBL .00529  
 GRADIENT -.00965 DCL -.00312 DCD .00307 DCLM .00756 DCY -.00161 DCYN .00013 DCBL .00055

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ \* 7.500  
 ALPHAC  
 2.000 DCL -.07862 DCD -.00139 DCLM .05745 DCY -.00767 DCYN .00126 DCBL .00329  
 4.000 DCL -.09607 DCD -.00274 DCLM .05597 DCY -.01127 DCYN -.00004 DCBL .00438  
 GRADIENT -.01128 DCL -.00307 DCLM .00737 DCY -.00201 DCYN .00061 DCBL .00049

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ \* 10.000  
 ALPHAC  
 2.000 DCL -.07525 DCD -.00121 DCLM .04984 DCY -.00775 DCYN -.00047 DCBL .00325  
 4.000 DCL -.09259 DCD -.00221 DCLM .05038 DCY -.01176 DCYN .00090 DCBL .00382  
 GRADIENT -.01123 DCL -.00325 DCLM .00838 DCY -.00222 DCYN .00068 DCBL .00023

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ \* 15.000  
 ALPHAC  
 2.000 DCL -.06232 DCD -.00070 DCLM .03773 DCY -.00866 DCYN .00100 DCBL .00231  
 4.000 DCL -.07762 DCD -.00139 DCLM .03884 DCY -.01236 DCYN .00246 DCBL .00227  
 GRADIENT -.01020 DCL -.00340 DCLM .00867 DCY -.00206 DCYN .00072 DCBL .00008

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ \* 30.000  
 ALPHAC  
 2.000 DCL -.03850 DCD -.00001 DCLM .02659 DCY -.00748 DCYN .00274 DCBL .00082  
 4.000 DCL -.05144 DCD -.00032 DCLM .02284 DCY -.01080 DCYN .00404 DCBL .00085  
 GRADIENT -.00903 DCL .00359 DCLM .00819 DCY -.00187 DCYN .00064 DCBL .00005

DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B

SE

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

( 17 OCT 75 )

(PNHY32)

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BRREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.02575  
 -.03741  
 -.00838

DCD  
 -.00011  
 .00012  
 .00386

DCLM  
 .01499  
 .01714  
 .00919

DCY  
 -.00569  
 -.00577  
 -.00076

DCBL  
 .00057  
 .00064  
 -.00003

DCYN  
 .00226  
 .00282  
 .00028

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01987  
 -.03513  
 -.01019

DCD  
 .00027  
 .00006  
 .00364

DCLM  
 .01269  
 .01498  
 .00926

DCY  
 -.00419  
 -.00554  
 -.00089

DCBL  
 .00008  
 .00058  
 .00019

DCYN  
 .00194  
 .00243  
 .00024

ARC 14-120(CA23B) 747/1 ATI 0351 (CARRIER DATA)

(PNHY33) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BRREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.11906  
 -.14318  
 -.01462

DCD  
 -.00602  
 -.00780  
 .00286

DCLM  
 .11367  
 .11058  
 .00657

DCY  
 -.00891  
 -.01406  
 -.00279

DCBL  
 .00458  
 .00600  
 .00065

DCYN  
 -.00296  
 -.00086  
 .00099

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.11096  
 -.12932  
 -.01174

DCD  
 -.00465  
 -.00649  
 .00283

DCLM  
 .10029  
 .09819  
 .00706

DCY  
 -.01013  
 -.01509  
 -.00259

DCBL  
 .00450  
 .00515  
 .00027

DCYN  
 -.00104  
 .00102  
 .00102

ARC 14-120(CA23B) 747/1 AT1 03S1 (CARRIER DATA)

(PNHY33) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7803 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.10584	-.00374	.09258	-.01072	.00005	.00466
4.000	-.12067	-.00566	.09093	-.01572	.00227	.00478
GRADIENT	-.00998	.00279	.00729	-.00271	.00111	-.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.08826	-.00276	.07421	-.01141	.00171	.00301
4.000	-.10317	-.00415	.07335	-.01692	.00410	.00303
GRADIENT	-.01001	.00306	.00768	-.00296	.00119	-.00005

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.05706	-.00128	.04279	-.01176	.00434	.00108
4.000	-.06740	-.00159	.04261	-.01511	.00603	.00083
GRADIENT	-.00773	.00359	.00802	-.00188	.00084	-.00019

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.03455	-.00011	.02760	-.00756	.00327	.00030
4.000	-.04846	-.00040	.02811	-.00858	.00380	.00069
GRADIENT	-.00952	.00360	.00837	-.00072	.00026	.00014

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL
2.000	-.03414	-.00044	.02520	-.00506	.00248	.00041
4.000	-.04496	-.00066	.02603	-.00677	.00310	.00089
GRADIENT	-.00797	.00364	.00853	-.00107	.00030	.00018

ARC 14-120(CA23B) 747/1 AT1 0351 (CARRIER DATA)

(PNHY34) ( 17 3 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.10225 -.00128 -.08229 .00102 -.00012  
 4.000 -.11996 -.00325 -.07895 .00143 -.00012  
 GRADIENT -.01142 .00276 .00644 -.00001 -.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.08913 -.00061 -.06565 .00022 -.00022  
 4.000 -.10520 -.00240 .06336 -.00011 -.00018  
 GRADIENT -.01060 .00286 .00697 -.00038 .00010

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.08490 -.00053 -.05816 -.00044 -.00026  
 4.000 -.09943 -.00187 .05588 -.00048 -.00022  
 GRADIENT -.00982 .00308 .00697 -.00023 .00012

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.06944 -.00001 .04585 .00054 -.00055  
 4.000 -.08349 -.00109 .04497 -.00037 -.00026  
 GRADIENT -.00959 .00321 .00767 -.00013 .00010

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC DCL DCD DCLM DCY DCBL  
 2.000 -.04628 .00033 .02591 .00065 -.00025  
 4.000 -.05559 -.00019 .02532 -.00007 -.00054  
 GRADIENT -.00721 .00349 .00782 -.00057 .00022



DATE 23 MAR 76

TABULATED SOURCE DATA - CA238

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ARC 14-120(CA238) 747/1 ATI 0351 (CARRIER DATA)

(PNHY34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 5500.0000 SC.FT. XMRP = 1339.9000 IN. XC  
 LREF = 327.7800 IN. YMRP = .0000 IN. YC  
 BREF = 2348.0400 IN. ZMRP = 190.7500 IN. ZC  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 ICRB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 2.000 -.02910 .00018 .01703 .00019 -.00013  
 4.000 -.03831 -.00013 .01740 .00061 -.00003  
 GRADIENT -.00716 .00359 -.00830 -.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC DCL DCD DCLM DCY DCYN DCBL  
 2.000 -.02876 -.00007 .01531 .00022 -.00003  
 4.000 -.03390 -.00032 .01524 .00078 .00040  
 GRADIENT -.00513 .00362 .00808 .00007

ARC 14-120(CA238) 747/1 ATI 0351 (ORBITER DATA)

(TNH008) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SC.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 ICRB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAO DCL DCD DCLM DCY DCYN DCBL  
 3.500 6.000 -.02984 -.00705 .01187 .00186 .00033  
 3.500 8.000 -.06931 -.01039 .01158 .00217 .00086  
 3.500 10.000 -.11750 -.01813 .01522 .00134 .00111  
 GRADIENT -.04451 -.00679 -.00468 .00014 .00009

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAO DCL DCD DCLM DCY DCYN DCBL  
 7.500 6.000 -.02505 -.00582 .00111 .00111 .00019  
 7.500 8.000 -.05552 -.00930 .00911 .00123 .00077  
 7.500 10.000 -.12545 -.01636 .01235 .00098 .00112  
 GRADIENT -.04552 -.00507 -.00425 .00012 .00006

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITEF DATA)

(TNH008) ( - - )

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	6.000	-.02369	-.00527	.00726	.00035	.00001	.00069
10.000	8.000	-.06125	-.00880	.00867	-.00087	-.00018	.00041
10.000	10.000	-.10749	-.01557	.01126	.00043	-.00004	.00090
	GRADIENT	-.04611	-.00407	-.00400	.00011	.00004	-.00009

RUN NO. 0/0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	6.000	-.02494	-.00437	.00582	.00045	-.00003	.00057
15.000	8.000	-.06138	-.00776	.00704	.00022	.00000	.00042
15.000	10.000	-.10059	-.01381	.00994	.00083	-.00003	.00091
	GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

RUN NO. 0/0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	6.000	-.02255	-.00268	.00391	-.00006	.00010	.00034
30.000	8.000	-.04687	-.00511	.00544	-.00012	-.00008	.00023
30.000	10.000	-.08042	-.00954	.00740	.00086	-.00018	.00055
	GRADIENT	-.04785	-.00066	-.00317	.00006	-.00002	-.00002

RUN NO. 0/0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	6.000	-.02209	-.00154	.00277	-.00014	.00014	.00033
45.000	8.000	-.03717	-.00349	.00418	.00016	-.00012	.00022
45.000	10.000	-.06073	-.00583	.00573	.00091	-.00024	.00029
	GRADIENT	-.04649	-.00225	-.00359	.00004	.00001	-.00004

RUN NO. 0/0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	6.000	-.01841	-.00133	.00271	-.00025	.00019	.00024
50.000	8.000	-.03302	-.00292	.00398	.00048	-.00003	.00036
50.000	10.000	-.05322	-.00422	.00519	.00096	-.00024	.00041
	GRADIENT	-.04612	-.00265	-.00370	.00004	.00001	-.00005

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(TNH009) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 PIVL = 3.34 GRADIENT INTERVAL = -5.00 / 5.00  
 DZ ALPHA0 0 / 0  
 3.500 8.000 DCL -.01518 DCD -.00528 DCLM .00900 DCY .00291 DCYN .00025 DCBL .00104  
 3.500 10.000 DCL -.05613 DCD -.01136 DCLM .01174 DCY .00207 DCYN -.00006 DCBL .00173  
 3.500 12.000 DCL -.10957 DCD -.02560 DCLM .01638 DCY .00220 DCYN -.00033 DCBL .00061  
 GRADIENT -.04451 DCD -.00679 DCLM -.00468 DCY .00014 DCYN .00009 DCBL -.00014

RUN NO. 0 / 0 PIVL = 3.35 GRADIENT INTERVAL = -5.00 / 5.00  
 DZ ALPHA0 0 / 0  
 7.500 8.000 DCL -.01496 DCD -.00366 DCLM .00636 DCY .00190 DCYN .00003 DCBL .00086  
 7.500 10.000 DCL -.06133 DCD -.01113 DCLM .01011 DCY .00205 DCYN -.00003 DCBL .00141  
 7.500 12.000 DCL -.10467 DCD -.02390 DCLM .01445 DCY .00226 DCYN -.00043 DCBL .00057  
 GRADIENT -.04552 DCD -.00507 DCLM -.00425 DCY .00012 DCYN .00006 DCBL -.00011

RUN NO. 0 / 0 PIVL = 3.35 GRADIENT INTERVAL = -5.00 / 5.00  
 DZ ALPHA0 0 / 0  
 10.000 8.000 DCL -.02358 DCD -.00520 DCLM .00685 DCY .00123 DCYN .00003 DCBL .00056  
 10.000 10.000 DCL -.06623 DCD -.01105 DCLM .00894 DCY .00243 DCYN .00008 DCBL .00119  
 10.000 12.000 DCL -.10063 DCD -.02268 DCLM .01313 DCY .00245 DCYN -.00048 DCBL .00056  
 GRADIENT -.04611 DCD -.00407 DCLM -.00400 DCY .00011 DCYN .00004 DCBL -.00009

RUN NO. 0 / 0 PIVL = 3.35 GRADIENT INTERVAL = -5.00 / 5.00  
 DZ ALPHA0 0 / 0  
 15.000 8.000 DCL -.02637 DCD -.00453 DCLM .00542 DCY .00003 DCYN .00023 DCBL .00051  
 15.000 10.000 DCL -.06382 DCD -.01038 DCLM .00764 DCY .00072 DCYN -.00029 DCBL .00091  
 15.000 12.000 DCL -.09871 DCD -.02099 DCLM .01122 DCY .00194 DCYN -.00067 DCBL .00045  
 GRADIENT -.04711 DCD -.00234 DCLM -.00357 DCY .00009 DCYN .00001 DCBL -.00006

RUN NO. 0 / 0 PIVL = 3.35 GRADIENT INTERVAL = -5.00 / 5.00  
 DZ ALPHA0 0 / 0  
 30.000 8.000 DCL -.01968 DCD -.00363 DCLM .00392 DCY .00009 DCYN -.00025 DCBL .00017  
 30.000 10.000 DCL -.05025 DCD -.00658 DCLM .00551 DCY .00160 DCYN -.00035 DCBL .00062  
 30.000 12.000 DCL -.07346 DCD -.01353 DCLM .00838 DCY .00252 DCYN -.00088 DCBL .00047  
 GRADIENT -.04785 DCD -.00066 DCLM -.00317 DCY .00006 DCYN -.00002 DCBL -.00002

ARC 14-120(CA23B) 747/1 AT: 0251 (ORBITER DATA)

(TNH009)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	8.000	-.01829	-.00162	.00258	.00103	-.00014	.00016
45.000	10.000	-.04308	-.00465	.00404	.00157	-.00041	.00045
45.000	12.000	-.05644	-.00810	.00584	.00279	-.00080	.00001
	GRADIENT	-.04649	-.00225	-.00359	.00004	.00001	-.00004

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-.01271	-.00111	.00281	.00147	-.00014	.00008
50.000	10.000	-.03660	-.00388	.00371	.00172	-.00047	.00021
50.000	12.000	-.05147	-.00685	.00506	.00266	-.00095	-.00002
	GRADIENT	-.04612	-.00265	-.00370	.00004	.00001	-.00005

ARC 14-120(CA23B) 747/1 AT: 0251 (ORBITER DATA)

(TNH010) ( 17 OCT 75 )

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	8.000	-.00912	-.00558	.01110	.00276	.00020	.00036
3.500	10.000	-.05553	-.01027	.01195	.00153	-.00036	.00062
3.500	12.000	-.08620	-.02308	.01593	.00203	-.00049	.00024
	GRADIENT	-.04451	-.00679	-.00468	.00014	.00009	-.00014

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	8.000	-.01195	-.00454	.00900	.00144	.00005	.00046
7.500	10.000	-.05278	-.00933	.01033	.00143	-.00027	.00089
7.500	12.000	-.09380	-.02051	.01399	.00193	-.00062	.00047
	GRADIENT	-.04552	-.00507	-.00425	.00012	.00006	-.00011

DATE 23 MAR 76 TABULATED SOURCE DATA - CA23B  
ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(TNH010) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
LORB = 8.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	8.000	-.01473	-.00397	.00734	.00070	.00000	.00057
10.000	10.000	-.05048	-.00869	.00916	.00149	-.00016	.00119
10.000	12.000	-.08654	-.01853	.01263	.00198	-.00071	.00073
	GRADIENT	-.04611	-.00407	-.00400	.00011	.00004	-.00009

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	8.000	-.01291	-.00340	.00632	-.00005	-.00018	.00036
15.000	10.000	-.04344	-.00782	.00780	.00078	-.00035	.00087
15.000	12.000	-.08281	-.01688	.01090	.00138	-.00082	.00036
	GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	8.000	-.00777	-.00166	.00455	-.00062	-.00029	.00016
30.000	10.000	-.03449	-.00433	.00580	.00092	-.00052	.00069
30.000	12.000	-.06201	-.01068	.00805	.00073	-.00097	.00036
	GRADIENT	-.04785	-.00066	-.00317	.00006	-.00002	-.00002

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	8.000	-.00190	-.00083	.00402	.00008	-.00023	.00009
45.000	10.000	-.02209	-.00191	.00467	.00174	-.00048	.00064
45.000	12.000	-.04379	-.00554	.00601	.00159	-.00085	.00007
	GRADIENT	-.04649	-.00225	-.00359	.00004	.00001	-.00004

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-.02241	-.00051	.00351	.00025	-.00017	.00015
50.000	10.000	-.02204	-.00198	.00387	.00188	-.00047	.00046
50.000	12.000	-.03844	-.00409	.00541	.00204	-.00086	.00005
	GRADIENT	-.04612	-.00255	-.00370	.00004	.00001	-.00005

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REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YHRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZHRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = .000  
 RUDDER = .000 ELEVON = .000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	4.000	-.03110	-.00668	-.01256	.00115	.00011	.00094
3.500	6.000	-.07298	-.01038	-.01210	.00136	.00021	.00104
3.500	8.000	-.11267	-.01480	-.01181	.00097	.00015	.00094
	GRADIENT	-.04451	-.00679	-.00468	.00014	.00009	-.00014

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	4.000	-.02509	-.00641	.00992	.00109	.00018	.00088
7.500	6.000	-.06533	-.00940	.00961	.00094	.00012	.00077
7.500	8.000	-.10474	-.01352	.00934	.00145	.00027	.00073
	GRADIENT	-.04552	-.00507	-.00425	.00012	.00006	-.00011

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	4.000	-.02427	-.00605	.00855	.00158	.00023	.00071
10.000	6.000	-.05189	-.00874	.00846	.00101	.00015	.00073
10.000	8.000	-.10168	-.01289	.00841	.00089	.00016	.00063
	GRADIENT	-.04611	-.00407	-.00400	.00011	.00004	-.00009

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	4.000	-.02206	-.00498	.00687	.00167	.00027	.00053
15.000	6.000	-.05725	-.00765	.00711	.00116	.00025	.00064
15.000	8.000	-.09384	-.01142	.00775	.00075	.00021	.00059
	GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	4.000	-.01858	-.00359	.00465	.00062	.00006	.00021
30.000	6.000	-.04517	-.00479	.00537	-.00019	-.00009	.00031
30.000	8.000	-.07081	-.00756	.00645	-.00044	-.00007	.00028
	GRADIENT	-.04785	-.00366	-.00317	.00006	-.00002	-.00002

DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

(TNH011) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAO	DCL	DCD	DCLM	DCY	DCYN
4.000	-.01203	-.00214	.00336	.00017	-.00003
6.000	-.03185	-.00325	.00450	.00016	-.00004
8.000	-.04693	-.00481	.00565	.00100	.00008
GRADIENT		-.00225	-.00359	.00004	.00001

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAO	DCL	DCD	DCLM	DCY	DCYN
4.000	-.01203	-.00158	.00294	.00007	-.00005
6.000	-.02703	-.00284	.00427	.00042	.00001
8.000	-.03915	-.00399	.00544	.00123	.00011
GRADIENT		-.00265	-.00370	.00004	.00001

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAO	DCL	DCD	DCLM	DCY	DCYN
6.000	-.01616	-.00553	.01230	.00016	.00010
8.000	-.05860	-.00916	.01296	.00115	.00026
10.000	-.10887	-.01689	.01624	.00201	.00010
GRADIENT		-.00679	-.00468	.00014	.00009

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

ALPHAO	DCL	DCD	DCLM	DCY	DCYN
6.000	-.01810	-.00528	.00929	.00014	.00015
8.000	-.05844	-.00872	.01031	.00031	.00020
10.000	-.10192	-.01562	.01339	-.00013	.00008
GRADIENT		-.00507	-.00425	.00012	.00006

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

DCBL  
 .00017  
 .00027  
 .00025  
 -.00004

DCBL  
 .00018  
 .00028  
 .00029  
 -.00005

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DCBL  
 .00121  
 .00117  
 .00147  
 -.00014

DCBL  
 .00112  
 .00100  
 .00136  
 -.00011

(TNH013) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 TORR = .000 ELEVON = 5.000  
 DY = .000 UX = .000  
 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	6.000	-.01727	-.00502	.00856	-.00038	.00023	.00093
10.000	8.000	-.05713	-.00858	.00974	-.00037	.00008	.00087
10.000	10.000	-.09976	-.01519	.01266	-.00001	.00004	.03121
GRADIENT		-.04611	-.00407	-.00400	.00011	.00004	-.00009

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	6.000	-.01726	-.00443	.00738	-.00026	.00001	.00079
15.000	8.000	-.05484	-.00726	.00916	-.00052	.00001	.00081
15.000	10.000	-.09540	-.01362	.01104	-.00020	-.00005	.00107
GRADIENT		-.04711	-.00234	-.00357	.00009	.00001	-.00006

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	6.000	-.01261	-.00297	.00574	-.00021	-.00010	.00029
30.000	8.000	-.04090	-.00516	.00691	-.00058	-.00009	.00045
30.000	10.000	-.07405	-.00959	.00907	.00081	-.00002	.00076
GRADIENT		-.04785	-.00066	-.00317	.00006	-.00002	-.00002

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	6.000	-.01131	-.00214	.00511	-.00064	-.00008	.00052
45.000	8.000	-.03079	-.00403	.00619	-.00016	-.00001	.00044
45.000	10.000	-.05832	-.00566	.00748	.00033	-.00016	.00063
GRADIENT		-.04649	-.00225	-.00359	.00004	.00001	-.00004

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	6.000	-.01202	-.00148	.00444	-.00048	-.00006	.00052
50.000	8.000	-.02761	-.00294	.00554	.00001	.00004	.00061
50.000	10.000	-.05121	-.00522	.00681	.00053	-.00013	.00076
GRADIENT		-.04612	-.00265	-.00370	.00004	.00001	-.00005



ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA) (TNH020) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORQ = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/0 PN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	4.000	-.00990	-.00368	.01292	-.00042	-.00011	.00055
7.500	6.000	-.05860	-.00767	.01215	-.00032	.00003	.00065
3.500	8.000	-.09517	-.01167	.01000	.00014	.00019	.00052
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0/0 PN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	4.000	-.00074	-.00308	.01037	-.00054	-.00009	.00042
7.500	6.000	-.05794	-.00693	.00941	-.00017	.00007	.00066
7.500	8.000	-.03170	-.01100	.00797	.00048	.00020	.00037
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0/0 PN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	4.000	.00048	-.00258	.00911	.00042	.00006	.00020
10.000	6.000	-.05070	-.00634	.00880	.00043	.00013	.00040
10.000	8.000	-.08358	-.01038	.00695	.00061	.00030	.00039
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0/0 PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	4.000	.00138	-.00216	.00723	-.00014	-.00007	.00007
15.000	6.000	-.04746	-.00530	.00705	-.00026	.00006	.00047
15.000	8.000	-.08126	-.00881	.00614	-.00019	.00012	.00035
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0/0 PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	4.000	-.00055	-.00057	.00431	-.00052	-.00012	.00001
30.000	6.000	-.03872	-.00301	.00493	-.00124	-.00013	.00039
30.000	8.000	-.06488	-.00572	.00464	-.00053	-.00003	.00006
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B

560

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITTER DATA)

(TNH020) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	4.000	-.00219	-.00001	.00283	-.00097	-.00015	.00015
45.000	6.000	-.03306	-.00190	.00346	-.00117	-.00010	.00032
45.000	8.000	-.05180	-.00384	.00359	-.00077	-.00007	.00009
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	4.000	-.00255	.00006	.00238	-.00126	-.00018	.00023
50.000	6.000	-.03184	-.00161	.00289	-.00117	-.00008	.00032
50.000	8.000	-.04729	-.00326	.00328	-.00089	-.00010	.00012
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITTER DATA)

(TNH021) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	4.000	-.01390	-.00559	.01421	.00007	-.00003	.00054
3.500	6.000	-.05994	-.00915	.01362	.00027	.00009	.00074
3.500	8.000	-.09467	-.01290	.01180	.00011	.00011	.00049
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	4.000	-.01539	-.00517	.01133	.00060	.00008	.00032
7.500	6.000	-.05556	-.00844	.01105	-.00005	.00003	.00072
7.500	8.000	-.09067	-.01213	.00958	-.00019	.00008	.00038
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

TABLATED SOURCE DATA - CA23B

DATE 23 MAR 76

(TNH02:1) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2590.0000 50.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6200 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	4.000	-.01598	-.00479	.00965	.00011	-.00003	.00028
10.000	6.000	-.05370	-.00758	.00994	.00009	-.00016	.00064
10.000	8.000	-.08742	-.01149	.00872	-.00034	.00003	.00034
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	4.000	-.00925	-.00400	.00827	.00004	-.00009	-.00005
15.000	6.000	-.04865	-.00678	.00852	-.00066	-.00004	.00048
15.000	8.000	-.08049	-.00994	.00758	-.00021	.00005	.00034
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	4.000	-.00309	-.00221	.00520	-.00077	-.00014	.00018
30.000	6.000	-.03787	-.00431	.00611	-.00094	-.00008	.00027
30.000	8.000	-.06251	-.00648	.00579	-.00059	-.00000	.00018
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	4.000	-.00693	-.00095	.00373	-.00174	-.00024	.00031
45.000	6.000	-.02615	-.00260	.00498	-.00164	-.00019	.00030
45.000	8.000	-.04818	-.00434	.00483	-.00153	-.00002	.00033
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	4.000	-.07600	-.00357	.00306	-.00027	-.00032	.00032
50.000	6.000	-.02205	-.00468	.00468	-.00198	-.00025	.00032
50.000	8.000	-.04358	-.00370	.00455	-.00187	-.00002	.00041
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

DATE 23 MAR 76

TABULATED SOURCE DATA - CA238

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(14022)

REFERENCE DATA

SREF = 2690.0000 50.FT.    YMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN.        YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN.        ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000    STAB = 5.000  
 RUDDER = .000    ELEVON = .000  
 TORB = 8.000    DX = .000  
 DY = .000    MACH = .600

RUN NO.    0/ 0    RN/L = 3.31    GRADIENT INTERVAL = -5.00/ 5.00

DZ	3.500	ALPHA	8.000	DCL	-.00124	DCD	-.00607	DCLM	.01312	DCY	-.00096	DCYN	-.00008	DCBL	.00032
	3.500		10.000		-.03231		-.00857		.01364		.00001		-.00024		.00057
	3.500	GRADIENT	12.000		-.08264		-.02199		.02009		-.00036		-.00021		.00096
			GRADIENT	-.04790		-.00021	-.00290		-.00002		-.00001		-.00007		-.00007

RUN NO.    0/ 0    RN/L = 3.31    GRADIENT INTERVAL = -5.00/ 5.00

DZ	7.500	ALPHA	8.000	DCL	-.00080	DCD	-.00436	DCLM	.01098	DCY	-.00057	DCYN	-.00005	DCBL	.00023
	7.500		10.000		-.03173		-.00729		.01200		.00010		.00016		.00033
	7.500	GRADIENT	12.000		-.07618		-.01982		.01798		.00035		-.00027		.00065
			GRADIENT	-.04790		-.00021	-.00290		-.00002		-.00001		-.00007		-.00007

RUN NO.    0/ 0    RN/L = 3.31    GRADIENT INTERVAL = -5.00/ 5.00

DZ	10.000	ALPHA	8.000	DCL	-.00298	DCD	-.00312	DCLM	.00946	DCY	-.00307	DCYN	-.00002	DCBL	.00016
	10.000		10.000		-.03160		-.00634		.01068		.00038		.00013		.00008
	10.000	GRADIENT	12.000		-.07148		-.01818		.01637		.00079		-.00036		.00039
			GRADIENT	-.04790		-.00021	-.00290		-.00002		-.00001		-.00007		-.00007

RUN NO.    0/ 0    RN/L = 3.31    GRADIENT INTERVAL = -5.00/ 5.00

DZ	15.000	ALPHA	8.000	DCL	-.00150	DCD	-.00296	DCLM	.00788	DCY	-.00125	DCYN	-.00019	DCBL	.00010
	15.000		10.000		-.02886		-.00577		.01001		-.00056		-.00003		.00026
	15.000	GRADIENT	12.000		-.05665		-.01675		.01524		.00160		-.00018		.00038
			GRADIENT	-.04790		-.00021	-.00290		-.00002		-.00001		-.00007		-.00007

RUN NO.    0/ 0    RN/L = 3.31    GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.000	ALPHA	8.000	DCL	-.00022	DCD	-.00162	DCLM	.00603	DCY	-.00086	DCYN	-.00013	DCBL	.00003
	30.000		10.000		-.02218		-.00388		.00769		-.00051		-.00008		-.00017
	30.000	GRADIENT	12.000		-.04790		-.01135		.01248		.00058		-.00035		.00024
			GRADIENT	-.04790		-.00021	-.00290		-.00002		-.00001		-.00007		-.00007

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA) (TNH022) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	8.000	-0.00334	-0.0090	-0.0428	-0.0135	-0.0016	-0.0004
45.000	10.000	-0.01757	-0.0258	.00603	-0.0116	-0.0013	.00014
45.000	12.000	-0.03564	-0.0851	.01021	.00018	-0.0033	.00036
	GRADIENT	-0.04790	-0.0021	-0.00290	.00002	-0.0001	-0.00007

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-0.00467	-0.0074	.00380	-0.0113	-0.0005	.00012
50.000	10.000	-0.01871	-0.0226	.00546	-0.0115	-0.0012	.00018
50.000	12.000	-0.03532	-0.0823	.00932	.00044	-0.0024	.00030
	GRADIENT	-0.04790	-0.0021	-0.00290	.00002	-0.0001	-0.00007

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
ICRB = 8.000 DX = .000  
DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	6.000	-0.00012	-0.00474	.01262	-0.0030	-0.0000	.00096
3.500	8.000	-0.04316	-0.0770	.01243	-0.0023	.00004	.00055
3.500	10.000	-0.08094	-0.1276	.01548	.00031	.0022	.00038
	GRADIENT	-0.04790	-0.0021	-0.00290	.00002	-0.0001	-0.00007

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	6.000	-0.00121	-0.00453	.01017	-0.0043	-0.0001	.00071
7.500	8.000	-0.04069	-0.0746	.01039	-0.0036	.00001	.00045
7.500	10.000	-0.07808	-0.1191	.01288	-0.0028	.00005	.00025
	GRADIENT	-0.04790	-0.0021	-0.00290	.00002	-0.0001	-0.00007

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA) (TNH023) ( 17 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
ICRB = 6.000 DX = .000  
DY = .000 MACH = .600

ORIGINAL PAGE IS  
OF POOR QUALITY

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITTER DATA)

(TINH023) ( 17 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6200 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	6.000	-.00301	-.00431	.00905	-.00067	-.00004	.00072
10.000	8.000	-.04226	-.00714	.00931	-.00007	.00002	.00026
10.000	10.000	-.07382	-.01127	.01232	-.00005	.00009	.00020
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	6.000	-.00405	-.00374	.00768	-.00061	.00003	.00074
15.000	8.000	-.03440	-.00616	.00925	-.00071	-.00014	.00017
15.000	10.000	-.07083	-.01012	.01106	-.00008	.00007	.00019
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	6.000	-.00488	-.00254	.00531	-.00105	-.00005	.00055
30.000	8.000	-.03401	-.00431	.00608	-.00074	-.00003	.00019
30.000	10.000	-.05205	-.00625	.00895	-.00034	-.00004	.00010
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	6.000	-.00580	-.00155	.00403	-.00164	-.00018	.00045
45.000	8.000	-.02701	-.00282	.00483	-.00151	-.00019	.00026
45.000	10.000	-.03988	-.00390	.00718	-.00093	-.00015	.00029
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	6.000	-.00771	-.00113	.00376	-.00155	-.00015	.00060
50.000	8.000	-.02544	-.00237	.00473	-.00123	-.00012	.00019
50.000	10.000	-.03749	-.00310	.00671	-.00116	-.00011	.00039
GRADIENT		-.04790	-.00021	-.00290	.00002	-.00001	-.00007

( TNH024 ) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	6.000	-.00455	-.00580	.01270	-.00023	-.00002	.00000
3.500	8.000	-.04391	-.00914	.01304	-.00038	.00006	.00044
3.500	10.000	-.08318	-.01436	.01590	-.00002	.00010	.00026
GRADIENT		-.04790	-.00021	-.00290	-.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	6.000	-.00370	-.00549	.01069	-.00015	.00001	.00063
7.500	8.000	-.04355	-.00857	.01054	-.00042	.00013	.00041
7.500	10.000	-.07948	-.01316	.01355	-.00043	.00017	.00017
GRADIENT		-.04790	-.00021	-.00290	-.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	6.000	-.00409	-.00511	.00370	-.00085	-.00004	.00073
10.000	8.000	-.04223	-.00824	.01015	-.00016	.00008	.00037
10.000	10.000	-.07895	-.01273	.01267	-.00012	.00008	.00011
GRADIENT		-.04790	-.00021	-.00290	-.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	6.000	-.00741	-.00450	.00793	-.00057	-.00001	.00052
15.000	8.000	-.04183	-.00756	.00853	-.00066	-.00005	.00019
15.000	10.000	-.07190	-.01141	.01141	-.00024	.00014	.00008
GRADIENT		-.04790	-.00021	-.00290	-.00002	-.00001	-.00007

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	6.000	-.00391	-.00281	.00563	-.00088	-.00008	.00034
30.000	8.000	-.03158	-.00492	.00654	-.00092	-.00015	.00000
30.000	10.000	-.05311	-.00709	.00919	-.00018	.00000	.00008
GRADIENT		-.04790	-.00021	-.00290	-.00002	-.00001	-.00007

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCBL
45.000	6.000	-.00627	-.00167	.00412	-.00167	.00037
45.000	8.000	-.02560	-.00314	.00506	-.00119	-.00013
45.000	10.000	-.04161	-.00461	.00695	-.00021	-.00006
	GRADIENT	-.04790	-.00021	-.00290	-.00003	-.00007

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

(TNH024) ( 17 OCT 75 )

RUN NO. 0 / 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCBL
50.000	6.000	-.00442	-.00135	.00382	-.00150	.00021
50.000	8.000	-.02308	-.00280	.00476	-.00098	-.00010
50.000	10.000	-.03920	-.00417	.00635	-.00112	-.00013
	GRADIENT	-.04790	-.00021	-.00290	-.00002	-.00007

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCBL
3.500	6.000	-.00409	-.00649	-.01166	-.00112	.00066
3.500	10.000	-.03293	-.00925	.01319	.00041	.00063
3.500	12.000	-.09379	-.02540	.01907	.00069	.00010
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00007

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

(TNH025) ( 17 OCT 75 )

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCBL
7.500	6.000	-.00389	-.00586	.01026	.00038	.00029
7.500	10.000	-.03787	-.00904	.01152	.00003	.00036
7.500	12.000	-.09575	-.02277	.01760	.00081	.00024
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00007

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

(TNH025) ( 17 OCT 75 )



ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (TNH025) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 PN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	8.000	-.00316	-.00549	.00922	-.00034	-.00006	.00005
10.000	10.000	-.04320	-.00903	.01002	-.00041	.00003	.00025
10.000	12.000	-.07980	-.02072	.01649	.00111	-.00022	.00037
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0/ 0 PN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	8.000	-.00537	-.00486	.00804	.00028	-.00001	-.00009
15.000	10.000	-.03619	-.00804	.00959	.00030	.00009	-.00020
15.000	12.000	-.07485	-.01956	.01541	.00035	-.00031	.00027
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0/ 0 PN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	8.000	-.00463	-.00305	.00561	-.00046	-.00008	-.00006
30.000	10.000	-.03011	-.00529	.00737	-.00021	.00003	.00015
30.000	12.000	-.05592	-.01372	.01236	.00024	-.00030	.00046
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0/ 0 PN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	8.000	-.00564	-.00198	.00386	-.00070	-.00009	.00002
45.000	10.000	-.02192	-.00349	.00562	-.00052	-.00005	.00003
45.000	12.000	-.04026	-.01004	.01005	-.00013	-.00032	.00055
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

RUN NO. 0/ 0 PN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-.00508	-.00158	.00328	-.00119	-.00010	.00027
50.000	10.000	-.01849	-.00272	.00530	-.00057	-.00007	.00017
50.000	12.000	-.03715	-.00927	.00953	-.00021	-.00026	.00042
	GRADIENT	-.04790	-.00021	-.00290	.00002	-.00001	-.00007

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(TNH027) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 471.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	8.000	-.01151	-.00350	.01424	.00033	.00036	.00018
3.500	10.000	-.04437	-.00693	.01458	.00332	.00123	.00022
3.500	12.000	-.09157	-.02118	.02260	.00238	.00009	.00049
GRADIENT		-.03891	-.00547	-.00748	-.00023	-.00011	-.00038

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	8.000	-.01254	-.00359	.01161	.00150	.00034	.00005
7.500	10.000	-.04592	-.00699	.01222	.00234	.00084	.00045
7.500	12.000	-.08851	-.02041	.01871	.00282	.00010	.00034
GRADIENT		-.04155	-.00392	-.00648	-.00015	-.00009	-.00025

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	8.000	-.01240	-.00346	.00938	.00228	.00042	.00003
10.000	10.000	-.04638	-.00684	.01024	.00129	.00062	.00072
10.000	12.000	-.08702	-.01993	.01558	.00292	.00002	.00024
GRADIENT		-.04310	-.00302	-.00589	-.00010	-.00009	-.00017

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	8.000	-.01634	-.00422	.00780	.00254	-.00002	-.00029
15.000	10.000	-.04700	-.00739	.00925	.00226	.00007	.00026
15.000	12.000	-.08152	-.01880	.01443	.00445	-.00041	.00017
GRADIENT		-.04577	-.00146	-.00488	-.00002	-.00007	-.00004

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAO	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	8.000	-.01080	-.00218	.00443	.00252	.00009	-.00060
30.000	10.000	-.03596	-.00447	.00598	.00196	.00006	.00024
30.000	12.000	-.05027	-.01355	.01147	.00362	-.00026	.00012
GRADIENT		-.04833	.00005	-.00394	.00017	-.00003	.00008

REFERENCE DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN.      YMRP = .0000 IN. YO  
 BREF = 935.6900 IN.      ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000      STAB = 5.000  
 RUDDER = .000      ELEVON = .000  
 TORB = 8.000      DX = .000  
 DY = .000      MACH = .600

RUN NO. 0 / 0      RN/L = 3.30      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
45.000	.00026	-.00129	.00511	.00162	-.00072	
50.000	8.000	-.00254	.00587	.00212	-.00018	
45.000	10.000	-.00962	.01044	.00255	.00037	
	12.000	-.00141	-.00493	.00028	-.00006	
	GRADIENT					

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
50.000	.00294	-.00122	.00403	.00187	-.00076	
50.000	8.000	-.01945	.00490	.00228	-.00014	
50.000	10.000	-.03623	.01019	.00222	.00052	
	12.000	-.003179	-.00519	.00032	-.00009	
	GRADIENT					

RUN NO. 0 / 0      RN/L = 3.30      GRADIENT INTERVAL = -5.00/ 5.00

ARC 14-120(CA23B) 747/1 ATI 03SI (ORBITER DATA)      (TNH034) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN.      YMRP = .0000 IN. YO  
 BREF = 935.6900 IN.      ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000      STAB = 5.000  
 RUDDER = .000      ELEVON = .000  
 TORB = 6.000      DX = .000  
 DY = .000      MACH = .600

RUN NO. 0 / 0      RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
3.500	.01786	-.00546	.01903	.00332	-.00007	
3.500	6.000	-.00908	.01713	.00371	.00018	
3.500	8.000	-.05470	.01916	.00357	.00044	
	10.000	-.01183	-.00748	-.00023	-.00011	
	GRADIENT					

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
7.500	.01641	-.00498	.01416	.00332	-.00017	
7.500	6.000	-.00932	.01250	.00314	.00008	
7.500	8.000	-.05169	.01484	.00294	.00012	
	10.000	-.01389	-.00548	-.00015	-.00009	
	GRADIENT					

RUN NO. 0 / 0      RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

ORIGINAL PAGE IS  
 OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(TNH034) (17 OCT 76)

REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	6.000	-.01663	-.00514	.01181	.00282	-.00019	-.00002
10.000	8.000	-.05337	-.00797	.01022	.00308	-.00006	-.00002
10.000	10.000	-.09114	-.01320	.01322	.00278	.00015	.00002
	GRADIENT	-.04310	-.00302	-.00589	-.00010	-.00009	-.00017

RUN NO. 0/0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	6.000	-.01736	-.00449	.00851	.00243	-.00042	-.00011
15.000	8.000	-.05103	-.00746	.00710	.00309	-.00016	-.00018
15.000	10.000	-.08662	-.01206	.01048	.00274	.00016	.00009
	GRADIENT	-.04577	-.00146	-.00488	-.00002	-.00007	-.00004

RUN NO. 0/0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	6.000	-.01202	-.00293	.00625	.00237	-.00038	-.00055
30.000	8.000	-.03756	-.00503	.00552	.00307	-.00000	-.00047
30.000	10.000	-.06403	-.00813	.00875	.00228	-.00025	-.00011
	GRADIENT	-.04833	-.00005	-.00394	.00017	-.00003	.00008

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	6.000	-.00847	-.00262	.00520	.00176	-.00033	-.00047
45.000	8.000	-.02439	-.00376	.00655	.00196	-.00028	-.00073
45.000	10.000	-.04397	-.00545	.00784	.00196	-.00026	.00003
	GRADIENT	-.04582	-.00141	-.00493	.00028	.00000	-.00006

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	6.000	-.00897	-.00227	.00489	.00178	-.00011	-.00015
50.000	8.000	-.01920	-.00361	.00681	.00173	-.00018	-.00071
50.000	10.000	-.03858	-.00474	.00781	.00234	-.00013	-.00021
	GRADIENT	-.04517	-.00179	-.00519	.00032	.00002	-.00009

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (TNH035) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	4.000	-.02033	-.00358	.01564	.00214	.00037	.00043
3.500	6.000	-.06597	-.00737	.01506	.00184	.00028	.00059
3.500	8.000	-.09756	-.01132	.01203	.00136	.00024	.00029
	GRADIENT	-.03891	-.00547	-.00748	-.00023	-.00011	-.00038

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	4.000	-.01822	-.00313	.01038	.00156	.00048	.00039
7.500	6.000	-.06073	-.00700	.01018	.00141	.00028	.00041
7.500	8.000	-.09203	-.01043	.00709	.00087	.00022	.00020
	GRADIENT	-.04155	-.00392	-.00648	-.00015	-.00009	-.00025

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	4.000	-.01384	-.00299	.00824	.00111	.00052	.00046
10.000	6.000	-.05231	-.00647	.00647	.00120	.00032	.00022
10.000	8.000	-.09542	-.00979	.00600	.00112	.00036	.00003
	GRADIENT	-.04310	-.00302	-.00589	-.00010	-.00009	-.00017

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	4.000	-.01238	-.00241	.00569	.00077	.00039	.00020
15.000	6.000	-.04890	-.00548	.00626	.00056	.00015	-.00006
15.000	8.000	-.08142	-.00859	.00371	.00096	.00030	.00007
	GRADIENT	-.04577	-.00146	-.00488	-.00002	-.00007	-.00004

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	4.000	-.00989	-.00117	.00271	-.00011	.00025	.00026
30.000	6.000	-.03666	-.00329	.00408	.00024	.00002	-.00017
30.000	8.000	-.06077	-.00534	.00328	.00027	.00010	-.00017
	GRADIENT	-.04833	.00005	-.00334	.00017	-.00003	.00008

DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(TNH035) ( 17

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
LORR = 4.000 DX = .000  
DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCD DCY DCBL  
45.000 4.000 .00098 -.00026 .00223 -.00039 .00005  
45.000 6.000 -.02753 -.00184 -.00334 -.00049 -.00001  
45.000 8.000 -.03984 -.00328 -.00393 -.00062 -.00016  
GRADIENT -.04582 -.00141 -.00493 .00028 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCD DCY DCBL  
50.000 4.000 .00466 .00001 .00214 -.00051 .00006  
50.000 6.000 -.02542 -.00141 -.00314 -.00086 -.00011  
50.000 8.000 -.03415 -.00270 -.00379 -.00091 -.00026  
GRADIENT -.04517 -.00179 -.00519 .00032 .00002 .00000

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(TNH035) ( 23 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = 10.000 ELEVON = .000  
LORR = 6.000 DX = .000  
DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCD DCY DCBL  
3.500 4.000 .00098 -.00026 .00223 -.00039 .00005  
3.500 6.000 -.02753 -.00184 -.00334 -.00049 -.00001  
3.500 8.000 -.03984 -.00328 -.00393 -.00062 -.00016  
GRADIENT -.04582 -.00141 -.00493 .00028 .00000 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCD DCY DCBL  
7.500 4.000 .00098 -.00026 .00223 -.00039 .00005  
7.500 6.000 -.02753 -.00184 -.00334 -.00049 -.00001  
7.500 8.000 -.03984 -.00328 -.00393 -.00062 -.00016  
GRADIENT -.04582 -.00141 -.00493 .00028 .00000 .00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (TN4036) ( 23 OCT 75 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
8.000	.04496	-.00639	.00870	.00384	.00041	-.00010
10.000	-.08657	-.01124	.01085	.00295	.00038	.00005
GRADIENT	-.04195	-.00392	-.00648	-.00015	-.00009	-.00025

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
8.000	-.04311	-.00549	.00644	.00360	.00025	-.00008
10.000	-.07959	-.00385	.00836	.00297	.00032	-.00004
GRADIENT	-.04310	-.00302	-.00589	-.00010	-.00009	-.00017

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
8.000	-.02866	-.00374	.00510	.00271	.00007	-.00047
10.000	-.05692	-.00583	.00596	.00270	.00011	-.00026
GRADIENT	-.04577	-.00146	-.00488	-.00002	-.00007	-.00004

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
8.000	-.01920	-.00185	.00435	.00225	.00000	-.00056
10.000	-.03935	-.00314	.00386	.00279	.00010	-.00018
GRADIENT	-.04833	.00005	-.00394	.00017	-.00003	.00008

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
8.000	-.01803	-.00153	.00389	.00207	.00014	-.00050
10.000	-.03699	-.00194	.00533	.00259	-.00009	-.00019
GRADIENT	-.04682	-.00141	-.00493	.00028	.00000	-.00006

DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B

FILE 0564

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(TNH037) ( 23 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHA0	DCL	DCO	DCLM	DCY	DCYN	DCBL
6.000	-.01248	-.00441	.01853	.00401	.00058	.00048
8.000	-.05834	-.00880	.01711	.00299	.00017	.00017
10.000	-.10367	-.01488	.01863	.00327	.00071	.00041
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHA0	DCL	DCO	DCLM	DCY	DCYN	DCBL
6.000	-.01332	-.00456	.01268	.00311	.00017	.00018
8.000	-.03422	-.00833	.01209	.00353	.00041	-.00011
10.000	-.09400	-.01364	.01445	.00258	.00044	-.00003
GRADIENT	-.03891	-.00347	-.00748	-.00023	-.00011	-.00038

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHA0	DCL	DCO	DCLM	DCY	DCYN	DCBL
6.000	-.01025	-.00431	.01074	.00287	.00004	.00016
8.000	-.05564	-.00818	.00957	.00230	.00022	.00001
10.000	-.09193	-.01299	.01239	.00231	.00042	.00002
GRADIENT	-.04155	-.00392	-.00548	-.00015	-.00009	-.00025

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHA0	DCL	DCO	DCLM	DCY	DCYN	DCBL
6.000	-.00819	-.00384	.00794	.00239	.00002	.00003
8.000	-.05537	-.00729	.00637	.00300	.00026	-.00018
10.000	-.04834	-.01187	.00967	.00195	.00013	.00010
GRADIENT	-.04310	-.00302	-.00589	-.00010	-.00009	-.00017

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHA0	DCL	DCO	DCLM	DCY	DCYN	DCBL
6.000	-.00732	-.00253	.00480	.00175	-.00009	-.00032
8.000	-.04208	-.00488	.00470	.00231	.00021	-.00034
10.000	-.05407	-.00738	.00799	.00204	.00014	.00013
GRADIENT	-.04577	-.00146	-.00498	-.00002	-.00007	-.00004



REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BRF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHA  
 6.000  
 8.000  
 10.000  
 GRADIENT = -.04833

DCL  
 -.01336  
 -.02421  
 -.04157  
 -.04833

DCD  
 -.00198  
 -.00337  
 -.00469  
 .00005

DCLM  
 .00251  
 .00599  
 .00697  
 -.00394

DCY  
 .00180  
 .00194  
 .00203  
 .00017

DCBL  
 -.00036  
 -.00068  
 -.00008  
 .00008

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHA  
 6.000  
 8.000  
 10.000  
 GRADIENT = -.04582

DCL  
 -.00025  
 -.02044  
 -.03793  
 -.04582

DCD  
 -.00160  
 -.00284  
 -.00378  
 -.00141

DCLM  
 .00313  
 .00545  
 .00641  
 -.00493

DCY  
 .00160  
 .00153  
 .00158  
 .00028

DCBL  
 -.00027  
 -.00052  
 -.00009  
 -.00006

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BRF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHA  
 6.000  
 8.000  
 10.000  
 GRADIENT = .00050

DCL  
 .00191  
 -.04490  
 -.09743  
 .00050

DCD  
 -.00591  
 -.01010  
 -.01677  
 .00000

DCLM  
 .01854  
 .01811  
 .02049  
 .00000

DCY  
 .00218  
 .00268  
 .00352  
 .00000

DCBL  
 .00019  
 .00045  
 .00010  
 .00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

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ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(TNH03B) ( 23 75 )

REFERENCE DATA

SPEF = 2630.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 471.8100 IN. YMRP = .0000 IN. YO  
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = .000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 7.500

ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
6.000	.00514	-.00517	.01237	.00170	-.00005	.00004
8.000	-.03850	-.00917	.01224	.00238	-.00026	.00015
10.000	-.08369	-.01503	.01475	.00294	-.00007	-.00023
GRADIENT	-.07267	-.01500	-.00115	.00191	-.00031	-.00009

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 10.000

ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
6.000	.00526	-.00456	.00919	.00173	-.00009	-.00006
8.000	-.03481	-.00822	.00988	.00231	-.00029	.00007
10.000	-.08228	-.01438	.01234	.00284	-.00013	-.00014
GRADIENT	-.07267	-.01500	-.00115	.00191	-.00031	-.00009

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 15.000

ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
6.000	-.00215	-.00413	.00616	.00208	-.00013	-.00019
8.000	-.03194	-.00752	.00777	.00234	-.00032	-.00002
10.000	-.07386	-.01269	.01053	.00298	-.00026	-.00018
GRADIENT	-.07267	-.01500	-.00115	.00191	-.00031	-.00009

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 30.000

ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
6.000	.00582	-.00276	.00471	.00175	-.00006	-.00032
8.000	-.02052	-.00504	.00569	.00179	-.00014	.00001
10.000	-.05927	-.00883	.00782	.00274	-.00017	-.00016
GRADIENT	-.07267	-.01500	-.00115	.00191	-.00031	-.00009

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 45.000

ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
6.000	.00301	-.00175	.00343	.00154	-.00001	-.00024
8.000	-.02908	-.00352	.00439	.00212	-.00026	-.00004
10.000	-.04768	-.00648	.00636	.00225	-.00003	-.00014
GRADIENT	-.07267	-.01500	-.00115	.00191	-.00031	-.00009

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (TNH038) ( 23 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.07267 -.01500 -.00115 DCBL = -.00044  
 DCYN = -.00026

PARAMETRIC DATA

DCZ = 50.000  
 ALPHA = .00170 DCL = .00164 DCD = .00321 DCY = .00112  
 8.000 -.01478 -.00325 .00423 .00170  
 10.000 -.04308 -.00553 .00595 .00265  
 GRADIENT = -.07267 -.01500 -.00115

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHA = .00170 DCL = .00164 DCD = .00321 DCY = .00112  
 8.000 -.01478 -.00325 .00423 .00170  
 10.000 -.04308 -.00553 .00595 .00265  
 GRADIENT = -.07267 -.01500 -.00115

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA) (TNH039) ( 23 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = 10.000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.04451 -.00679 -.00468 DCBL = .00089  
 DCYN = .00041

PARAMETRIC DATA

DCZ = 3.500  
 ALPHA = -.05438 DCL = -.01020 DCD = .00328 DCY = .00041  
 8.000 -.10282 .01741 .01666 .00155  
 10.000 -.04451 -.00679 -.00468 .00014  
 GRADIENT = -.04451 -.00679 -.00468

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHA = -.05438 DCL = -.01020 DCD = .00328 DCY = .00041  
 8.000 -.10282 .01741 .01666 .00155  
 10.000 -.04451 -.00679 -.00468 .00014  
 GRADIENT = -.04451 -.00679 -.00468

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA) (TNH039) ( 23 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = 10.000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = -.04451 -.00679 -.00468 DCBL = .00089  
 DCYN = .00041

PARAMETRIC DATA

DCZ = 7.500  
 ALPHA = -.04489 DCL = .01019 DCD = .00290 DCY = .00043  
 8.000 -.09059 .01553 .00270 .00021  
 10.000 -.04451 -.00507 -.00425 .00012  
 GRADIENT = -.04451 -.00507 -.00425

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHA = .004123 DCL = .00948 DCY = .00030  
 8.000 -.09414 -.01527 .00208 .00020  
 10.000 -.04451 -.00407 -.00400 .00004  
 GRADIENT = -.04451 -.00407 -.00400

PARAMETRIC DATA

DCBL = .00056  
 DCYN = .00030  
 DCY = .00237  
 DCY = .00011

DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B

868

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

( TNH039) ( , 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.9100 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0125

XMRP = 1109.0000 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 LORR = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
8.000	-.03908	-.00747	.00823	.00173	.00023	.00056
10.000	-.09631	-.01371	.01154	.00203	.00021	.00052
GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
8.000	-.02994	-.00503	.00638	.00137	.00009	.00022
10.000	-.05831	-.00851	.00986	.00180	.00007	.00022
GRADIENT	-.04785	-.00066	-.00317	.00006	-.00002	-.00002

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
8.000	-.01664	-.00362	.00575	.00203	.00009	.00000
10.000	-.04666	-.00619	.00769	.00248	.00008	-.00015
GRADIENT	-.04659	-.00225	-.00359	.00004	.00001	-.00004

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
8.000	-.01470	-.00341	.00535	.00210	.00011	.00006
10.000	-.04220	-.00532	.00694	.00205	.00001	-.00009
GRADIENT	-.04612	-.00265	-.00370	.00004	.00001	-.00005

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	4.000	-.02039	-.00545	.01175	.00226	.00038	.00103
3.500	6.000	-.06091	-.00930	.01167	.00210	.00030	.00107
3.500	8.000	-.10117	-.01364	.01166	.00231	.00037	.00097
	GRADIENT	-.04451	-.00679	-.00468	.00014	.00009	-.00014

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	4.000	-.01524	-.00487	.00862	.00238	.00026	.00063
7.500	6.000	-.05715	-.00831	.00842	.00168	.00022	.00085
7.500	8.000	-.09689	-.01268	.00876	.00154	.00027	.00087
	GRADIENT	-.04552	-.00507	-.00425	.00012	.00006	-.00011

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	4.000	-.01397	-.00462	.00741	.00291	.00037	.00055
10.000	6.000	-.05200	-.00778	.00793	.00190	.00027	.00072
10.000	8.000	-.09185	-.01194	.00812	.00154	.00027	.00070
	GRADIENT	-.04611	-.00407	-.00400	.00011	.00004	-.00009

RUN NO. 0/ 0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	4.000	-.01824	-.00414	.00522	.00154	.00017	.00028
15.000	6.000	-.04705	-.00684	.00673	.00109	.00008	.00064
15.000	8.000	-.08360	-.01053	.00734	.00058	.00010	.00076
	GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	4.000	-.01359	-.00269	.00330	.00121	.00006	-.00010
30.000	6.000	-.03375	-.00439	.00533	.00138	.00008	.00013
30.000	8.000	-.06529	-.00709	.00555	.00044	.00008	.00046
	GRADIENT	-.04785	-.00056	-.00317	.00006	-.00002	-.00002

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TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(TNH040) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	4.000	-.00796	-.00159	.00261	.00108	.00006	-.00008
45.000	6.000	-.02867	-.00287	.00416	.00104	.00001	-.00016
45.000	8.000	-.04340	-.00458	.00528	.00132	.00011	.00027
	GRADIENT	-.04649	-.00225	-.00359	.00004	.00001	-.00004

RUN NO. 0/0 RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	4.000	-.00684	-.00131	.00238	.00077	.00002	-.00005
50.000	6.000	-.02764	-.00237	.00369	.00069	-.00005	.00024
50.000	8.000	-.03577	-.00375	.00527	.00154	.00009	.00026
	GRADIENT	-.04612	-.00265	-.00370	.00004	.00001	-.00005

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(TNHX10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	10.000	-.03575	-.01037	.01199	.00150	-.00035	.00063
3.500	12.000	-.09646	-.02320	.01598	.00199	-.00048	.00024
	GRADIENT	-.04451	-.00679	-.00468	.00014	.00009	-.00014

RUN NO. 0/0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	10.000	-.05298	-.00942	.01037	.00140	-.00027	.00090
7.500	12.000	-.09099	-.02060	.01401	.00191	-.00062	.00047
	GRADIENT	-.04552	-.00507	-.00425	.00012	.00006	-.00011

ARC 14-1201(CA23B) 747/1 A11 0251 (ORBITER DATA) (TNHX10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.5900 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORR = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA 10.000 DCL DCD DCLM DCY DCYN DCBL  
 10.000 -.05066 -.00876 -.00920 .00146 -.00016  
 12.000 -.08665 -.01867 .01262 .00197 -.00071  
 GRADIENT -.04611 -.00407 -.00400 .00011 .00004  
 -.00009

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA 10.000 DCL DCD DCLM DCY DCYN DCBL  
 10.000 -.04969 -.00791 .00785 .00075 -.00035  
 12.000 -.08298 -.01697 .01092 .00135 -.00082  
 GRADIENT -.04711 -.00234 -.00357 .00009 .00001  
 -.00006

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA 10.000 DCL DCD DCLM DCY DCYN DCBL  
 10.000 -.03451 -.00435 .00581 .00091 -.00052  
 12.000 -.06216 -.01078 .00807 .00073 -.00096  
 GRADIENT -.04785 -.00066 -.00317 .00006 -.00002  
 -.00002

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA 10.000 DCL DCD DCLM DCY DCYN DCBL  
 10.000 -.02022 -.00194 .00467 .00172 -.00048  
 12.000 -.04393 -.00561 .00601 .00159 -.00085  
 GRADIENT -.04649 -.00225 -.00359 .00004 .00001  
 -.00004

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA 10.000 DCL DCD DCLM DCY DCYN DCBL  
 10.000 -.02212 -.00202 .00389 .00187 -.00047  
 12.000 -.04954 -.00515 .00542 .00202 -.00086  
 GRADIENT -.04412 -.00265 -.00370 .00004 .00001  
 -.00005

ARC 14-120(CA23B) 747/1 AT1 025 (ORBITER DATA)

(TNHX13) ( 1 0 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	8.000	-.05901	-.00887	.01275	.00122	.00024	.00114
3.500	10.000	-.10852	-.01668	.01608	.00027	.00009	.00146
	GRADIENT	-.04451	-.00679	-.00468	.00014	.00009	-.00014

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	8.000	-.05802	-.00852	.01020	.00037	.00019	.00098
7.500	10.000	-.10152	-.01536	.01324	-.00005	.00007	.00136
	GRADIENT	-.04552	-.00507	-.00425	.00012	.00006	-.00011

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	8.000	-.05668	-.00839	.00963	-.00029	.00008	.00087
10.000	10.000	-.09935	-.01493	.01250	.00005	.00003	.00122
	GRADIENT	-.04611	-.00407	-.00400	.00011	.00004	-.00009

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	8.000	-.05432	-.00707	.00807	-.00055	.00001	.00080
15.000	10.000	-.09492	-.01339	.01094	-.00015	-.00006	.00107
	GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	8.000	-.04048	-.00498	.00681	-.00053	-.00009	.00045
30.000	10.000	-.07360	-.00934	.00895	.00080	-.00003	.00076
	GRADIENT	-.04785	-.00066	-.00317	.00006	-.00002	-.00002

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	8.000	-.03005	-.00373	.00603	-.00007	-.00003	.00044
45.000	10.000	-.05745	-.00628	.00734	.00037	-.00017	.00062
	GRADIENT	-.04643	-.00225	-.00359	.00004	.00001	-.00004



ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (TNHX13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
50.000	8.000	-.02713	-.00280	.00543	.00001	.00060
50.000	10.000	-.05048	-.00491	.00667	-.00014	.00075
	GRADIENT	-.04612	-.00255	-.00370	.00001	-.00005

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
3.500	8.000	-.06091	-.00899	.00940	.00030	.00139
3.500	10.000	-.11599	-.01682	.01105	-.00053	.00154
	GRADIENT	-.04451	-.00679	-.00468	.00014	-.00014

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
7.500	8.000	-.05585	-.00942	.00759	-.00000	.00108
7.500	10.000	-.10527	-.01539	.00648	-.00040	.00141
	GRADIENT	-.04552	-.00507	-.00425	.00012	-.00011

(TNHX14) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
10.000	8.000	-.05535	-.00821	.00538	-.00121	.00093
10.000	10.000	-.10389	-.01481	.00761	-.00099	.00136
	GRADIENT	-.04611	-.00407	-.00400	.00011	-.00004

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
15.000	8.000	-.05353	-.00703	.00528	-.00120	.00103
15.000	10.000	-.09590	-.01287	.00555	-.00057	.00123
	GRADIENT	-.04711	-.00234	-.00250	.00009	-.00006

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ARC 14-120(CA238) 747/1 AT1 02S1 (ORBITER DATA)

(TNHX14) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 30.000 8.000 -.03860 -.00494 -.00452 -.00123 .00001  
 30.000 10.000 -.07191 -.00888 .00574 -.00072 -.00010  
 GRADIENT -.04785 -.00056 -.00317 .00006 -.00002

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 45.000 8.000 -.02952 -.00391 .00415 -.00026 .00018  
 45.000 10.000 -.05116 -.00556 .00505 -.00019 .00061  
 GRADIENT -.04649 -.00225 -.00359 .00004 .00001

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 50.000 8.000 -.02251 -.00320 .00458 -.00152 .00059  
 50.000 10.000 -.04945 -.00522 .00495 -.00054 .00071  
 GRADIENT -.04612 -.00265 -.00370 .00004 .00001

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 3.500 10.000 -.05896 -.01387 .00831 -.00080 .00015  
 3.500 12.000 -.11503 -.02678 .01207 .00149 .00003  
 GRADIENT -.04451 -.00579 -.00468 .00014 .00009

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 7.500 10.000 -.06158 -.01118 .00772 .00003 .00007  
 7.500 12.000 -.10429 -.02369 .01082 .00131 .00024  
 GRADIENT -.04552 -.00507 -.00425 .00012 .00005

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA238) 747/1 AT1 02S1 (ORBITER DATA)

(TNHX15) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BRP = 935.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	10.000	-.05639	-.00946	.00721	.00064	.00004	.00139
10.500	12.000	-.09661	-.02157	.00998	.00132	-.00035	.00078
	GRADIENT	-.04611	-.00407	-.00400	.00011	.00004	-.00009

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	10.000	-.05254	-.00828	.00609	.00025	-.00013	.00115
15.000	12.000	-.08731	-.01873	.00853	.00067	-.00067	.00091
	GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	10.000	-.03332	-.00418	.00472	.00079	-.00024	.00096
30.000	12.000	-.06374	-.01162	.00643	.00105	-.00075	.00076
	GRADIENT	-.04785	-.00066	-.00317	.00006	-.00002	-.00002

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	10.000	-.02608	-.00303	.00389	.00061	-.00043	.00049
45.000	12.000	-.04649	-.00679	.00515	.00190	-.00065	.00034
	GRADIENT	-.04649	-.00225	-.00359	.00004	.00001	-.00004

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	10.000	-.02004	-.00208	.00380	.00098	-.00041	.00063
50.000	12.000	-.03890	-.00513	.00486	.00159	-.00081	.00044
	GRADIENT	-.04612	-.00265	-.00370	.00004	.00001	-.00005

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ARC 14-120(CA23B) 74771 AT1 0251 (ORBITER DATA)

(TNHX16) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 ICRB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 0/ 0 DCL DCD DCLM DCY DCYN DCBL  
 3.500 8.000 -.06113 -.00634 .00471 .00114 .00032  
 10.000 .11479 .01393 .00516 .00087 .00020  
 GRADIENT -.04451 -.00679 -.00468 .00014 .00009  
 -.00014

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 0/ 0 DCL DCD DCLM DCY DCYN DCBL  
 7.500 8.000 -.05638 -.00622 .00229 .00129 .00038  
 10.000 .10634 .01320 .00261 .00119 .00026  
 GRADIENT -.04552 -.00507 -.00425 .00012 .00006  
 -.00011

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 0/ 0 DCL DCD DCLM DCY DCYN DCBL  
 10.000 8.000 -.05640 -.00624 .00158 .00052 .00085  
 10.000 .10500 .01282 .00197 .00091 .00014  
 GRADIENT -.04611 -.00407 -.00400 .00011 .00004  
 -.00009

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 0/ 0 DCL DCD DCLM DCY DCYN DCBL  
 15.000 8.000 -.05120 -.00599 .00137 .00033 .00016  
 15.000 .09568 .01193 .00191 .00102 .00004  
 GRADIENT -.04711 -.00234 -.00357 .00009 .00001  
 -.00006

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 0/ 0 DCL DCD DCLM DCY DCYN DCBL  
 30.000 8.000 -.03825 -.00459 .00190 .00039 .00003  
 30.000 .07393 .00841 .00249 .00070 .00003  
 GRADIENT -.04785 -.00066 -.00317 .00006 .00002  
 -.00002

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 0/ 0 DCL DCD DCLM DCY DCYN DCBL  
 45.000 8.000 -.02714 -.00346 .00259 .00053 .00003  
 45.000 .05439 .00564 .00302 .00123 .00015  
 GRADIENT -.04649 -.00225 -.00359 .00004 .00001  
 -.00004

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (TNHX16) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-.02526	-.00300	.00266	.00078	.00009	.00043
50.000	10.000	-.05160	-.00494	.00298	.00145	-.00016	.00037
	GRADIENT	-.04612	-.00265	-.00370	.00004	.00001	-.00005

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	10.000	-.07194	-.01240	.00609	-.00009	.00004	.00072
3.500	12.000	-.11485	-.02458	.00788	.00325	-.00012	.00103
	GRADIENT	-.04451	-.00679	-.00468	.00014	.00009	-.00014

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0 / 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	10.000	-.05907	-.00811	.00395	.00186	.00000	.00109
10.000	12.000	-.10245	-.02173	.00552	.00170	-.00048	.00060
	GRADIENT	-.04511	-.00407	-.00400	.00011	.00004	-.00009

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA0	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	10.000	-.08730	-.00772	.00293	.00212	-.00009	.00072
15.000	12.000	-.15479	-.02025	.00436	.00168	-.00049	.00048
	GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (TNHX17) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = 5.000  
!ORB = 8.000 DX = 20.000  
DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ 30.000 ALPHA 10.000 DCL -.04240 DCD -.00486 DCLM .00233 DCY .00215 DCYN -.00015 DCBL .00070  
30.000 12.000 -.07031 -.01311 .00381 .00276 -.00080 .00026  
GRADIENT -.04785 -.00066 -.00317 .00006 -.00002

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ 45.000 ALPHA 10.000 DCL -.02781 DCD -.00341 DCLM .00257 DCY .00145 DCYN -.00049 DCBL .00054  
45.000 12.000 -.05007 -.00754 .00347 .00261 -.00082 .00009  
GRADIENT -.04649 -.00225 -.00359 .00004 .00001

RUN NO. 0 / 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ 50.000 ALPHA 10.000 DCL -.02792 DCD -.00301 DCLM .00242 DCY .00184 DCYN -.00034 DCBL .00043  
50.000 12.000 -.04699 -.00657 .00323 .00311 -.00078 .00008  
GRADIENT -.04612 -.00265 -.00370 .00004 .00001

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA) (TNHX27) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
!ORB = 8.000 DX = .000  
DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ 3.500 ALPHA 10.000 DCL -.04486 DCD -.00721 DCLM .01470 DCY .00335 DCYN .00121 DCBL .00023  
3.500 12.000 -.09157 -.02110 .00238 .00239 -.00008 .00047  
GRADIENT -.03831 -.00547 -.00748 -.00023 -.00011

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.500 ALPHA 10.000 DCL -.04611 DCD -.00713 DCLM .01227 DCY .00237 DCYN .00083 DCBL .00045  
7.500 12.000 -.06975 -.02045 .01666 .00283 -.00009 .00033  
GRADIENT -.04155 -.00392 -.00648 -.00015 -.00009

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (TNHX27) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 10.000 10.000 -.04655 -.01027 .00132 .00061 .00072  
 10.000 12.000 -.08741 -.02011 .00294 .00002 .00023  
 GRADIENT -.04310 -.00302 -.00589 -.00010 -.00009 -.00017

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 15.000 10.000 -.04708 -.00743 .00227 .00007 .00027  
 15.000 12.000 -.08172 -.01440 .00441 -.00041 .00017  
 GRADIENT -.04577 -.00146 -.00488 -.00002 -.00007 -.00004

RUN NO. 0 / 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 30.000 10.000 -.03599 -.00454 .00198 .00006 .00024  
 30.000 12.000 -.06044 -.01352 .00361 -.00026 .00011  
 GRADIENT -.04833 .00005 -.00394 .00017 -.00003 .00008

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 45.000 10.000 -.02090 -.00261 .00214 .00006 .00018  
 45.000 12.000 -.04167 -.00970 .00255 .00021 .00037  
 GRADIENT -.04582 -.00141 -.00493 .00028 .00000 -.00006

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 50.000 10.000 -.01949 -.00236 .00495 .00007 .00014  
 50.000 12.000 -.03651 -.00843 .01024 .00033 .00052  
 GRADIENT -.04517 -.00179 -.00519 .00032 .00002 -.00009

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA) (TNHX28) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
TORB = 6.000 DX = 10.000  
DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
3.500 8.000 -.05591 -.00731 -.0917 .00275 .00062 .00045  
3.500 10.000 -.10299 -.01249 .00935 .00283 .00103 .00051  
GRADIENT -.03891 -.00547 -.00748 -.00023 -.00011 -.00038

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
7.500 8.000 -.05119 -.00679 .00524 .00261 .00059 .00018  
7.500 10.000 -.09406 -.01194 .00584 .00240 .00084 .00033  
GRADIENT -.04155 -.00392 -.00648 -.00015 -.00009 -.00025

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
10.000 8.000 -.04934 -.00672 .00360 .00194 .00037 .00011  
10.000 10.000 -.03185 -.01149 .00454 .00192 .00065 .00038  
GRADIENT -.04310 -.00302 -.00589 -.00010 -.00009 -.00017

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
15.000 8.000 -.04749 -.00613 .00181 .00193 .00039 .00006  
15.000 10.000 -.08837 -.01039 .00286 .00153 .00055 .00022  
GRADIENT -.04577 -.00146 -.00488 -.00002 -.00007 -.00004

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
30.000 8.000 -.03913 -.00447 .00161 .00150 .00024 .00020  
30.000 10.000 -.00512 -.00058 .00364 .00170 .00030 .00005  
GRADIENT -.04833 .00005 -.00334 .00017 -.00003 .00008

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
45.000 8.000 -.02768 -.00311 .00276 .00082 .00008 .00037  
45.000 10.000 -.04800 -.00420 .00336 .00153 .00025 .00026  
GRADIENT -.04582 -.00141 -.00493 .00028 .00000 .00006



ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA) (TNHX28) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-.01967	-.00272	.00351	.00081	.00013	-.00052
50.000	10.000	-.03884	-.00374	.00374	.00152	.00018	-.00009
	GRADIENT	-.04517	-.00179	-.00519	.00032	.00002	-.00009

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA) (TNHX29) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	10.000	.06068	-.01152	.01200	.00231	.00094	.00043
3.500	12.000	-.11040	-.02446	.01766	.00368	.00066	-.00044
	GRADIENT	-.03891	-.00547	-.00748	-.00023	-.00011	-.00038

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	10.000	-.05537	-.00889	.00902	.00218	.00073	.00057
7.500	12.000	-.10244	-.02287	.01457	.00323	.00031	-.00022
	GRADIENT	-.04155	-.00392	-.00648	-.00015	-.00009	-.00025

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	10.000	-.05129	-.00718	.00591	.00211	.00062	.00064
10.000	12.000	-.09616	-.02165	.01232	.00296	.00010	-.00005
	GRADIENT	-.04310	-.00302	-.00589	-.00010	-.00009	-.00017

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	10.000	-.04775	-.00645	.00494	.00172	.00034	.00050
15.000	12.000	-.09121	-.02068	.01025	.00246	.00024	-.00002
	GRADIENT	-.04577	-.00146	-.00488	-.00002	-.00007	-.00004

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = 10.000  
 DY = .000 MACH = .600

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(TNHX29) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 30.000 ALPHA 10.000 DCL -.03396 DCD -.00411 DCLM .00412 DCYN .00012  
 30.000 12.000 -.06420 -.01407 .00844 .00286 -.0027  
 GRADIENT -.04833 .00005 .00017 -.00003

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 45.000 ALPHA 10.000 DCL -.02266 DCD -.00230 DCLM .00409 DCYN .00012  
 45.000 12.000 -.04496 -.00349 .00839 .00210 .00023  
 GRADIENT -.04582 .00014 .00028 .00000

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 50.000 ALPHA 10.000 DCL -.01786 DCD -.00196 DCLM .00394 DCYN .00026  
 50.000 12.000 -.04044 -.00843 .00861 .00181 .00058  
 GRADIENT -.04517 .000173 .00032 .00002

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(TNHX30) ( 17 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ 3.500 ALPHA 10.000 DCL -.06107 DCD -.01003 DCLM .00649 DCYN .00056  
 3.500 12.000 -.11544 -.02468 .00954 .00230 .00079  
 GRADIENT -.03691 .00547 .00748 .00023

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.500 ALPHA 10.000 DCL -.05525 DCD -.00806 DCLM .00385 DCYN .00098  
 7.500 12.000 -.10753 -.02347 .00811 .00218 .00053  
 GRADIENT -.04155 .00332 .00648 .00015

DCBL .00052  
 .00038

DCBL .00055  
 .00011  
 .00025

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 0/0 PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
10.000	10.000	-.04990	-.00662	.00222	.00197	.00048
10.000	12.000	-.10169	-.02254	.00709	.00209	-.00020
	GRADIENT	-.04310	-.00302	-.00589	-.00010	-.00017

RUN NO. 0/0 PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
15.000	10.000	-.05118	-.00659	.00070	.00155	.00061
15.000	12.000	-.03612	-.02157	.00618	.00207	-.00033
	GRADIENT	-.04577	-.00146	-.00488	-.00002	-.00004

RUN NO. 0/0 PN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
30.000	10.000	-.03860	-.00392	.00161	.00127	.00030
30.000	12.000	-.05750	-.01511	.00606	.00241	.00022
	GRADIENT	-.04833	.00011	-.00394	.00017	.00008

RUN NO. 0/0 PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
45.000	10.000	-.02111	-.00246	.00289	.00105	.00014
45.000	12.000	-.05526	-.01212	.00722	.00170	.00036
	GRADIENT	-.04582	-.00141	-.00493	.00028	-.00006

RUN NO. 0/0 PN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCBL
50.000	10.000	-.01937	-.00211	.00321	.00135	.00010
50.000	12.000	-.04036	-.00947	.00745	.00168	.00049
	GRADIENT	-.04517	-.00179	-.00519	.00032	-.00009

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TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(TNHX31) ( 17 OCT 76 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	8.000	-.03396	-.00506	-.00109	.00165	.00071	.00058
3.500	10.000	-.09749	-.01129	-.00024	.00153	.00093	.00053
	GRADIENT	-.03891	-.00547	-.00748	-.00023	-.00011	-.00038

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	8.000	-.04975	-.00550	-.00109	.00162	.00060	.00043
7.500	10.000	-.09256	-.01055	-.00092	.00148	.00085	.00044
	GRADIENT	-.04155	-.00392	-.00648	-.00015	-.00009	-.00025

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	8.000	-.04600	-.00538	-.00197	.00160	.00052	.00026
10.000	10.000	-.08892	-.01004	-.00143	.00143	.00079	.00041
	GRADIENT	-.04310	-.00302	-.00589	-.00010	-.00009	-.00017

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	8.000	-.04572	-.00493	-.00250	.00151	.00054	.00033
15.000	10.000	-.08462	-.00946	-.00169	.00150	.00078	.00024
	GRADIENT	-.04577	-.00146	-.00488	-.00032	-.00007	-.00004

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	8.000	-.03508	-.00335	-.00038	.00148	.00029	.00013
30.000	10.000	-.06537	-.00663	-.00076	.00058	.00024	.00044
	GRADIENT	-.04833	.00005	-.00394	.00017	-.00003	.00008

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	8.000	-.02315	-.00271	.00164	.00354	.00019	.00019
45.000	10.000	-.04623	-.00434	.00235	.00125	.00026	.00005
	GRADIENT	-.04582	-.00141	-.00493	.00028	.00000	-.00006

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-.01931	-.00248	.00220	.00017	.00016	-.00032
50.000	10.000	-.04289	-.00386	.00255	.00092	.00017	.00005
	GRADIENT	-.04517	-.00179	-.00519	.00032	.00002	-.00009

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	8.000	-.05438	-.00882	.01703	.00356	.00019	.00015
3.500	10.000	-.10108	-.01458	.01886	.00360	.00043	.00021
	GRADIENT	-.03891	-.00547	-.00748	-.00023	-.00011	-.00038

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	8.000	-.05159	-.00815	.01242	.00310	-.00007	.00003
7.500	10.000	-.09388	-.01351	.01451	.00299	.00025	.00014
	GRADIENT	-.04155	-.00392	-.00648	-.00015	-.00009	-.00025

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	8.000	-.05308	-.00780	.01014	.00303	-.00005	-.00001
10.000	10.000	-.09065	-.01294	.01225	.00275	.00016	.00004
	GRADIENT	-.04310	-.00302	-.00589	-.00010	-.05909	-.00017

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DATE 23 MAR 76

TABULATED SOURCE DATA - CA238

ARC 14-120(CA238) 747/1 ATI 0351 (ORBITER DATA)

(TNHX34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCD DCLM DCY DCBL  
 30.000 8.000 -.03742 -.00490 .00641 .00302 -.00046  
 30.000 10.000 -.06345 -.00777 .00847 .00226 -.00008  
 GRADIENT -.04833 .00005 -.07394 .00017 -.00003

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCD DCLM DCY DCBL  
 45.000 8.000 -.02424 -.00359 .00639 .00190 .00072  
 45.000 10.000 -.04352 -.00512 .00754 .00194 .00004  
 GRADIENT -.04582 -.00141 -.00493 .00028 .00000

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCD DCLM DCY DCBL  
 50.000 8.000 -.01907 -.00341 .00662 .00165 .00071  
 50.000 10.000 -.03799 -.00437 .00749 .00228 .00019  
 GRADIENT -.04517 -.00179 -.00519 .00032 .00002

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA)

(TNHY10) ( 17 OCT 75 )

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCD DCLM DCY DCBL  
 3.500 10.000 -.05596 -.01008 .01194 .00158 .00025  
 3.500 12.000 -.09685 -.02327 .01589 .00229 .00042  
 GRADIENT -.04451 -.00679 -.00468 .00014 .00009

RUN NO. 0 / 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCD DCLM DCY DCBL  
 7.500 10.000 -.05299 -.00939 .01037 .00142 .00026  
 7.500 12.000 -.03095 -.02058 .01401 .00196 .00061  
 GRADIENT -.04552 -.00507 -.00425 .00012 .00006

DATE 23 MAR 76

TABLATED SOURCE DATA - CA238

ARC 14-120(CA238) 747/1 ATI 0251 (ORBITER DATA)

(TMY10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	10.000	ALPHA	10.000	DCL	.05042	DCD	-.00875	DCLM	.00924	DCY	.00143	DCYN	-.00020	DCBL	.00109
	10.000		12.000		-.08551		-.01869		.01266		.00189		-.00073		.00061
	10.000	GRADIENT			-.04611		-.00407		-.00400		.00011		.00004		-.00009

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	15.000	ALPHA	10.000	DCL	-.04364	DCD	-.00790	DCLM	.00788	DCY	.00073	DCYN	-.00036	DCBL	.00082
	15.000		12.000		-.08292		-.01698		.01097		.00128		-.00084		.00025
	15.000	GRADIENT			-.04711		-.00234		-.00357		.00009		.00001		-.00006

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	30.000	ALPHA	10.000	DCL	-.03469	DCD	-.00437	DCLM	.00585	DCY	.00089	DCYN	-.00053	DCBL	.00065
	30.000		12.000		-.06209		-.01076		.00812		.00065		-.00097		.00030
	30.000	GRADIENT			-.04785		-.00066		-.00317		.00006		.00002		-.00002

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	45.000	ALPHA	10.000	DCL	-.02027	DCD	-.00196	DCLM	.00471	DCY	.00171	DCYN	-.00049	DCBL	.00061
	45.000		12.000		-.04376		-.00557		.00607		.00160		-.00085		.00011
	45.000	GRADIENT			-.04649		-.00225		-.00359		.00004		.00001		-.00004

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	50.000	ALPHA	10.000	DCL	-.02202	DCD	-.00201	DCLM	.00395	DCY	.00184	DCYN	-.00047	DCBL	.00044
	50.000		12.000		-.03846		-.00414		.00547		.00200		-.00086		.00008
	50.000	GRADIENT			-.04612		-.00265		-.00370		.00004		.00001		-.00005

ORIGINAL PAGE IS OF POOR QUALITY

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(TNHY13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YHRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZHRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	8.000	-.05878	-.00890	.01274	.00123	.00019	.00102
3.500	10.000	-.10819	-.01668	.01614	.00023	.00001	.00118
	GRADIENT	-.04451	-.00679	-.00468	.00014	.00009	-.000014

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	8.000	-.05758	-.00650	.01019	.00035	.00013	.00087
7.500	10.000	-.10112	-.01532	.01325	-.00010	.00000	.00115
	GRADIENT	-.04552	-.00507	-.00425	.00012	.00006	-.00011

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	8.000	-.05623	-.00836	.00962	-.00026	.00003	.00074
10.000	10.000	-.09876	-.01485	.01252	.00000	-.00005	.00100
	GRADIENT	-.04611	-.00407	-.00400	.00011	.00004	-.00009

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	8.000	-.05394	-.00707	.00806	-.00054	-.00002	.00070
15.000	10.000	-.09436	-.01332	.01095	-.00019	-.00011	.00092
	GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	8.000	-.04032	-.00497	.00677	-.00052	-.00010	.00039
30.000	10.000	-.07330	-.00927	.00893	.00076	-.00006	.00068
	GRADIENT	-.04785	-.00066	-.00317	.00006	-.00002	-.00002

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	8.000	-.02973	-.00368	.00599	-.00004	-.00003	.00040
45.000	10.000	-.05703	-.00620	.00732	.00039	-.00019	.00056
	GRADIENT	-.04649	-.00225	-.00359	.00004	.00001	-.00004



ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(TNHY13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-.02705	-.00277	.00541	.00010	.00003	.00057
50.000	10.000	-.05018	-.00484	.00667	.00058	-.00016	.00069
	GRADIENT	-.04612	-.00265	-.00370	.00004	.00001	-.00005

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(TNHY18) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	8.000	-.05330	-.00980	.01241	.00152	-.00116	-.00180
3.500	10.000	-.10297	-.01675	.01670	-.00074	-.00165	-.00430
	GRADIENT	-.04451	-.00679	-.00468	.00014	.00009	-.00014

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	8.000	-.04861	-.00818	.01018	-.00016	-.00102	-.00144
7.500	10.000	-.09333	-.01465	.01303	-.00109	-.00135	-.00307
	GRADIENT	-.04552	-.00507	-.00425	.00012	.00006	-.00011

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	8.000	-.04836	-.00780	.00931	.00028	-.00080	-.00148
10.000	10.000	-.08934	-.01360	.01216	-.00111	-.00136	-.00269
	GRADIENT	-.04611	-.00407	-.00400	.00011	.00004	-.00009

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	8.000	-.04619	-.00709	.00829	-.00011	-.00067	-.00140
15.000	10.000	-.08357	-.01209	.01098	-.00107	-.00105	-.00195
	GRADIENT	-.04711	-.00234	-.00357	.00009	.00001	-.00006

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B

PAGE 2

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(TNHY19) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 30.000 8.000 -.03742 -.00470 -.00264 -.00024 -.00034  
 30.000 10.000 -.06673 -.00781 -.00456 -.00044 -.00017  
 GRADIENT -.04785 -.00066 -.00317 .00004 .00004 .00001

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 45.000 8.000 -.02352 -.00239 -.00239 -.00039 -.00037  
 45.000 10.000 -.04797 -.00456 -.00456 -.00051 -.00055  
 GRADIENT -.04649 -.00225 -.00359 .00004 .00004

RUN NO. 0/ 0 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 50.000 8.000 -.02311 -.00239 -.00239 -.00039 -.00015  
 50.000 10.000 -.04420 -.00387 -.00603 -.00052 -.00042  
 GRADIENT -.04612 -.00265 -.00370 .00004 .00001

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 IORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 3.500 10.000 -.05218 -.01392 -.01293 -.00060 -.00173  
 3.500 12.000 -.09010 -.02199 -.01747 -.00223 -.00141  
 GRADIENT -.04451 -.00679 -.00468 .00014 .00009

RUN NO. 0/ 0 RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ ALPHA DCL DCLM DCD DCY DCYN DCBL  
 7.500 10.000 -.04684 -.01090 -.01136 -.00063 -.00176  
 7.500 12.000 -.08693 -.02074 -.01524 -.00161 -.00431  
 GRADIENT -.04552 -.00507 -.00425 .00012 .00006

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(TNHY19) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1.09.0000 IN. XO  
 LREF = 474.8100 IN.      YMRP = .0000 IN. YO  
 BREF = 936.6800 IN.      ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000      STAB = 5.000  
 RUDDER = .000      ELEVON = 5.000  
 IORB = 8.000      DX = .000  
 DY = 10.000      MACH = .600

RUN NO.    0/ 0      RN/L = 3.33      GRADIENT INTERVAL = -5.00/ 5.00  
 DZ      ALPHA      DCL      DCLM      DCY      DCYN      DCBL  
 10.000    10.000    -.04493    .01028    .00682    -.00116    -.00147  
 10.000    12.000    -.08455    .01367    -.00110    -.00135    -.00343  
           GRADIENT    -.00407    -.00400    .00011    .00004    -.00009

RUN NO.    0/ 0      RN/L = 3.35      GRADIENT INTERVAL = -5.00/ 5.00  
 DZ      ALPHA      DCL      DCLM      DCY      DCYN      DCBL  
 15.000    10.000    -.04849    .00849    -.00005    -.00084    -.00070  
 15.000    12.000    -.08195    .01199    -.00070    -.00118    -.00233  
           GRADIENT    -.04711    -.00234    -.00357    .00009    .00001    -.00006

RUN NO.    0/ 0      RN/L = 3.35      GRADIENT INTERVAL = -5.00/ 5.00  
 DZ      ALPHA      DCL      DCLM      DCY      DCYN      DCBL  
 30.000    10.000    -.03771    .00649    .00039    -.00060    -.00011  
 30.000    12.000    -.06056    .00891    -.00095    -.00110    -.00100  
           GRADIENT    -.04785    -.00066    -.00317    .00006    -.00002    -.00002

RUN NO.    0/ 0      RN/L = 3.35      GRADIENT INTERVAL = -5.00/ 5.00  
 DZ      ALPHA      DCL      DCLM      DCY      DCYN      DCBL  
 45.000    10.000    -.02317    .00543    .00115    -.00058    -.00014  
 45.000    12.000    -.04111    .00709    .00182    -.00074    -.00079  
           GRADIENT    -.04649    -.00225    -.00359    .00004    .00001    -.00004

RUN NO.    0/ 0      RN/L = 3.35      GRADIENT INTERVAL = -5.00/ 5.00  
 DZ      ALPHA      DCL      DCLM      DCY      DCYN      DCBL  
 50.000    10.000    -.01980    .00512    .00125    -.00050    -.00015  
 50.000    12.000    -.03663    .00641    .00138    -.00093    -.00067  
           GRADIENT    -.04612    -.00265    -.00370    .00004    .00001    -.00005

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ARC 14-120(CA23B) 747/1 AT1 035! (ORBITER DATA)

(TNHY27) ( 17 OCT 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. YO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/ 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ 3.500 ALPHA 10.000 DCL -.04445 DCD -.00702 D'LM .01474 DCY .00343 DCYN .00125  
 12.000 -.09119 -.02099 .02246 .00236 -.00009  
 GRADIENT -.03891 -.00547 -.00748 -.00023 -.00011  
 DCBL .00027  
 .00053  
 -.00038

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.500 ALPHA 10.000 DCL -.04596 DCD -.00708 D'LM .01230 DCY .00239 DCYN .00085  
 12.000 -.08850 -.02040 .01871 .00283 -.00009  
 GRADIENT -.04155 -.00392 -.00648 -.00015 -.00009  
 DCBL .00047  
 .00037  
 -.00025

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 10.000 ALPHA 10.000 DCL -.04651 DCD -.00691 D'LM .01029 DCY .00132 DCYN .00062  
 12.000 -.08733 -.02008 .01571 .00295 .00003  
 GRADIENT -.04310 -.00302 -.00589 -.00010 -.00009  
 DCBL .00073  
 .00025  
 -.00017

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 15.000 ALPHA 10.000 DCL -.04708 DCD -.00745 D'LM .00928 DCY .00228 DCYN .00007  
 15.000 -.08157 -.01882 .01445 .00446 -.00041  
 GRADIENT -.04577 -.00146 -.00468 -.00002 -.00007  
 DCBL .00027  
 .00018  
 -.00004

RUN NO. 0/ 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ 30.000 ALPHA 10.000 DCL -.03604 DCD -.00454 D'LM .00604 DCY .00199 DCYN .00006  
 30.000 -.06040 -.01361 .01151 .00363 -.00026  
 GRADIENT -.04833 .00005 -.00394 .00017 -.00003  
 DCBL .00024  
 .00012  
 .00008

RUN NO. 0/ 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 45.000 ALPHA 10.000 DCL -.02089 DCD -.00261 D'LM .00591 DCY .0015 DCYN .00007  
 45.000 -.04165 -.00972 .01051 .00256 .00021  
 GRADIENT -.04582 -.00141 -.00493 .00028 .00000  
 DCBL .00018  
 .00037  
 -.00006

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(TNHY27) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 50.000 ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 10.000 .01952 -.00237 .00495 .00232 .00007 -.00014  
 50.000 12.000 -.03641 -.00843 .01026 .00033 .00053  
 GRADIENT -.04517 -.00179 -.00519 .00032 .00002 -.00009

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ 3.500 ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 7.500 8.000 -.04669 -.00883 .01349 .00108 -.00148  
 3.500 10.000 -.03279 -.01462 .01577 .00131 -.00368  
 GRADIENT -.03891 -.00547 -.00748 -.00023 -.00011 -.00038

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

(TNHY32) ( 17 OCT 75 )

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 7.500 ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 10.000 8.000 -.04733 -.00735 .00923 .00068 -.00153  
 7.500 10.000 -.08795 -.01267 .01019 -.00027 -.00275  
 GRADIENT -.04310 -.00302 -.00589 -.00010 -.00009 -.00025

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 10.000 ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 15.000 8.000 -.04682 -.00685 .00999 .00096 -.00129  
 10.000 10.000 -.09155 -.01152 .00260 -.00027 -.00250  
 GRADIENT -.04477 -.00146 -.00488 -.00010 -.00007 -.00017

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ 15.000 ALPHA0 DCL DCD DCLM DCY DCYN DCBL  
 15.000 8.000 -.04682 -.00685 .00999 .00096 -.00129  
 10.000 10.000 -.09155 -.01152 .00260 -.00027 -.00250  
 GRADIENT -.04477 -.00146 -.00488 -.00010 -.00007 -.00017

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (TNHY32) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	8.000	-.03575	-.00432	.00536	.00101	-.00017	-.00089
30.000	10.000	-.06274	-.00707	.00797	.00038	-.00051	-.00122
	GRADIENT	-.04833	.00005	-.00394	.00017	-.00003	-.00008

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	8.000	-.02312	-.00307	.00536	.00019	-.00026	-.00069
45.000	10.000	-.04632	-.00464	.00561	.00028	-.00037	-.00067
	GRADIENT	-.04582	-.00141	-.00493	.00028	.00000	-.00006

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-.01875	-.00254	.00560	.00035	-.00020	-.00087
50.000	10.000	-.03839	-.00368	.00559	.00044	-.00028	-.00056
	GRADIENT	-.04517	-.00179	-.00519	.00032	.00002	-.00009

REFERENCE DATA

SREF = 2699.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	10.000	-.05096	-.01369	.01431	-.00056	-.00093	-.00249
3.500	12.000	-.09671	-.02532	.02102	-.00100	-.00146	-.00560
	GRADIENT	-.03831	-.00547	-.00748	-.00023	-.00011	-.00038

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	10.000	-.04894	-.01028	.01223	.00011	-.00077	-.00190
7.500	12.000	-.09240	-.02358	.01888	-.00044	-.00140	-.00452
	GRADIENT	-.04155	-.00392	-.00648	-.00015	-.00009	-.00025

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = .000  
 DY = 10.000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA) (TNHY33) ( 17 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 8.000 DX = .000  
 DY = 10.000 MACH = .600

REFERENCE DATA

SPEF = 2630.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LPFF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BFEF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	10.000	-.04674	-.00793	.01050	.00039	-.00063	-.00154
10.000	12.000	-.08918	-.02231	.01740	-.00006	-.00133	-.00368
	GRADIENT	-.04310	-.00302	-.00589	-.00010	-.00009	-.00017

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	10.000	-.04757	-.00742	.00908	.00084	-.00054	-.00134
15.000	12.000	-.08444	-.02067	.01559	.00049	-.00132	-.00302
	GRADIENT	-.04577	-.00146	-.00488	-.00002	-.00007	-.00004

RUN NO. 0 / 0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	10.000	-.03432	-.00457	.00787	.00121	-.00023	-.00052
30.000	12.000	-.05625	-.01370	.01324	.00116	-.00104	-.00093
	GRADIENT	-.04833	.00005	-.00294	.00017	-.00003	.00008

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	10.000	-.01984	-.00240	.00694	.00109	-.00042	-.00034
45.000	12.000	-.04163	-.01026	.01217	.00134	-.00027	-.00049
	GRADIENT	-.04582	-.00141	-.00493	.00028	.00000	-.00006

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	10.000	-.01861	-.00253	.00651	.00135	-.00024	-.00030
50.000	12.000	-.03056	-.00975	.01158	.00137	-.00006	-.00026
	GRADIENT	-.04517	-.00179	-.00519	.00032	.00002	-.00009

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 OF POOR QUALITY

ARC 14-120(CA23B) 747/1 ATI 03SI (ORBITER DATA)

(TNHY34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LPEF = 474.8100 IN. YMPP = .0000 IN. Y0  
 BRPF = 935.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RUN NO. 0/0 RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
3.500	8.000	-.05437	-.00879	.01688	-.00363	.00019	.00015
3.500	10.000	-.10107	-.01458	.01986	.00350	.00043	.00020
	GRADIENT	-.03891	-.00547	-.00748	-.00023	-.00011	-.00038

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
7.500	8.000	-.05156	-.00814	.01236	.00309	-.00007	.00002
7.500	10.000	-.09385	-.01351	.01450	-.00288	.00024	.00013
	GRADIENT	-.04155	-.00392	-.00648	-.00015	-.00009	-.00025

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
10.000	8.000	-.05304	-.00779	.01009	.00301	-.00004	.00002
10.000	10.000	-.09063	-.01294	.01297	.00273	.00015	.00002
	GRADIENT	-.04310	-.00302	-.00589	-.00010	-.00009	-.00017

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
15.000	8.000	-.05072	-.00725	.00700	.00301	-.00015	.00018
15.000	10.000	-.09597	-.01175	.01025	.00271	.00015	.00009
	GRADIENT	-.04577	-.00146	-.00488	-.00002	-.00007	-.00004

RUN NO. 0/0 RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
30.000	8.000	-.03742	-.00489	.00639	.00301	-.00000	.00047
30.000	10.000	-.06343	-.00778	.00850	.00225	-.00025	.00009
	GRADIENT	-.04833	.00005	-.00394	.00017	-.00003	.00008

RUN NO. 0/0 RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
45.000	8.000	-.02417	-.00360	.00643	.00190	-.00027	.00073
45.000	10.000	-.04343	-.00513	.00762	.00194	-.00026	.00003
	GRADIENT	-.04582	-.00141	-.00493	.00028	.00000	-.00006



TABULATED SOURCE DATA - CA23B

DATE 23 MAR 76

(TNHY34) ( 17 OCT 75 )

ARC 14-1201CA23B) 747/1 AT1 03S1 (ORBITER DATA)

REFERENCE DATA

SPEF = 2630.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RUN NO. 0 / 0 RN/L = 3.30 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHA	DCL	DCD	DCLM	DCY	DCYN	DCBL
50.000	8.000	-.01905	-.00342	.00567	.00167	-.00019	-.00071
50.000	10.000	-.03799	-.00439	.00756	.00229	-.00013	-.00019
	GRADIENT	-.04517	-.00179	-.00519	.00032	.00002	-.00009

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

(4NH09B) ( 17 OCT 75 )

ARC 14-1201CA23B) 747/1 AT1 02S1 (ORBITER DATA)

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
3.500	.000	-.02984	-.00705	.01187	.00185	.00033	.00103	6.00000
2.000	.000	-.05931	-.01009	.01158	.00217	.00025	.00085	8.00000
4.000	.000	-.11750	-.01813	.01522	.00134	.00003	.00111	10.00000
GRADIENT		-.02191	-.00277	.00084	-.00013	-.00007	.00002	1.00000

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
7.500	.000	-.02505	-.00582	.00835	.00111	.00019	.00092	6.00000
2.000	.000	-.05952	-.00930	.00911	.00123	.00023	.00077	8.00000
4.000	.000	-.10846	-.01636	.01275	.00098	.00004	.00112	10.00000
GRADIENT		-.02095	-.00264	.00100	-.00003	-.00004	.00005	1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00 / 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
10.000	.000	-.02359	-.00527	.00736	.00035	.00001	.00069	6.00000
2.000	.000	-.05125	-.00960	.00667	-.00097	-.00018	.00041	8.00000
4.000	.000	-.10749	-.01557	.01126	.00043	-.00004	.00090	10.00000
GRADIENT		-.02095	-.00258	.00100	.00002	-.00001	.00005	1.00000

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(4NH008) ( 17 OCT 75 )

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.02434	-.00437	.00582	.00045	-.00003	.00057	6.00000
2.000	-.06138	-.00776	.00704	.00022	.00000	.00042	8.00000
4.000	-.10059	-.01381	.00934	.00083	-.00003	.00091	10.00000
GRADIENT	-.01891	-.00236	.00103	.00010	.00000	.00009	1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.02255	-.00256	.00391	.00006	-.00010	.00034	6.00000
2.000	-.04687	-.00511	.00544	-.00012	-.00008	.00023	8.00000
4.000	-.08042	-.00954	.00740	.00086	-.00018	.00055	10.00000
GRADIENT	-.01447	-.00171	.00087	.00023	-.00002	.00005	1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 45.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.02209	-.00154	.00277	-.00014	-.00014	.00033	6.00000
2.000	-.03717	-.00349	.00418	.00016	-.00012	.00022	8.00000
4.000	-.06073	-.00583	.00573	.00091	-.00024	.00029	10.00000
GRADIENT	-.00956	-.00107	.00074	.00026	-.00003	-.00001	1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 50.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.01841	-.00133	.00271	-.00025	-.00019	.00024	6.00000
2.000	-.03392	-.00292	.00398	.00048	-.00003	.00036	8.00000
4.000	-.05722	-.00522	.00519	.00095	-.00024	.00041	10.00000
GRADIENT	-.00970	-.00097	.00062	.00030	-.00001	.00004	1.00000

TABLATED SOURCE DATA - CA23B

DATE 23 MAR 76

(MNH009) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUCDER = .000 ELEVON = 5.000  
 ICRB = 8.000 DX = .000  
 DY = .000 MACH = .600

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8100 IN.  
 BREF = 936.5800 IN.  
 SCALE = .0125

XMRP = 1109.0000 IN. X0  
 YMRP = .0000 IN. Y0  
 ZMRP = 375.0000 IN. Z0

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC = .000  
 .000  
 2.000  
 4.000  
 GRADIENT = .00508

DCL = -.01518  
 DCLM = .00900  
 DCO = -.00528  
 DCD = -.05613  
 DCM = -.10957  
 DCLM = -.02360

DCY = .00291  
 DCYN = .00025  
 DCY = .00207  
 DCYN = -.00006  
 DCY = .06220  
 DCYN = -.00014

DCBL = .00104  
 DCBL = .00173  
 DCBL = .00061  
 DCBL = -.00011

ALPHA0 = 8.00000  
 ALPHA0 = 10.00000  
 ALPHA0 = 12.00000  
 ALPHA0 = 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC = .000  
 .000  
 2.000  
 4.000  
 GRADIENT = .00248

DCL = -.01496  
 DCLM = .00636  
 DCO = -.00366  
 DCD = -.05133  
 DCM = -.10487  
 DCLM = -.02248

DCY = .00190  
 DCYN = .00003  
 DCY = .00205  
 DCYN = -.00003  
 DCY = .00226  
 DCYN = -.00012

DCBL = .00086  
 DCBL = .00141  
 DCBL = .00057  
 DCBL = -.00007

ALPHA0 = 8.00000  
 ALPHA0 = 10.00000  
 ALPHA0 = 12.00000  
 ALPHA0 = 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC = .000  
 .000  
 2.000  
 4.000  
 GRADIENT = .00186

DCL = -.02359  
 DCLM = .00685  
 DCO = -.00520  
 DCD = -.05623  
 DCM = -.10263  
 DCLM = -.01268

DCY = .00123  
 DCYN = .00003  
 DCY = .00243  
 DCYN = -.00048  
 DCY = .00245  
 DCYN = -.00013

DCBL = .00056  
 DCBL = .00119  
 DCBL = .00056  
 DCBL = -.00000

ALPHA0 = 8.00000  
 ALPHA0 = 10.00000  
 ALPHA0 = 12.00000  
 ALPHA0 = 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC = .000  
 .000  
 2.000  
 4.000  
 GRADIENT = .00149

DCL = -.02637  
 DCLM = .00764  
 DCO = -.00453  
 DCD = -.06382  
 DCM = -.10299  
 DCLM = -.00145

DCY = .00033  
 DCYN = .00023  
 DCY = .00072  
 DCYN = -.00023  
 DCY = .00194  
 DCYN = -.00049

DCBL = .00051  
 DCBL = .00091  
 DCBL = .00045  
 DCBL = -.00001

ALPHA0 = 8.00000  
 ALPHA0 = 10.00000  
 ALPHA0 = 12.00000  
 ALPHA0 = 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC = .000  
 .000  
 2.000  
 4.000  
 GRADIENT = .00111

DCL = -.01949  
 DCLM = .00492  
 DCO = -.00263  
 DCD = -.05095  
 DCM = -.10303  
 DCLM = -.00242

DCY = .00029  
 DCYN = .00025  
 DCY = .00160  
 DCYN = -.00035  
 DCY = .00452  
 DCYN = -.00016

DCBL = .00017  
 DCBL = .00062  
 DCBL = .00047  
 DCBL = .00007

ALPHA0 = 8.00000  
 ALPHA0 = 10.00000  
 ALPHA0 = 12.00000  
 ALPHA0 = 1.00000

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(4NH009) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCY  
 DCLM  
 DCO  
 DCL  
 DCLM  
 DCO  
 DCL

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCYN  
 DCY  
 DCY  
 DCY  
 DCY  
 DCY  
 DCY

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

DCBL  
 ALPHAO  
 8.00000  
 10.00000  
 12.00000  
 1.00000

DCBL  
 ALPHAO  
 8.00000  
 10.00000  
 12.00000  
 1.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCY  
 DCLM  
 DCO  
 DCL  
 DCLM  
 DCO  
 DCL

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCYN  
 DCY  
 DCY  
 DCY  
 DCY  
 DCY  
 DCY

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCY  
 DCLM  
 DCO  
 DCL  
 DCLM  
 DCO  
 DCL

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(4NH010) ( 17 OCT 75 )

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

DCBL  
 ALPHAO  
 8.00000  
 10.00000  
 12.00000  
 1.00000

DCBL  
 ALPHAO  
 8.00000  
 10.00000  
 12.00000  
 1.00000

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BPEF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.01971 MACH = .600

PARAMETRIC DATA

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	ALPHAC	DCO	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.01196	-.00454	.00900	.00144	.00005	.00046	8.00000
2.000	-.05278	-.00933	.01033	.00143	-.00027	.00089	10.00000
4.000	-.03080	-.02051	.01399	.00193	-.00062	.00047	12.00000
GRADIENT	-.01971	-.00399	.00125	.00012	-.00017	.00000	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	ALPHAC	DCO	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.01473	-.00397	.00734	.00070	.00000	.00057	8.00000
2.000	-.05048	-.00869	.00916	.00149	-.00016	.00119	10.00000
4.000	-.08654	-.01863	.01263	.00198	-.00071	.00073	12.00000
GRADIENT	-.01795	-.00366	.00132	.00032	-.00018	.00004	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	ALPHAC	DCO	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.01291	-.00340	.00532	.00005	-.00018	.00036	8.00000
2.000	-.04914	-.00782	.00780	.00078	-.00035	.00087	10.00000
4.000	-.08281	-.01688	.01090	.00138	-.00082	.00036	12.00000
GRADIENT	-.01747	-.00337	.00115	.00036	-.00015	-.00000	1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	ALPHAC	DCO	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.00777	-.00166	.00455	-.00062	-.00029	.00016	8.00000
2.000	-.03449	-.00433	.00580	.00092	-.00052	.00069	10.00000
4.000	-.06201	-.01068	.00805	.00071	-.00037	.00036	12.00000
GRADIENT	-.01356	-.00226	.00088	.00034	-.00017	.00005	1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	ALPHAC	DCO	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.00190	-.00083	.00402	.00008	-.00023	.00009	8.00000
2.000	-.02009	-.00191	.00467	.00174	-.00048	.00064	10.00000
4.000	-.04373	-.00554	.00601	.00159	-.00086	-.00007	12.00000
GRADIENT	-.01047	-.00118	.00050	.00038	-.00016	-.00004	1.00000

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DATE 23 MAR 76

TABLATED SOURCE DATA - CA23B

E 303

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(4NH010) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL .00241 DCO .00051 DCY .00025 DCYN .00017 DCBL .00015 ALPHAO 8.00000  
 .02204 .00198 .00188 .00047 .00046 10.00000  
 .03844 .00409 .00204 .00086 .00005 12.00000  
 .00901 .00089 .00047 .00017 .00005 1.00000

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(4NH011) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL .03110 DCO .00668 DCY .00115 DCYN .00011 DCBL .00094 ALPHAO 4.00000  
 .07298 .01038 .01210 .00021 .00104 6.00000  
 .11267 .01480 .01181 .00097 .00094 8.00000  
 .02039 .00203 .00019 .00005 .00001 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL .02509 DCO .00641 DCY .00109 DCYN .00018 DCBL .00088 ALPHAO 4.00000  
 .06533 .00940 .00094 .00012 .00077 6.00000  
 .10474 .01352 .00934 .00027 .00073 8.00000  
 .01991 .00178 .00015 .00009 .00002 1.00000

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.01935 -.00171 -.00003 -.001017 -.00002 -.00002

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DCZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
10.000	.000	-.02427	-.00605	.00855	.00158	.00023	.00071	4.00000
2.000	.000	-.06189	-.00874	.00846	.00101	.00015	.00073	6.00000
4.000	.000	-.10168	-.01283	.00841	.00089	.00015	.00063	8.00000
GRADIENT		-.01935	-.00171	-.00003	-.001017	-.00002	-.00002	1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DCZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
15.000	.000	-.02206	-.00498	.00687	.00167	.00027	.00053	4.00000
2.000	.000	-.05725	-.00765	.00711	.00116	.00025	.00064	6.00000
4.000	.000	-.09394	-.01142	.00775	.00075	.00021	.00059	8.00000
GRADIENT		-.01795	-.00161	.00022	-.00023	-.00001	.00002	1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DCZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
30.000	.000	-.01858	-.00359	.00465	.00062	.00006	.00021	4.00000
2.000	.000	-.04517	-.00479	.00537	-.00019	-.00009	.00031	6.00000
4.000	.000	-.07081	-.00755	.00545	.00044	.00007	.00028	8.00000
GRADIENT		-.01306	-.00099	.00045	-.00004	.00000	.00002	1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DCZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
45.000	.000	-.01353	-.00214	.00336	.00017	-.00003	.00017	4.00000
2.000	.000	-.03186	-.00325	.00450	.00016	-.00004	.00027	6.00000
4.000	.000	-.04693	-.00481	.00565	.00100	.00008	.00025	8.00000
GRADIENT		-.00835	-.00067	.00057	.00021	.00003	.00002	1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DCZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
50.000	.000	-.01203	-.00158	.00294	.00007	-.00005	.00018	4.00000
2.000	.000	-.02703	-.00294	.00427	.00042	.00001	.00028	6.00000
4.000	.000	-.03915	-.00399	.00544	.00123	.00011	.00029	8.00000
GRADIENT		-.00678	-.00060	.00063	.00029	.00004	.00003	1.00000

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = .000 DX = .000  
 DY = .000 MACH = .600

TABLATED SOURCE DATA - CA23B

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(4NH013) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = 1.600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	.000	DCL	-.01616	DCD	-.00553	DCLM	.01230	DCY	.00016	DCYN	.00010	DCBL	.00121	ALPHAQ	6.00000
	2.000		-.05960		-.00916		.01296		.00115		.00025		.00117		8.00000
	4.000		-.10887		-.01689		.01624		.00021		.00010		.00147		10.00000
GRADIENT			-.02318		-.00284		.00099		.00001		-.00000		.00007		1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC	.000	DCL	-.01810	DCD	-.00528	DCLM	.00929	DCY	.00014	DCYN	.00015	DCBL	.00112	ALPHAQ	6.00000
	2.000		-.05844		-.00872		.01031		.00031		.00020		.00100		8.00000
	4.000		-.10192		-.01562		.01339		-.00013		.00008		.00136		10.00000
GRADIENT			-.02095		-.00259		.00103		-.00007		-.00002		.00006		1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	.000	DCL	-.01727	DCD	-.00502	DCLM	.00255	DCY	.00039	DCYN	.00023	DCBL	.00093	ALPHAQ	6.00000
	2.000		-.05713		-.00858		.00974		-.00037		.00008		.00087		8.00000
	4.000		-.09976		-.01519		.01266		-.00001		.00004		.00121		10.00000
GRADIENT			-.02062		-.00254		.00102		-.00010		-.00005		.00007		1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	.000	DCL	-.01726	DCD	-.00443	DCLM	.00739	DCY	.00026	DCYN	.00001	DCBL	.00079	ALPHAQ	6.00000
	2.000		-.05484		-.00726		.00816		-.00062		.00001		.00081		8.00000
	4.000		-.09540		-.01362		.01104		-.00020		.00005		.00107		10.00000
GRADIENT			-.01954		-.00230		.00092		.00001		-.00001		.00007		1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	.000	DCL	-.01261	DCD	-.00297	DCLM	.00574	DCY	.00021	DCYN	.00010	DCBL	.00029	ALPHAQ	6.00000
	2.000		-.04090		-.00516		.00691		-.00058		.00008		.00045		8.00000
	4.000		-.07405		-.00959		.00907		-.00081		-.00002		.00076		10.00000
GRADIENT			-.01536		-.00165		.00083		.00026		.00002		.00012		1.00000



ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

DZ = 45.000	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
ALPHAC	.01131	-.00214	.00511	-.00064	-.00008	.00052	6.00000
.000	-.03079	-.00403	.00619	-.00016	-.00001	.00044	8.00000
2.000	-.03032	-.00566	.00748	.00033	-.00016	.00063	10.00000
4.000	-.01175	-.00113	.00059	.00024	-.00002	.00003	1.00000
GRADIENT							

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

DZ = 50.000	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
ALPHAC	.01202	-.00148	.00444	-.00048	-.00005	.00052	6.00000
.000	-.02761	-.00294	.00554	.00001	-.00004	.00061	8.00000
2.000	-.05121	-.00522	.00681	.00053	-.00013	.00076	10.00000
4.000	-.00980	-.00094	.00059	.00025	-.00002	.00006	1.00000
GRADIENT							

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 4.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

DZ = 3.500	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
ALPHAC	.00990	-.00368	.01292	-.00042	-.00011	.00055	4.00000
.000	-.05960	-.00767	.01215	-.00032	-.00003	.00065	6.00000
2.000	-.02517	-.01167	.01000	.00014	.00019	.00052	8.00000
4.000	-.02132	-.00200	-.00073	.00014	.00008	-.00001	1.00000
GRADIENT							

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ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(4NH020) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 50.FT. YMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 ICRB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.00074  
 -.05794  
 -.09170  
 -.02274

DCD  
 -.00308  
 -.00693  
 -.01100  
 -.00198

DCLM  
 .01037  
 .00941  
 .00737  
 -.00060

DCY  
 -.00054  
 -.00017  
 .00248  
 .00326

DCYN  
 -.00009  
 .00007  
 .00020  
 .00007

DCBL  
 .00042  
 .00066  
 .00037  
 -.00001

ALPHA0  
 4.00000  
 6.00000  
 8.00000  
 1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 .00048  
 -.05070  
 -.08758  
 -.02251

DCD  
 -.00258  
 -.00634  
 .00030  
 -.00195

DCLM  
 .00911  
 .00880  
 .00595  
 -.00054

DCY  
 .00042  
 .00043  
 .00061  
 .00005

DCYN  
 .00006  
 .00013  
 .00030  
 .00005

DCBL  
 .00020  
 .00040  
 .00039  
 .00005

ALPHA0  
 4.00000  
 6.00000  
 8.00000  
 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 .00138  
 -.04746  
 -.08125  
 -.02050

DCD  
 -.00216  
 -.00530  
 -.01581  
 -.00166

DCLM  
 .00723  
 .00705  
 .00514  
 -.00077

DCY  
 -.00014  
 -.00026  
 .00013  
 .00001

DCYN  
 -.00007  
 .00006  
 .00012  
 .00005

DCBL  
 .00007  
 .00047  
 .00035  
 .00007

ALPHA0  
 4.00000  
 6.00000  
 8.00000  
 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.00055  
 -.03872  
 -.06489  
 -.01608

DCD  
 -.00057  
 -.00301  
 -.00572  
 -.00129

DCLM  
 .00431  
 .00493  
 .00464  
 .00008

DCY  
 -.00052  
 -.00124  
 .00053  
 .00003

DCYN  
 -.00012  
 .00013  
 .00003  
 .00002

DCBL  
 .00001  
 .00039  
 .00005  
 .00002

ALPHA0  
 4.00000  
 6.00000  
 8.00000  
 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.00219  
 -.03326  
 -.05120  
 -.01240

DCD  
 -.00001  
 -.00190  
 -.00384  
 -.00096

DCLM  
 .00283  
 .00316  
 .00313  
 .00019

DCY  
 .00097  
 .00117  
 .00177  
 .00005

DCYN  
 -.00015  
 .00010  
 .00007  
 .00002

DCBL  
 .00015  
 .00032  
 .00009  
 .00002

ALPHA0  
 4.00000  
 6.00000  
 8.00000  
 1.00000

TABULATED SOURCE DATA - CA23B

DATE 23 MAR 76

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(4NH020) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 50.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .600

DCBL ALPHAO  
 .00023 4.00000  
 .00032 6.00000  
 .00012 8.00000  
 -.00003 1.00000

DCY DCYN  
 -.00126 -.00018  
 -.00117 -.00008  
 -.00089 -.00010  
 .00009 .00002

DCL DCD DCLM  
 -.00255 .00006 .00238  
 -.03194 -.00161 .00289  
 -.04729 -.00326 .00328  
 -.01119 -.00083 .00023

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(4NH021) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 3.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 4.000 DX = .000  
 DY = .000 MACH = .600

DCBL ALPHAO  
 .00054 4.00000  
 .00074 6.00000  
 .00049 8.00000  
 -.00001 1.00000

DCY DCYN  
 .00007 -.00003  
 .00027 .00009  
 .00011 .00011  
 .00001 .00003

DCL DCD DCLM  
 -.01390 .00559 .01421  
 -.05894 -.00915 .01362  
 -.03467 -.01290 .01180  
 -.02219 -.00183 -.00060

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 7.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCBL ALPHAO  
 .00032 4.00000  
 .00072 6.00000  
 .00038 8.00000  
 .00002 1.00000

DCY DCYN  
 .00060 .00008  
 -.00005 .00009  
 -.00010 .00008  
 -.00018 -.00000

APC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(4NH021) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.01598	-.00479	.00965	.00011	-.00003	.00028	4.00000
2.000	-.05370	-.00798	.00994	.00009	.00016	.00064	6.00000
4.000	-.08742	-.01149	.00872	-.00034	.00003	.00034	8.00000
GRADIENT	-.01786	-.00168	-.00023	-.00011	.00001	.00001	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.00925	-.00400	.00827	.00004	-.00009	-.00005	4.00000
2.000	-.04865	-.00678	.00652	-.00066	-.00004	.00048	6.00000
4.000	-.08049	-.00994	.00758	-.00021	.00005	.00034	8.00000
GRADIENT	-.01781	-.00149	-.00017	-.00006	.00004	.00010	1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.00809	-.00221	.00520	-.00077	-.00014	.00018	4.00000
2.000	-.03787	-.00431	.00511	-.00094	-.00008	.00027	6.00000
4.000	-.06281	-.00648	.00579	-.00059	-.00000	.00018	8.00000
GRADIENT	-.01363	-.00107	.00015	.00005	.00003	.00000	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.00693	-.00096	.00373	-.00174	-.00024	.00031	4.00000
2.000	-.02615	-.00260	.00498	-.00164	-.00019	.00030	6.00000
4.000	-.04818	-.00434	.00483	-.00153	-.00002	.00033	8.00000
GRADIENT	-.01031	-.00085	.00027	.00005	.00005	.00000	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.000	-.00600	-.00056	.00337	-.00206	-.00027	.00032	4.00000
2.000	-.02205	-.00208	.00468	-.00198	-.00025	.00032	6.00000
4.000	-.04358	-.00370	.00455	-.00187	-.00002	.00041	8.00000
GRADIENT	-.00940	-.00079	.00029	.00005	.00006	.00002	1.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
3.500	.000	-.00124	-.00607	.01312	-.00096	-.00008	.00032	8.00000
2.000	.000	-.03231	-.00857	.01364	.00001	.00024	.00057	10.00000
4.000	.000	-.08264	-.02199	.02009	-.00036	-.00021	.00096	12.00000
GRADIENT		-.02035	-.00398	.00174	.00015	-.00003	.00016	1.00000

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
7.500	.000	.00080	-.00436	.01098	-.00057	-.00005	.00023	8.00000
2.000	.000	-.03173	-.00729	.01200	.00010	.00016	.00033	10.00000
4.000	.000	-.07618	-.01982	.01798	.00035	-.00027	.00065	12.00000
GRADIENT		-.01924	-.00386	.00175	.00023	-.00005	.00011	1.00000

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
10.000	.000	.00298	-.00312	.00945	-.00007	.00002	.00016	8.00000
2.000	.000	-.03160	-.00634	.01058	.00038	.00013	.00008	10.00000
4.000	.000	-.07148	-.01818	.01637	.00079	-.00036	.00039	12.00000
GRADIENT		-.01861	-.00377	.00173	.00021	-.00010	.00005	1.00000

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
15.000	.000	-.00150	-.00298	.00788	-.00125	-.00019	.00010	8.00000
2.000	.000	-.02896	-.00577	.01001	-.00056	-.00003	.00026	10.00000
4.000	.000	-.05055	-.01675	.01524	.00160	-.00018	.00038	12.00000
GRADIENT		-.01629	-.00344	.00184	.00071	-.00000	.00007	1.00000

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
30.000	.000	.00022	-.00162	.00603	-.00085	-.00013	.00003	8.00000
2.000	.000	-.02218	-.00388	.00769	-.00051	-.00008	-.00017	10.00000
4.000	.000	-.04790	-.01135	.01248	.00058	-.00035	.00024	12.00000
GRADIENT		-.01192	-.00243	.00161	.00035	-.00005	.00005	1.00000

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(4NH022) ( 17 OCT 75 )

REFERENCE DATA

SPREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

DCBL ALPHAO  
 .00004 8.00000  
 .00014 10.00000  
 .00036 12.00000  
 .00008 1.00000

DCY DCYN  
 -.00135 -.00016  
 -.00116 -.00013  
 .00018 -.00033  
 .00038 -.00004

DCLM DCD  
 .00428 -.00090  
 .00503 -.00258  
 .01021 -.00851  
 .00148 -.00190

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCBL ALPHAO  
 .00012 8.00000  
 .00018 10.00000  
 .00030 12.00000  
 .00005 1.00000

DCY DCYN  
 -.00113 -.00005  
 -.00115 -.00012  
 .00044 -.00024  
 .00039 -.00005

DCLM DCD  
 .00380 -.00074  
 .00546 -.00226  
 .00932 -.00823  
 .00138 -.00187

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(4NH023) ( 17 OCT 75 )

REFERENCE DATA

SPREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DCBL ALPHAO  
 .00096 6.00000  
 .00055 8.00000  
 .00038 10.00000  
 -.00015 1.00000

DCY DCYN  
 -.00030 -.00000  
 -.00023 -.00004  
 .00031 .00022  
 .00015 .00006

DCLM DCD  
 .01262 -.00474  
 .01243 -.00770  
 .01548 -.01276  
 .00071 -.00201

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO = .000  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 LORR = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
ALPHAC	.00121	-.00453	.01017	-.00443	-.00001	.00071	6.00000
.000	-.04069	-.00746	.01039	-.00036	.00001	.00045	8.00000
2.000	-.07808	-.01191	.01288	-.00028	.00006	.00025	10.00000
4.000	-.01922	-.00185	.00058	.00004	.00002	-.00012	1.00000
GRADIENT							

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
ALPHAC	.00301	-.00431	.00905	-.00067	-.00004	.00072	6.00000
.000	-.04226	-.00714	.00931	-.00007	.00002	.00026	8.00000
2.000	-.07382	-.01127	.01232	-.00005	.00009	.00020	10.00000
4.000	-.01770	-.00174	.00082	.00015	.00003	-.00013	1.00000
GRADIENT							

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
ALPHAC	.00405	-.00374	.00768	-.00061	.00003	.00074	6.00000
.000	-.03440	-.00616	.00925	-.00071	-.00014	.00017	8.00000
2.000	-.07083	-.01012	.01106	-.00008	.00007	.00019	10.00000
4.000	-.01669	-.00159	.00065	.00013	.00001	-.00014	1.00000
GRADIENT							

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
ALPHAC	.00488	-.00254	.00531	-.00105	-.00005	.00055	6.00000
.000	-.03401	-.00431	.00608	-.00074	-.00003	.00019	8.00000
2.000	-.06205	-.00625	.00895	-.00034	-.00004	.00010	10.00000
4.000	-.01179	-.00093	.00091	.00018	.00000	-.00011	1.00000
GRADIENT							

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
ALPHAC	.00580	-.00155	.00403	-.00164	-.00018	.00045	6.00000
.000	-.02701	-.00282	.00483	-.00151	-.00019	.00026	8.00000
2.000	-.03988	-.00390	.00718	-.00093	-.00015	.00029	10.00000
4.000	-.00952	-.00059	.00079	.00018	.00001	-.00004	1.00000
GRADIENT							

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ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA) (4NH023) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
ALPHAC  
.000  
2.000  
4.000  
GRADIENT

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
IORB = 6.000 DX = .000  
DY = .000 MACH = .600

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
-.00771 -.00113 -.00376 -.00155 -.00015 .00060  
-.02544 -.00237 -.00473 -.00123 -.00012 .00019  
-.03749 -.00310 -.00571 -.00116 -.00011 .00039  
-.00745 -.00049 -.00074 .00010 .00001 -.00005

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA) (4NH024) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
ALPHAC  
.000  
2.000  
4.000  
GRADIENT

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
RUDDER = .000 ELEVON = .000  
IORB = 6.000 DX = .000  
DY = .000 MACH = .600

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
-.00455 -.00580 .01270 -.00023 -.00002 .00066  
-.04391 -.00914 .01304 .00032 .00006 .00044  
-.08318 -.01436 .01580 -.00002 .00010 .00026  
-.01966 -.00214 .00077 .00005 .00003 -.00010

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
ALPHAC  
.000  
2.000  
4.000  
GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
-.00370 -.00549 .01069 -.00015 .00001 .00063  
-.04355 -.00857 .01054 .00042 .00013 .00041  
-.07948 -.01316 .01355 .00043 .00017 .00017  
-.01894 -.00192 .00072 .00015 .00004 -.00012



ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA) (4NH024) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
10.000	.000	-.00409	-.00511	.00970	-.00085	-.00004	.00073	6.00000
2.000	.000	-.04223	-.00824	.01015	.00016	.00008	.00037	8.00000
4.000	.000	-.07895	-.01273	.01267	-.00012	.00008	.00011	10.00000
GRADIENT		-.01872	-.00190	.00074	.00018	.00003	-.00016	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
15.000	.000	-.00741	-.00450	.00793	-.00057	-.00001	.00052	6.00000
2.000	.000	-.04183	-.00756	.00853	-.00066	-.00005	.00019	8.00000
4.000	.000	-.07190	-.01141	.01141	.00024	.00014	-.00008	10.00000
GRADIENT		-.01612	-.00173	.00087	.00020	.00004	-.00015	1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
30.000	.000	-.00391	-.00281	.00563	-.00088	-.00008	.00034	6.00000
2.000	.000	-.03158	-.00492	.00654	-.00092	-.00015	.00000	8.00000
4.000	.000	-.05311	-.00709	.00919	.00018	.00000	-.00008	10.00000
GRADIENT		-.01230	-.00107	.00089	.00027	.00002	-.00010	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
45.000	.000	-.00627	-.00167	.00412	-.00167	-.00019	.00037	6.00000
2.000	.000	-.02560	-.00314	.00506	-.00119	-.00021	-.00013	8.00000
4.000	.000	-.04161	-.00461	.00695	-.00054	-.00003	.00006	10.00000
GRADIENT		-.00884	-.00074	.00071	.00028	.00004	-.00008	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
50.000	.000	-.00442	-.00135	.00382	-.00150	-.00022	.00021	6.00000
2.000	.000	-.02308	-.00280	.00476	-.00098	-.00017	-.00010	8.00000
4.000	.000	-.03220	-.00417	.00635	-.00112	-.00010	.00013	10.00000
GRADIENT		-.00878	-.00070	.00063	.00010	.00003	-.00002	1.00000

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITTER DATA)

(4NH025) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8100 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0125

XMRP = 1109.0000 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.00409 DCD -.00649 DCYM .00027  
 -.03293 -.01166 .00027  
 -.09379 -.01319 .00021  
 -.02242 -.02540 .00011  
 -.00473 .01907 .00010  
 .00185 .00185 -.00014

ALPHAO  
 8.00000  
 10.00000  
 12.00000  
 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.00389 DCD -.00586 DCYM .00008  
 -.03787 -.01026 .00029  
 -.09575 -.01152 .00036  
 -.02047 -.01760 .00024  
 .00423 .00183 -.00011

ALPHAO  
 8.00000  
 10.00000  
 12.00000  
 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.00316 DCD -.00549 DCYM .00006  
 -.04327 -.00922 .00034  
 -.07980 .01002 .00041  
 -.01916 -.02072 .00111  
 .00381 .01649 .00022  
 .00182 .00182 -.00004

ALPHAO  
 8.00000  
 10.00000  
 12.00000  
 1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.00537 DCD -.00486 DCYM .00001  
 -.03619 -.00804 .00030  
 -.07486 .00969 .00009  
 .01737 .01541 .00031  
 .00368 .00184 .00002

ALPHAO  
 8.00000  
 10.00000  
 12.00000  
 1.00000

RN/L = 3.3% GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.00463 DCD -.00305 DCYM .00008  
 -.03011 -.00529 .00021  
 -.05592 .00737 .00003  
 .01282 .01372 .00024  
 .00267 .00169 .00018

ALPHAO  
 8.00000  
 10.00000  
 12.00000  
 1.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = -1.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.00865 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 45.000 ALPHAAC DCBL ALPHA0  
 .000 .00002 8.00000  
 2.000 .00003 10.00000  
 4.000 .00055 12.00000  
 GRADIENT .00013 1.00000

PARAMETRIC DATA

DZ = 50.000 ALPHAAC DCBL ALPHA0  
 .000 .00027 8.00000  
 2.000 .00017 10.00000  
 4.000 .00042 12.00000  
 GRADIENT .00004 1.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.00865 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 3.500 ALPHAAC DCBL ALPHA0  
 .000 .00018 8.00000  
 2.000 .00022 10.00000  
 4.000 .00049 12.00000  
 GRADIENT .00008 1.00000

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TABULATED SOURCE DATA - CA23B

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ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(4NH027) ( 7 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8100 IN.  
 BREF = 935.6800 IN.  
 SCALE = .0125

XMRP = 1109.0000 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 OX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.01254 DCD -.00359 DCLM .01161 DCY .00150 DCYN .00034 DCBL .00005 ALPHAO 8.00000  
 -.04592 -.00699 .01222 .00234 .00084 .00045 10.00000  
 -.08851 -.02041 .01871 .00282 -.00010 .00034 12.00000  
 -.01899 -.00421 .00177 .00033 -.00011 .00007 1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.01240 DCD -.00346 DCLM .00938 DCY .00228 DCYN .00042 DCBL -.00003 ALPHAO 8.00000  
 -.04638 -.00684 .01024 .00129 .00062 .00072 10.00000  
 -.08702 -.01993 .01558 .00292 .00002 .00024 12.00000  
 -.01866 -.00412 .00155 .00016 .00010 .00007 1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.01634 DCD -.00422 DCLM .00780 DCY .00254 DCYN -.00002 DCBL -.00029 ALPHAO 8.00000  
 -.04700 -.00739 .00925 .00226 .00007 .00026 10.00000  
 -.08152 -.01880 .01443 .00445 -.00041 .00017 12.00000  
 -.01630 -.00365 .00166 .00048 -.00010 .00011 1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.01080 DCD -.00218 DCLM .00443 DCY .00252 DCYN .00009 DCBL -.00050 ALPHAO 8.00000  
 -.03596 -.00447 .00598 .00196 .00006 .00024 10.00000  
 -.06027 -.01355 .01147 .00362 -.00026 .00012 12.00000  
 -.01237 -.00284 .00176 .00027 -.00009 .00018 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL -.00026 DCD -.00129 DCLM .00511 DCY .00162 DCYN -.00010 DCBL -.00072 ALPHAO 8.00000  
 -.02078 -.00254 .00587 .00212 .00006 .00018 10.00000  
 -.04148 -.00962 .01044 .00255 .00021 .00037 12.00000  
 -.01044 -.00208 .00133 .00023 .00008 .00027 1.00000

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ = 50.000  
 ALPHAC = 50.000  
 DCL = -.00294 DCD = .00403 DCY = .00187 DCYN = .00007 DCBL = -.00076 ALPHAO = 8.00000  
 DCLM = .00122 DCLM = .00490 DCLM = .00229 DCLM = .00007 DCBL = -.00014 ALPHAO = 10.00000  
 DCLM = -.01945 DCLM = -.00228 DCLM = .00222 DCLM = .00033 DCBL = .00052 ALPHAO = 12.00000  
 DCLM = -.03623 DCLM = -.00832 DCLM = .01019 DCLM = .00007 DCBL = .00032 ALPHAO = 1.00000  
 DCLM = -.00632 DCLM = -.00178 DCLM = .00154 DCLM = .00007 DCBL = .00032 ALPHAO = 1.00000

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ = 3.500  
 ALPHAC = 3.500  
 DCL = -.0178E DCD = -.00546 DCY = .00332 DCYN = -.00007 DCBL = .00056 ALPHAO = 6.00000  
 DCLM = -.05470 DCLM = -.00908 DCLM = .01713 DCLM = .00018 DCBL = .00016 ALPHAO = 8.00000  
 DCLM = -.10183 DCLM = -.01492 DCLM = .01916 DCLM = .00044 DCBL = .00018 ALPHAO = 10.00000  
 DCLM = -.02099 DCLM = -.00236 DCLM = .00003 DCLM = .00013 DCBL = -.00010 ALPHAO = 1.00000

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ = 7.500  
 ALPHAC = 7.500  
 DCL = -.01541 DCD = -.00498 DCY = .00332 DCYN = -.00017 DCBL = .00018 ALPHAO = 6.00000  
 DCLM = -.05459 DCLM = -.00832 DCLM = .01250 DCLM = .00008 DCBL = .00016 ALPHAO = 8.00000  
 DCLM = -.09455 DCLM = -.01389 DCLM = .01484 DCLM = .00025 DCBL = .00012 ALPHAO = 10.00000  
 DCLM = -.01553 DCLM = -.00223 DCLM = .00017 DCLM = .00010 DCBL = -.00002 ALPHAO = 1.00000

ARC 14-120(CA23B) 747/1 ATI 03SI (ORBITER DATA)

(4NH034) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6300 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
-.01663	-.00514	.01181	.00282	-.00019	-.00002	6.00000
-.05337	-.00797	.01022	.00308	-.00006	-.00002	8.00000
-.09114	-.01320	.01322	.00278	.00015	.00002	10.00000
-.01863	-.00201	.00035	-.00001	.00008	.00001	1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
-.01736	-.00449	.00851	.00243	-.00042	-.00011	6.00000
-.05103	-.00746	.00710	.00309	-.00016	-.00018	8.00000
-.08662	-.01206	.01048	.00274	.00016	.00009	10.00000
-.01731	-.00189	.00049	.00008	.00014	.00005	1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
-.01202	-.00293	.00625	.00237	-.00038	-.00055	6.00000
-.03756	-.00503	.00652	.00307	-.00000	-.00047	8.00000
-.06403	-.00813	.00875	.00268	-.00025	-.00011	10.00000
-.01300	-.00130	.00063	-.00002	.00003	.00011	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
-.00847	-.00262	.00520	.00176	-.00033	-.00047	6.00000
-.02439	-.00376	.00655	.00196	-.00028	-.00073	8.00000
-.04397	-.00545	.00784	.00195	-.00026	.00003	10.00000
-.00887	-.00071	.00066	.00005	.00002	.00012	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
-.00897	-.00227	.00489	.00178	-.00011	-.00015	6.00000
-.01320	-.00361	.00681	.00173	-.00018	-.00071	8.00000
-.03658	-.00474	.00781	.00234	-.00013	-.00021	10.00000
-.00740	-.00052	.00073	.00014	.00000	-.00001	1.00000

REFERENCE DATA      PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.      XMRP = 1109.0000 IN. X0      BETA = .000      STAB = 5.000  
 LREF = 474.8100 IN.      YMRP = .0000 IN. Y0      RUDDER = .000      ELEVON = .000  
 BREF = 935.6800 IN.      ZMRP = 375.0000 IN. Z0      IORB = .000      DX = .000  
 SCALE = .0125           DY = .000      MACH = .600

RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
3.500	.000	-.02033	-.00358	.01564	.00214	.00037	.00043	4.00000
2.000	2.000	-.06597	-.00737	-.01506	-.00184	.00028	.00059	6.00000
4.000	4.000	-.09756	-.01132	-.01203	.00024	.00024	.00029	8.00000
GRADIENT		-.01931	-.00194	-.00090	-.00019	-.00003	-.00004	1.00000

RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
7.500	.000	-.01822	-.00313	.01038	.00156	.00048	.00039	4.00000
2.000	2.000	-.06073	-.00700	.01018	.00141	.00028	.00041	6.00000
4.000	4.000	-.09303	-.01043	.00709	.00087	.00022	.00020	8.00000
GRADIENT		-.01870	-.00183	-.00082	-.00017	-.00007	-.00005	1.00000

RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
10.000	.000	-.01384	-.00299	.00824	.00111	.00052	.00046	4.00000
2.000	2.000	-.05231	-.00647	.00847	.00120	.00032	.00022	6.00000
4.000	4.000	-.08542	-.00979	.00600	.00112	.00036	.00003	8.00000
GRADIENT		-.01790	-.00170	-.00056	.00000	-.00004	-.00011	1.00000

RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
15.000	.000	-.01238	-.00241	.00569	.00077	.00039	.00020	4.00000
2.000	2.000	-.04890	-.00548	.00626	.00056	-.00015	-.00006	6.00000
4.000	4.000	-.08142	-.00859	.00371	.00096	.00030	.00007	8.00000
GRADIENT		-.01726	-.00155	-.00050	.00005	-.00002	-.00003	1.00000

RN/L = 3.29      GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
30.000	.000	-.00989	-.00117	.00271	-.00011	.00025	.00026	4.00000
2.000	2.000	-.03666	-.00329	.00408	.00024	.00002	-.00017	6.00000
4.000	4.000	-.06077	-.00534	.00328	.00010	.00010	-.00017	8.00000
GRADIENT		-.01272	-.00104	.00014	.00059	-.00004	-.00011	1.00000

ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITTER DATA)

(4NH035) 17 OCT 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCD  
 .00026  
 -.00184  
 -.00328  
 -.00075

DCL  
 .00098  
 -.02753  
 -.03984  
 -.01021

DCLM  
 .00223  
 .00334  
 .00383  
 .00040

DCY  
 -.00039  
 -.00049  
 -.00062  
 -.00006

DCYN  
 .00005  
 -.00001  
 -.00016  
 -.00005

DCBL  
 .00020  
 -.00011  
 -.00051  
 -.00018

ALPHAO  
 4.00000  
 6.00000  
 8.00000  
 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 4.000 OX = .000  
 DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCD  
 .00001  
 -.00141  
 -.00270  
 -.00068

DCL  
 .00466  
 -.02542  
 -.03415  
 -.00970

DCLM  
 .00214  
 .00314  
 .00379  
 .00041

DCY  
 -.00051  
 -.00086  
 -.00091  
 -.00010

DCYN  
 -.00005  
 -.00011  
 -.00026  
 -.00005

DCBL  
 .00013  
 -.00011  
 -.00062  
 -.00019

ALPHAO  
 4.00000  
 6.00000  
 8.00000  
 1.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.00713  
 -.01311  
 -.00299

DCL  
 -.04879  
 -.09803  
 -.02462

DCLM  
 .01623  
 .01746  
 .00061

DCY  
 .00304  
 .00372  
 .00034

DCYN  
 -.00008  
 .00053  
 .00030

DCBL  
 .00006  
 .00021  
 .00007

ALPHAO  
 8.00000  
 10.00000  
 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 OX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITTER DATA)

(4NH036) 23 OCT 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.00672  
 -.01204  
 -.00266

DCL  
 -.04323  
 -.08968  
 -.02322

DCLM  
 .01155  
 .01288  
 .00067

DCY  
 .00377  
 .00349  
 -.00014

DCYN  
 .00026  
 .00045  
 .00010

DCBL  
 -.00016  
 -.00010  
 .00003

ALPHAO  
 8.00000  
 10.00000  
 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = .000  
 TORB = 6.000 OX = .000  
 DY = .000 MACH = .600



REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = 10.000 ELEVON = .000  
 BREF = 935.6900 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = 3.30 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 10.000 ALPHA DCBL = .00010 ALPHAO = 8.00000  
 ALPHAC = 2.000 DCY = .00384 DCYN = .00041 DCYD = 10.00000  
 4.000 DCLM = .00870 DCLN = .00038 DCYD = 10.00000  
 GRADIENT = .01085 DCD = -.01124 DCD = -.00243 DCYD = -.00002 ALPHAO = 10.00000  
 GRADIENT = -.02080 DCL = -.04496 DCD = -.00639 DCLM = .00870 DCY = .00384 DCYN = .00041 DCYD = 10.00000  
 GRADIENT = .01085 DCL = -.07959 DCD = -.00985 DCLM = .00895 DCY = .00297 DCYN = .00032 DCYD = 10.00000  
 GRADIENT = -.01824 DCL = -.01824 DCD = -.00218 DCLM = .00126 DCY = -.00032 DCYN = .00003 DCYD = 10.00000

DZ = 15.000 ALPHA DCBL = .00008 ALPHAO = 8.00000  
 ALPHAC = 2.000 DCY = .00360 DCYN = .00025 DCYD = 10.00000  
 4.000 DCLM = .00644 DCLN = .00297 DCYD = 10.00000  
 GRADIENT = .00895 DCD = -.00549 DCD = -.00360 DCYD = 10.00000  
 GRADIENT = -.01824 DCL = -.04311 DCD = -.00549 DCLM = .00644 DCY = .00360 DCYN = .00025 DCYD = 10.00000  
 GRADIENT = .00895 DCL = -.07959 DCD = -.00985 DCLM = .00895 DCY = .00297 DCYN = .00032 DCYD = 10.00000  
 GRADIENT = -.01824 DCL = -.01824 DCD = -.00218 DCLM = .00126 DCY = -.00032 DCYN = .00003 DCYD = 10.00000

DZ = 30.000 ALPHA DCBL = .00004 ALPHAO = 8.00000  
 ALPHAC = 2.000 DCY = .00271 DCYN = .00007 DCYD = 10.00000  
 4.000 DCLM = .00510 DCLN = .00011 DCYD = 10.00000  
 GRADIENT = .00686 DCD = -.00374 DCD = -.00271 DCYD = 10.00000  
 GRADIENT = -.01413 DCL = -.02866 DCD = -.00374 DCLM = .00510 DCY = .00271 DCYN = .00007 DCYD = 10.00000  
 GRADIENT = .00686 DCL = -.05692 DCD = -.00583 DCLM = .00686 DCY = .00270 DCYN = .00011 DCYD = 10.00000  
 GRADIENT = -.01413 DCL = -.01413 DCD = -.00104 DCLM = .00088 DCY = -.00001 DCYN = .00002 DCYD = 10.00000

DZ = 45.000 ALPHA DCBL = .00019 ALPHAO = 8.00000  
 ALPHAC = 2.000 DCY = .00225 DCYN = .00000 DCYD = 10.00000  
 4.000 DCLM = .00435 DCLN = .00010 DCYD = 10.00000  
 GRADIENT = .00586 DCD = -.00185 DCD = -.00056 DCYD = 10.00000  
 GRADIENT = -.01007 DCL = -.01920 DCD = -.00185 DCLM = .00435 DCY = .00225 DCYN = .00000 DCYD = 10.00000  
 GRADIENT = .00586 DCL = -.03375 DCD = -.00314 DCLM = .00586 DCY = .00279 DCYN = .00010 DCYD = 10.00000  
 GRADIENT = -.01007 DCL = -.01007 DCD = -.00065 DCLM = .00076 DCY = .00027 DCYN = .00005 DCYD = 10.00000

DZ = 50.000 ALPHA DCBL = .00019 ALPHAO = 8.00000  
 ALPHAC = 2.000 DCY = .00207 DCYN = .00014 DCYD = 10.00000  
 4.000 DCLM = .00399 DCLN = .00003 DCYD = 10.00000  
 GRADIENT = .00533 DCD = -.00153 DCD = -.00258 DCYD = 10.00000  
 GRADIENT = -.00648 DCL = -.03099 DCD = -.00194 DCLM = .00533 DCY = .00207 DCYN = .00014 DCYD = 10.00000  
 GRADIENT = -.00648 DCL = -.03099 DCD = -.00194 DCLM = .00533 DCY = .00207 DCYN = .00014 DCYD = 10.00000

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ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

(4NH037) ( 23 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .500

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 3.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
.000	-.01248	-.00441	.01853	.00401	.00058	.00048	6.00000
2.000	-.05894	-.00880	.01711	.00299	.00017	.00017	8.00000
4.000	-.10367	-.01488	.01863	.00327	.00071	.00041	10.00000
GRADIENT	-.02280	-.00262	.00003	-.00019	.00003	-.00002	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 7.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
.000	-.01332	-.00456	.01268	.00311	.00017	.00018	6.00000
2.000	-.05422	-.00833	.01209	.00353	.00041	-.00011	8.00000
4.000	-.09400	-.01364	.01445	.00358	.00044	-.00003	10.00000
GRADIENT	-.02017	-.00227	.00044	-.00013	.00007	-.00005	1.00000

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
.000	-.01025	-.00431	.01074	.00287	.00004	.00016	6.00000
2.000	-.05664	-.00818	.00957	.00230	.00022	.00001	8.00000
4.000	-.09193	-.01299	.01239	.00231	.00042	.00002	10.00000
GRADIENT	-.02042	-.00217	.00041	-.00014	.00010	-.00004	1.00000

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
.000	-.00819	-.00384	.00794	.00239	.00002	-.00003	6.00000
2.000	-.05537	-.00729	.00637	.00300	.00026	-.00018	8.00000
4.000	-.08634	-.01187	.00967	.00186	.00013	.00010	10.00000
GRADIENT	-.02004	-.00201	.00043	-.00013	.00003	.00003	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
.000	-.00732	-.00253	.00480	.00175	-.00009	-.00032	6.00000
2.000	-.04208	-.00488	.00470	.00231	.00021	-.00034	8.00000
4.000	-.06407	-.00738	.00799	.00204	.00014	.00013	10.00000
GRADIENT	-.01419	-.00121	.00080	.00007	.00006	.00011	1.00000

(4NH037) ( 23 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC = .000  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
-.01336	-.00198	.00251	.00180	.00002	-.00336	6.00000
-.02421	-.00337	.00599	.00194	.00007	-.00068	8.00000
-.04167	-.00469	.00697	.00233	-.00002	-.00006	10.00000
-.00708	-.00068	.00111	.00036	-.00001	.00008	1.00000

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC = .000  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
-.00026	-.00160	.00313	.00160	.00014	-.00027	6.00000
-.02044	-.00284	.00545	.00153	.00002	-.00052	8.00000
-.03793	-.00378	.00641	.00158	-.00015	.00009	10.00000
-.00942	-.00055	.00082	-.00000	-.00007	.00009	1.00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC = .000  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
.00191	-.00591	.01854	.00218	-.00009	.00019	6.00000
-.04490	-.01010	.01811	.00268	.00001	.00045	8.00000
-.09743	-.01677	.02049	.00352	-.00005	.00010	10.00000
-.02483	-.00272	.00049	.00034	.00001	-.00002	1.00000

PARAMETRIC DATA

BETA = .000 STAB = -1.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

(4NH038) ( 23 OCT 75 )

ARC 14-120(CA23B) 747/1 ATI 0351 (ORBITER DATA)

(4NH038) ( 23 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 ICRB = 6.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
.000	.00514	-.00517	.01237	.00170	-.00005	.00004	6.00000
2.000	-.03850	-.00917	.01224	.00238	.00026	.00015	8.00000
4.000	-.08369	-.01503	.01475	.00264	.00007	-.00023	10.00000
GRADIENT	-.02221	-.00246	.00060	.00031	.00003	-.00007	1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
.000	.00526	-.00456	.00919	.00173	.00009	-.00006	6.00000
2.000	-.03481	-.00822	.00988	.00231	.00029	.00007	8.00000
4.000	-.08228	-.01438	.01234	.00284	.00013	-.00014	10.00000
GRADIENT	-.02198	-.00246	.00079	.00028	.00001	-.00002	1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
.000	-.00215	-.00413	.00616	.00208	.00013	-.00019	6.00000
2.000	-.03194	-.00752	.00777	.00234	.00032	-.00002	8.00000
4.000	-.07395	-.01269	.01053	.00298	.00026	-.00018	10.00000
GRADIENT	-.01793	-.00214	.00109	.00022	.00003	.00000	1.00000

PN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
.000	.00582	-.00276	.00471	.00175	.00006	-.00032	6.00000
2.000	-.02352	-.00504	.00569	.00179	.00014	.00001	8.00000
4.000	-.05927	-.00883	.00782	.00274	.00017	-.00016	10.00000
GRADIENT	-.01827	-.00152	.00078	.00025	.00003	.00004	1.00000

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA
.000	.00301	-.00175	.00343	.00154	-.00001	-.00024	6.00000
2.000	-.02008	-.00352	.00439	.00212	.00026	-.00004	8.00000
4.000	-.04758	-.00648	.00636	.00225	.00003	-.00014	10.00000
GRADIENT	-.01267	-.00118	.00073	.00018	-.00001	-.00002	1.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO STAB = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO DX = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .000000 MACH = .600 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000 ALPHA DCBL ALPHAO  
 .000 .000000 6.000000  
 .000 .000000 8.000000  
 2.000 .00170 DCL DCLM DCY DCYN DCBL ALPHAO  
 .00164 -.00321 -.00112 -.00026 -.00044 6.000000  
 -.01478 -.00325 .00170 .00000 -.00012 8.000000  
 4.000 -.04308 -.00553 .00265 .00005 10.000000  
 GRADIENT -.01119 -.00097 .00038 .00008 .00007 1.000000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO STAB = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO DX = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .000000 MACH = .600 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500 ALPHA DCBL ALPHAO  
 .000 .000000 6.000000  
 .000 .000000 8.000000  
 2.000 .05438 DCL DCLM DCY DCYN DCBL ALPHAO  
 -.01020 .01298 .00328 .00041 .00089 8.000000  
 -.10292 -.01741 .00155 .00029 .00084 10.000000  
 GRADIENT -.02422 -.00360 .00184 -.00087 -.00016 1.000000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500 ALPHA DCBL ALPHAO  
 .000 .000000 6.000000  
 .000 .000000 8.000000  
 2.000 .04489 DCL DCLM DCY DCYN DCBL ALPHAO  
 -.00895 .01019 .00290 .00043 .00069 8.000000  
 4.000 .05259 -.01553 .00270 .00021 .00042 10.000000  
 GRADIENT -.02255 -.00329 .00189 -.00010 -.00011 1.000000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000 ALPHA DCBL ALPHAO  
 .000 .000000 6.000000  
 .000 .000000 8.000000  
 2.000 .04123 DCL DCLM DCY DCYN DCBL ALPHAO  
 -.00817 .00948 .00237 .00030 .00056 8.000000  
 4.000 .03414 -.01243 .00208 .00061 10.000000  
 GRADIENT -.02546 -.00355 .00148 -.00015 -.00003 1.000000

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ARC 14-120(CA23B) 747/1 ATI 0251 (ORBITER DATA)

(4NH039) ( 23 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.03908  
 -.08631  
 -.02362

DCD  
 -.00747  
 -.01371  
 -.00312

DCLM  
 .00823  
 .01154  
 .00166

DCY  
 .00173  
 .00203  
 .00015

DCYN  
 .00023  
 .00021  
 -.00001

DCBL  
 .00056  
 .00052  
 -.00002

ALPHA0  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.02994  
 -.05831  
 -.01418

DCD  
 -.00503  
 -.00851  
 -.00174

DCLM  
 .00638  
 .00986  
 .00174

DCY  
 .00137  
 .00180  
 .00021

DCYN  
 .00009  
 .00007  
 -.00001

DCBL  
 .00022  
 .00022  
 -.00000

ALPHA0  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01654  
 -.04666  
 -.01501

DCD  
 -.00362  
 -.00619  
 -.00128

DCLM  
 .00575  
 .00769  
 .00097

DCY  
 .00203  
 .00248  
 .00023

DCYN  
 .00009  
 .00008  
 -.00001

DCBL  
 .00000  
 -.00015  
 -.00008

ALPHA0  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01470  
 -.04220  
 -.01375

DCD  
 -.00341  
 -.00532  
 -.00096

DCLM  
 .00335  
 .00394  
 .00079

DCY  
 .00210  
 .00205  
 -.00003

DCYN  
 .00011  
 .00001  
 -.00005

DCBL  
 .00006  
 -.00009  
 -.00007

ALPHA0  
 8.00000  
 10.00000  
 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = 10.000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .500

DATE 23 MAR 76

TABLULATED SOURCE DATA - CA23B

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITTER DATA)

(4NH040) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 3.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.02039  
 -.06091  
 -.10117  
 -.02020

DCD  
 -.00545  
 -.00930  
 -.01364  
 -.00205

DCLM  
 .01175  
 .01167  
 .01166  
 -.00002

DCY  
 .00226  
 .00210  
 .00231  
 .00001

DCYN  
 .00038  
 .00030  
 .00037  
 -.00000

DCBL  
 .00103  
 .00107  
 .00097  
 -.00001

ALPHAO  
 4.00000  
 6.00000  
 8.00000  
 1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 7.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01524  
 -.05715  
 -.09689  
 -.02041

DCD  
 -.00487  
 -.00831  
 -.01268  
 -.00195

DCLM  
 .00862  
 .00842  
 .00876  
 .00003

DCY  
 .00238  
 .00168  
 .00154  
 -.00021

DCYN  
 .00026  
 .00022  
 .00027  
 .00000

DCBL  
 .00063  
 .00085  
 .00087  
 .00006

ALPHAO  
 4.00000  
 6.00000  
 8.00000  
 1.00000

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 10.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01397  
 -.05200  
 -.09185  
 -.01947

DCD  
 -.00462  
 -.00778  
 -.01194  
 -.00183

DCLM  
 .00741  
 .00793  
 .00812  
 .00018

DCY  
 .00291  
 .00190  
 .00154  
 -.00034

DCYN  
 .00037  
 .00027  
 .00027  
 -.00003

DCBL  
 .00055  
 .00072  
 .00070  
 .00004

ALPHAO  
 4.00000  
 6.00000  
 8.00000  
 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 15.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01824  
 -.04705  
 -.09350  
 -.01634

DCD  
 -.00414  
 -.00684  
 -.01053  
 -.00160

DCLM  
 .00522  
 .00573  
 .00734  
 .00053

DCY  
 .00154  
 .00109  
 .00058  
 -.00024

DCYN  
 .00017  
 .00008  
 .00010  
 -.00002

DCBL  
 .00028  
 .00064  
 .00076  
 .00012

ALPHAO  
 4.00000  
 6.00000  
 8.00000  
 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 30.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01359  
 -.03375  
 -.06503  
 -.01250

DCD  
 -.00269  
 -.00439  
 -.00709  
 -.00110

DCLM  
 .00330  
 .00533  
 .00555  
 .00056

DCY  
 .00121  
 .00138  
 .00044  
 -.00019

DCYN  
 .00005  
 .00008  
 .00008  
 .00001

DCBL  
 .00010  
 .00013  
 .00046  
 .00014

ALPHAO  
 4.00000  
 6.00000  
 8.00000  
 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 ICFB = 4.000 DX = .000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(4NH040) ( 17 OCT 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL DCC DCLM DCY DCYN DCBL ALPHAO  
 -.00796 -.00159 .00261 .00108 .00006  
 -.02857 -.00287 .00416 .00104 .00001  
 -.04340 -.00458 .00528 .00132 .00011  
 -.00886 -.00075 .00067 .00006 .00001

BETA = .000 STAB = 5.000  
 RUDDER = .070 ELEVON = 5.000  
 TORB = 4.000 DX = .008  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.32 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL DCC DCLM DCY DCYN DCBL ALPHAO  
 -.00684 -.00131 .00238 .00077 .00002  
 -.02764 -.00369 .00369 .00069 .00005  
 -.03577 -.00375 .00527 .00154 .00009  
 -.00723 -.00351 .00072 .00019 .00002

ARC 14-120(CA23B) 747/1 ATI 02S1 (ORBITER DATA)

(4NHX10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 35.000  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL DCC DCLM DCY DCYN DCBL ALPHAO  
 -.05575 -.01037 .01199 .00150 .00035  
 -.05646 -.02320 .01598 .00199 .00048  
 -.02935 -.00642 .00200 .00024 .00007

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 .000  
 2.000  
 4.000  
 GRADIENT

DCL DCC DCLM DCY DCYN DCBL ALPHAO  
 -.05298 -.00942 .01037 .00140 .00027  
 -.05099 -.02050 .01401 .00191 .00062  
 -.01900 -.00559 .00182 .00025 .00017

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA



REFERENCE DATA  
 SPEC = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO STAB = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = 5.000  
 SREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .00025 MACH = .600

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC = 10.000  
 2.000  
 4.000  
 GRADIENT = .00025  
 DCL = .05066 DCD = .00875 DCLM = .00920 DCY = .00146 DCYN = .00016 DCBL = .00119 ALPHAO = 10.00000  
 -.08665 -.01867 -.01262 .00197 -.00071 .00073 12.00000  
 -.01800 -.00496 .00171 .00025 -.00028 -.00023 1.00000

DZ = 15.000  
 ALPHAC = 15.000  
 2.000  
 4.000  
 GRADIENT = .00025  
 DCL = .04969 DCD = .00791 DCLM = .00785 DCY = .00075 DCYN = .00035 DCBL = .00087 ALPHAO = 10.00000  
 -.08298 -.01697 .01092 .00135 -.00082 .00037 12.00000  
 -.01665 -.00453 .00153 .00030 -.00024 -.00025 1.00000

DZ = 30.000  
 ALPHAC = 30.000  
 2.000  
 4.000  
 GRADIENT = .00025  
 DCL = .03451 DCD = .00435 DCLM = .00581 DCY = .00091 DCYN = .00052 DCBL = .00069 ALPHAO = 10.00000  
 -.06216 -.01078 .00807 .00073 -.00096 .00037 12.00000  
 -.01382 -.00322 .00113 -.00009 -.00022 -.00016 1.00000

DZ = 45.000  
 ALPHAC = 45.000  
 2.000  
 4.000  
 GRADIENT = .00025  
 DCL = .02022 DCD = .00194 DCLM = .00467 DCY = .00172 DCYN = .00048 DCBL = .00064 ALPHAO = 10.00000  
 -.04393 -.00561 .00601 .00159 -.00085 .00006 12.00000  
 -.01185 -.00183 .00067 -.00006 -.00018 -.00035 1.00000

DZ = 50.000  
 ALPHAC = 50.000  
 2.000  
 4.000  
 GRADIENT = .00025  
 DCL = .02212 DCD = .00202 DCLM = .00389 DCY = .00187 DCYN = .00047 DCBL = .00046 ALPHAO = 10.00000  
 -.03854 -.00415 .00542 .00202 -.00086 .00006 12.00000  
 -.00921 -.00106 .00076 .00008 -.00020 -.00025 1.00000

PARAMETRIC DATA

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ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(4NHX13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 SPREF = 935.6800 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL    DCD    DCLM    DCY    DCYN    DCBL    ALPHAO  
 -.05901    -.00887    .01275    .00122    .00024    .00114    8.00000  
 -.10852    -.01668    .00027    .00009    .00009    .00146    10.00000  
 -.02476    -.00391    .00167    -.00047    -.00008    .00016    1.00000

BETA = .000    STAB = 5.000  
 RUDDER = .000    ELEVON = 5.000  
 LORB = 6.000    DX = .000  
 DY = .000    MACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL    DCD    DCLM    DCY    DCYN    DCBL    ALPHAO  
 -.05802    -.00852    .01020    .00037    .00019    .00098    8.00000  
 -.10152    -.01536    .01324    -.00005    .00007    .00136    10.00000  
 -.02175    -.00342    .00152    -.00021    -.00006    .00019    1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL    DCD    DCLM    DCY    DCYN    DCBL    ALPHAO  
 -.05668    -.00839    .00963    -.00029    .00008    .00087    8.00000  
 -.09935    -.01493    .01250    .00005    .00003    .00122    10.00000  
 -.02133    -.00327    .00144    .00017    -.00002    .00017    1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL    DCD    DCLM    DCY    DCYN    DCBL    ALPHAO  
 -.05432    -.00707    .00807    -.00055    .00001    .00080    8.00000  
 -.03492    -.01339    .01094    -.00015    -.00006    .00107    10.00000  
 -.02030    -.00316    .00144    .00020    -.00003    .00014    1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL    DCD    DCLM    DCY    DCYN    DCBL    ALPHAO  
 -.04048    -.00498    .00681    -.00053    -.00009    .00045    8.00000  
 -.07350    -.00934    .00895    -.00080    -.00003    .00076    10.00000  
 -.01656    -.00218    .00107    .00067    .00003    .00016    1.00000

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(4NHX13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 3.5000 IN. ZO  
 SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.03005  
 -.05745  
 -.01370

DCD  
 -.00373  
 -.00528  
 -.00127

DCLM  
 .00603  
 .00734  
 .07065

DCY  
 -.00007  
 .00037  
 .00022

DCYN  
 -.00003  
 -.00017  
 -.00007

DCBL  
 .00044  
 .00062  
 .00009

ALPHAO  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.02713  
 -.05048  
 -.01168

DCD  
 -.00280  
 -.00491  
 -.00105

DCLM  
 .00543  
 .00667  
 .00062

DCY  
 .00001  
 .00054  
 .00026

DCYN  
 .00003  
 -.00014  
 -.00009

DCBL  
 .00060  
 .00075  
 .00007

ALPHAO  
 8.00000  
 10.00000  
 1.00000

ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(4NHX14) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 3.5000 IN. ZO  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.06091  
 -.11599  
 -.02754

DCD  
 -.00899  
 -.01682  
 -.00391

DCLM  
 .00940  
 .01105  
 .00083

DCY  
 .00030  
 -.00053  
 -.00042

DCYN  
 .00039  
 .00022  
 -.00008

DCBL  
 .00139  
 .00154  
 .00007

ALPHAO  
 8.00000  
 10.00000  
 1.00000

DZ = 7.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.05585  
 -.10527  
 -.02471

DCD  
 -.00842  
 -.01539  
 -.00349

DCLM  
 .00759  
 .00848  
 .00045

DCY  
 -.00000  
 -.00040  
 -.00020

DCYN  
 .00027  
 .00015  
 -.00006

DCBL  
 .00108  
 .00141  
 .00016

ALPHAO  
 8.00000  
 10.00000  
 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

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ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(4NHX14) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 DCL  
 DCLM  
 DCY  
 DCYN  
 DCBL  
 ALPHA0  
 8.00000  
 10.00000  
 1.00000

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 DCL  
 DCLM  
 DCY  
 DCYN  
 DCBL  
 ALPHA0  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 DCL  
 DCLM  
 DCY  
 DCYN  
 DCBL  
 ALPHA0  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 DCL  
 DCLM  
 DCY  
 DCYN  
 DCBL  
 ALPHA0  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 DCL  
 DCLM  
 DCY  
 DCYN  
 DCBL  
 ALPHA0  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA) (4NHX15) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6900 IN. ZMRP = 375.0000 IN. ZO DY = .000 DX = 10.000  
 SCALE = .0125 GRADIENT = .000000 HACH = .600

PARAMETRIC DATA

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHA ACDC DCL DCLM DCY DCYN DCBL ALPHAO  
 2.000 -.06896 -.01387 .00831 -.00080 .00015 .00137 10.00000  
 4.000 -.11503 -.02678 .01207 .00149 -.00003 .00122 12.00000  
 GRADIENT -.02304 -.00646 .00188 .00115 -.00009 -.00007 1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHA ACDC DCL DCLM DCY DCYN DCBL ALPHAO  
 2.000 -.06158 -.01118 .00772 .00003 .00007 .00138 10.00000  
 4.000 -.10429 -.02369 .01082 .00131 -.00024 .00100 12.00000  
 GRADIENT -.02136 -.00625 .00155 .00064 -.00015 -.00019 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHA ACDC DCL DCLM DCY DCYN DCBL ALPHAO  
 2.000 -.05639 -.00946 .00721 .00064 .00004 .00139 10.00000  
 4.000 -.09661 -.02157 .00998 .00132 -.00035 .00078 12.00000  
 GRADIENT -.02011 -.00606 .00139 .00034 -.00019 -.00030 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHA ACDC DCL DCLM DCY DCYN DCBL ALPHAO  
 2.000 -.05254 -.00828 .00509 .00023 .00013 .00115 10.00000  
 4.000 -.08731 -.01873 .00353 .00067 .00067 .00091 12.00000  
 GRADIENT -.01739 -.00522 .00122 .00021 -.00027 -.00012 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHA ACDC DCL DCLM DCY DCYN DCBL ALPHAO  
 2.000 -.03332 -.00418 .00472 .00079 .00024 .00096 10.00000  
 4.000 -.06374 -.01162 .00643 .00105 .00075 .00076 12.00000  
 GRADIENT -.01521 -.00372 .00086 .00013 -.00025 -.00010 1.00000

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(4NHX15) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
 -.02608 -.00303 .00389 .00061 -.00043 .00049 10.00000  
 -.04649 -.00679 .00515 .00190 -.00065 .00034 12.00000  
 -.01020 -.00188 .00063 .00064 -.00011 -.00008 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
 -.02004 -.00208 .00380 .00098 -.00041 .00063 10.00000  
 -.03890 -.00513 .00486 .00159 -.00081 .00044 12.00000  
 -.00943 -.00153 .00053 .00031 -.00020 -.00009 1.00000

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(4NHX16) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
 -.06113 -.00634 .00471 .00114 .00032 .00115 8.00000  
 -.11479 -.01393 .00516 .00087 .00020 .00141 10.00000  
 -.02683 -.00379 .00023 -.00013 -.00005 .00013 1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
 -.05638 -.00622 .00229 .00129 .00038 .00093 8.00000  
 -.10534 -.01320 .00261 .00119 .00025 .00117 10.00000  
 -.02738 -.00349 .00016 -.00005 -.00006 .00012 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = 10.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO GRADIENT = .000 DX = 20.000  
 SCALE = .0125 GRADIENT INTERVAL = -5.00/ 5.00 DY = .000 MACH = .600

PARAMETRIC DATA

DZ = 10.000  
 ALPHAAC 2.000 DCL .05640 DCD -.00624 DCY .00052 DCYD .00022 DCBL .00085 ALPHAO 8.00000  
 4.000 DCLM .00158 DCLM .00137 DCLM .00033 DCYD .00016 DCBL .00075  
 GRADIENT .00091 GRADIENT .00027 GRADIENT .00034 DCYD .00004 DCBL .00093  
 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00 ALPHAO 10.00000  
 .00020 .00020 .00015

DZ = 15.000  
 ALPHAAC 2.000 DCL .05120 DCD -.00599 DCY .00033 DCYD .00016 DCBL .00075  
 4.000 DCLM .00137 DCLM .00191 DCLM .00070 DCYD .00004 DCBL .00093  
 GRADIENT .00034 GRADIENT .00027 GRADIENT .00034 DCYD .00006 DCBL .00009  
 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00 ALPHAO 1.00000

DZ = 30.000  
 ALPHAAC 2.000 DCL .03825 DCD -.00459 DCY .00039 DCYD .00003 DCBL .00028  
 4.000 DCLM .00190 DCLM .00249 DCLM .00070 DCYD .00003 DCBL .00078  
 GRADIENT .00041 GRADIENT .00191 GRADIENT .00015 DCYD .00003 DCBL .00025  
 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00 ALPHAO 8.00000  
 .001784 .00029 .00015

DZ = 45.000  
 ALPHAAC 2.000 DCL .02714 DCD -.00346 DCY .00053 DCYD .00003 DCBL .00041  
 4.000 DCLM .00259 DCLM .00302 DCLM .00123 DCYD .00015 DCBL .00038  
 GRADIENT .00039 GRADIENT .00022 GRADIENT .00035 DCYD .00009 DCBL .00002  
 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00 ALPHAO 10.00000  
 .00109 .00022 .00035

DZ = 50.000  
 ALPHAAC 2.000 DCL .02526 DCD -.00300 DCY .00078 DCYD .00009 DCBL .00043  
 4.000 DCLM .00266 DCLM .00298 DCLM .00145 DCYD .00016 DCBL .00037  
 GRADIENT .00094 GRADIENT .00097 GRADIENT .00033 DCYD .00013 DCBL .00003  
 RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00 ALPHAO 10.00000  
 .00137 .00016 .00033

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(4NHX17) ( 17 OCT 75

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 938.5900 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
 -.07194 -.01240 .00609 -.00009 .00004 .00072 10.00000  
 -.11485 -.02458 .00788 .00325 -.00012 .00103 12.00000  
 -.02145 -.00609 .00090 .00167 -.00008 .00015 1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
 -.06455 -.00980 .00492 .00109 .00000 .00092 10.00000  
 -.10796 -.02295 .00649 .00238 -.00033 .00079 12.00000  
 -.02171 -.00657 .00079 .00064 -.00016 -.00006 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
 -.05907 -.00811 .00395 .00186 .00000 .00109 10.00000  
 -.10245 -.02173 .00552 .00170 -.00048 .00060 12.00000  
 -.02169 -.00681 .00078 -.00008 -.00024 -.00024 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
 -.05730 -.00772 .00293 .00212 .00009 .00072 10.00000  
 -.09769 -.02025 .00436 .00168 -.00059 .00048 12.00000  
 -.02020 -.00627 .00072 -.00022 -.00025 -.00012 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCLM DCY DCYN DCBL ALPHAO  
 -.04240 -.00486 .00233 .00215 .00015 .00070 10.00000  
 -.07051 -.01311 .00381 .00276 -.00080 .00026 12.00000  
 -.01406 -.00413 .00074 .00030 -.00033 -.00022 1.00000



DATE 23 MAR 76

TABULATED SOURCE DATA - CA23B  
ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO STAB = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO DX = 8.000 DX = 20.000  
 SCALE = .0125 GRADIENT = .000 MACH = .000 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC = 2.000  
 GRADIENT = 4.000

DCL	DCD	DCY	DCYN	DCBL	ALPHA0
-.02781	-.00341	.00145	-.00049	.00054	10.00000
-.05007	-.00754	.00261	-.00082	-.00009	12.00000
-.01113	-.00207	.00058	-.00017	-.00032	1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC = 2.000  
 GRADIENT = 4.000

DCL	DCD	DCY	DCYN	DCBL	ALPHA0
-.02792	-.00301	.00184	-.00034	.00043	10.00000
-.04699	-.00657	.00311	-.00078	-.00008	12.00000
-.00954	-.00173	.00064	-.00022	-.00026	1.00000

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO STAB = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO ELEVON = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO DX = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = .000 MACH = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC = 2.000  
 GRADIENT = 4.000

DCL	DCD	DCY	DCYN	DCBL	ALPHA0
-.04486	-.00721	.00335	.00121	.00023	10.00000
-.09167	-.02110	.00239	-.00008	.00047	12.00000
-.02340	-.00694	-.00048	-.00065	.00012	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC = 2.000  
 GRADIENT = 4.000

DCL	DCD	DCY	DCYN	DCBL	ALPHA0
-.04611	-.00713	.00237	.00083	.00045	10.00000
-.05875	-.02045	.00283	-.00039	.00033	12.00000
-.02132	-.00666	.00023	-.00056	-.00006	1.00000

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ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(4MHX27) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.04655  
 -.08741  
 -.02043  
 GRADIENT

DCLM  
 .01027  
 .01570  
 .00272  
 GRADIENT

DCY  
 .00132  
 .00294  
 .00081  
 GRADIENT

DCBL  
 .00072  
 .00023  
 -.00025  
 GRADIENT

ALPHA0  
 10.00000  
 12.00000  
 1.00000  
 GRADIENT

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.04708  
 -.08172  
 -.01732  
 GRADIENT

DCLM  
 .00924  
 .01440  
 .00258  
 GRADIENT

DCY  
 .00227  
 .00441  
 .00107  
 GRADIENT

DCBL  
 .00027  
 .00017  
 -.00005  
 GRADIENT

ALPHA0  
 10.00000  
 12.00000  
 1.00000  
 GRADIENT

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.03599  
 -.05044  
 -.01222  
 GRADIENT

DCLM  
 .00603  
 .01148  
 .00272  
 GRADIENT

DCY  
 .00198  
 .00361  
 .00082  
 GRADIENT

DCBL  
 .00024  
 .00011  
 -.00006  
 GRADIENT

ALPHA0  
 10.00000  
 12.00000  
 1.00000  
 GRADIENT

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.02090  
 -.04167  
 -.01039  
 GRADIENT

DCLM  
 .00590  
 .01047  
 .00228  
 GRADIENT

DCY  
 .00214  
 .00255  
 .00020  
 GRADIENT

DCBL  
 -.00018  
 .00037  
 .00027  
 GRADIENT

ALPHA0  
 10.00000  
 12.00000  
 1.00000  
 GRADIENT

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.01949  
 -.03651  
 -.00851  
 GRADIENT

DCLM  
 .00495  
 .01024  
 .00264  
 GRADIENT

DCY  
 .00231  
 .00222  
 -.00004  
 GRADIENT

DCBL  
 -.00014  
 .00052  
 .00033  
 GRADIENT

ALPHA0  
 10.00000  
 12.00000  
 1.00000  
 GRADIENT

TABULATED SOURCE DATA - CA238

DATE 23 MAR 76

(4NHX28) ( 17 OCT 75 )

ARC 14-120(CA238) 747/1 AT1 0351 (ORBITER DATA)

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LPEF = 474.8100 IN. YMRP = .0000 IN. YO  
 BPEF = 930.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = 10.000  
 DY = .000 MACH = .600

REFERENCE DATA

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
2.000	-.05591	-.00731	.00917	.00275	.00062	.00045	8.00000
4.000	-.10299	-.01249	.00935	.00283	.00103	.00051	10.00000
GRADIENT	-.02354	-.00259	.00009	.00004	.00021	.00003	1.00000

DZ = 7.500

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
2.000	-.05119	-.00679	.00524	.00261	.00059	.00018	8.00000
4.000	-.09406	-.01194	.00584	.00240	.00084	.00033	10.00000
GRADIENT	-.02144	-.00257	.00030	-.00011	.00012	.00008	1.00000

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
2.000	-.04934	-.00672	.00360	.00194	.00037	.00011	8.00000
4.000	-.09185	-.01149	.00454	.00192	.00065	.00038	10.00000
GRADIENT	-.02126	-.00238	.00047	-.00001	.00014	.00014	1.00000

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
2.000	-.04749	-.00613	.00181	.00193	.00039	.00006	8.00000
4.000	-.08837	-.01039	.00286	.00153	.00055	.00022	10.00000
GRADIENT	-.02044	-.00213	.00052	-.00020	.00008	.00014	1.00000

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
2.000	-.03913	-.00447	.00161	.00150	.00024	.00020	8.00000
4.000	-.06512	-.00658	.00364	.00170	.00030	.00005	10.00000
GRADIENT	-.01300	-.00105	.00101	.00010	.00003	.00012	1.00000

DATE 23 MAR 76

TABLATED SOURCE DATA - CA23B

PAGE 640

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(4NHX28) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC = 2.000  
 4.000  
 GRADIENT = .01016

CCL = .02768  
 -.04800  
 -.01016

DCD = .00311  
 -.00420  
 -.00054

DCLM = .00276  
 .00336  
 .00030

DCY = .00082  
 .00153  
 .00036

DCYN = .00008  
 .00025  
 .00009

DCBL = .00037  
 .00026  
 .00032

ALPHA = 8.00000  
 10.00000  
 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC = 2.000  
 4.000  
 GRADIENT = .00958

DCL = .01967  
 -.03884  
 -.00958

DCD = .00272  
 -.00341  
 -.00034

DCLM = .00351  
 .00374  
 .00012

DCY = .00081  
 .00152  
 .00036

DCYN = .00013  
 .00018  
 .00003

DCBL = .00052  
 .00009  
 .00031

ALPHA = 8.00000  
 10.00000  
 1.00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(4NHX29) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC = 2.000  
 4.000  
 GRADIENT = .02486

DCL = .06068  
 -.11040  
 -.02486

DCD = .01152  
 -.02446  
 -.00647

DCLM = .01200  
 .01766  
 .00283

DCY = .00231  
 .00368  
 .00069

DCYN = .00094  
 .00066  
 -.00014

DCBL = .00043  
 -.00044  
 -.00044

ALPHA = 10.00000  
 12.00000  
 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC = 2.000  
 4.000  
 GRADIENT = .02353

DCL = .05537  
 -.16244  
 -.02353

DCD = .00889  
 -.02287  
 -.00699

DCLM = .00902  
 .01457  
 .00278

DCY = .00218  
 .00323  
 .00053

DCYN = .00073  
 .00031  
 -.00021

DCBL = .00057  
 -.00022  
 -.00039

ALPHA = 10.00000  
 12.00000  
 1.00000

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 LORB = 6.000  
 DY = .000

STAB = 5.000  
 ELEVON = .000  
 DX = 10.000  
 MACH = .600

PARAMETRIC DATA

BETA = .000  
 RUDDER = .000  
 LORB = 8.000  
 DY = .000

STAB = 5.000  
 ELEVON = .000  
 DX = 10.000  
 MACH = .600

REFERENCE DATA PARAMETRIC DATA

SREF = 2690.0000 SQ.FT.	XMRP = 1109.0000 IN. X0	BETA = .000 STAB = 5.000
LREF = 474.8100 IN.	YMRP = .0000 IN. Y0	RUDDER = .000 ELEVON = .000
BREF = 936.6800 IN.	ZMRP = 375.0000 IN. Z0	IORB = 8.000 DX = 10.000
SCALE = .0125		DY = .000 MACH = .600

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-.05129	-.00718	.00681	.00211	.00362	.00064	10.00000
4.000	-.09616	-.02165	.01232	.00296	.00010	-.00005	12.00000
GRADIENT	-.02244	-.00724	.00275	.00043	-.00026	-.00034	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-.04775	-.00645	.00494	.00172	.00034	.00050	10.00000
4.000	-.09121	-.02068	.01025	.00246	-.00024	.00002	12.00000
GRADIENT	-.02173	-.00711	.00266	.00037	-.00029	-.00024	1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-.03396	-.00411	.00412	.00146	.00012	.00026	10.00000
4.000	-.06420	-.01407	.00844	.00286	-.00027	.00018	12.00000
GRADIENT	-.01512	-.00498	.00216	.00070	-.00019	-.00004	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-.02266	-.00230	.00419	.00159	.00012	-.00005	10.00000
4.000	-.04436	-.00349	.00839	.00210	.00023	.00052	12.00000
GRADIENT	-.01115	-.00360	.00225	.00026	.00005	.00029	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-.01786	-.00186	.00394	.00153	.00026	.00033	10.00000
4.000	-.04044	-.00843	.00861	.00181	.00058	.00058	12.00000
GRADIENT	-.01129	-.00329	.00233	.00014	.00016	.00013	1.00000

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITTER DATA)

(4NHX30) ( 17 DEC 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8100 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0125

XMRP = 1109.0000 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
-.06107	-.01003	.00649	.00209	.00124	.00056	10.00000
-.11544	-.02468	.00954	.00230	.00079	.00052	12.00000
-.02719	-.00733	.00153	.00011	-.00022	-.00002	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
-.05525	-.00806	.00385	.00198	.00098	.00055	10.00000
-.10763	-.02347	.00811	.00218	.00053	.00011	12.00000
-.02619	-.00771	.00213	.00010	-.00023	-.00022	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
-.04990	-.00662	.00222	.00197	.00080	.00048	10.00000
-.10169	-.02254	.00709	.00209	.00033	-.00020	12.00000
-.02589	-.00796	.00244	.00006	-.00023	-.00034	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
-.05118	-.00659	.00070	.00155	.00065	.00061	10.00000
-.09612	-.02157	.00518	.00207	.00023	-.00033	12.00000
-.02247	-.00749	.00274	.00026	-.00021	-.00047	1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
-.03860	-.00392	.00161	.00127	.00030	.00030	10.00000
-.06760	-.01511	.00606	.00241	-.00002	.00022	12.00000
-.01450	-.00559	.00223	.00057	-.00016	-.00004	1.00000

ARC 14-120(CA23B) 7477/1 ATI 0351 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC = 2.000  
 GRADIENT = 4.000

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
-.02111	-.00246	.00289	.00105	.00007	.00014	10.00000
-.05526	-.01212	.00722	.00170	.00032	.00036	12.00000
-.01708	-.00483	.00216	.00032	.00013	.00011	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC = 2.000  
 GRADIENT = 4.000

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
-.01937	-.00211	.00321	.00135	.00023	.00010	10.00000
-.04096	-.00947	.00745	.00158	.00044	.00049	12.00000
-.01080	-.00368	.00212	.00016	.00010	.00019	1.00000

ARC 14-120(CA23B) 7477/1 ATI 0351 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC = 2.000  
 GRADIENT = 4.000

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
-.05396	-.00606	.00042	.00165	.00071	.00059	8.00000
-.09749	-.01129	.00024	.00153	.00093	.00053	10.00000
-.02176	-.00262	-.00033	-.00006	.00011	-.00002	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC = 2.000  
 GRADIENT = 4.000

DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
-.04975	-.00550	-.00109	.00162	.00060	.00043	8.00000
-.09256	-.01055	-.00092	.00149	.00085	.00044	10.00000
-.02140	-.00252	.00009	-.00007	.00012	.00000	1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = 20.000  
 DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(4NHX31) ( 17 OCT 5 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-04600	-00538	-00197	.00160	.00052	.00026	8.00000
4.000	-09892	-01004	-00143	.00143	.00079	.00041	10.00000
GRADIENT	-02146	-00233	.00027	-.00008	.00014	.00007	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-04572	-00493	-00250	.00151	.00054	.00033	8.00000
4.000	-08462	-00946	-00169	.00150	.00078	.00024	10.00000
GRADIENT	-01945	-00226	.00040	-.00001	.00012	-.00005	1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-03508	-00335	-00038	.00148	.00029	-.00013	8.00000
4.000	-06537	-00663	.00076	.00058	.00024	.00044	10.00000
GRADIENT	-01514	-00164	.00057	-.00045	-.00003	.00028	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-02315	-00271	.00164	.00054	.00019	-.00019	8.00000
4.000	-04623	-00434	.00235	.00125	.00026	.00005	10.00000
GRADIENT	-01154	-00082	.00036	.00036	.00004	.00012	1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000

ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHA0
2.000	-01931	-00248	.00220	.00017	.00016	-.00032	8.00000
4.000	-04289	-00386	.00255	.00092	.00017	.00005	10.00000
GRADIENT	-01179	-00069	.00018	.00037	.00000	.00018	1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = 20.000  
 DY = .000 MACH = .600



ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1:09.0000 IN. XO = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.02335

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC = 8.00000  
 2.000  
 4.000  
 GRADIENT = .00015  
 .00021  
 .00003

DZ = 7.500  
 ALPHAC = 8.00000  
 2.000  
 4.000  
 GRADIENT = .00015  
 .00007  
 .00025  
 .00016

DZ = 10.000  
 ALPHAC = 8.00000  
 2.000  
 4.000  
 GRADIENT = .00001  
 .00004  
 .00003

DZ = 15.000  
 ALPHAC = 8.00000  
 2.000  
 4.000  
 GRADIENT = .00018  
 .00011  
 .00014

DZ = 30.000  
 ALPHAC = 8.00000  
 2.000  
 4.000  
 GRADIENT = .00046  
 .00008  
 .00019

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600

DCBL = 8.00000  
 .00015  
 .00021  
 .00003

DCBL = 8.00000  
 .00003  
 .00014  
 .00006

DCBL = 8.00000  
 .00001  
 .00004  
 .00003

DCBL = 8.00000  
 .00018  
 .00011  
 .00014

DCBL = 8.00000  
 .00046  
 .00008  
 .00019

DCY = .00366  
 .00019  
 .00043  
 .00012

DCY = .00310  
 .00007  
 .00025  
 .00016

DCY = .00303  
 .00005  
 .00016  
 .00010

DCY = .00303  
 .00016  
 .00016  
 .00016

DCY = .00302  
 .00000  
 .00024  
 .00012

DCLM = .01703  
 .01886  
 .00092

DCLM = .01242  
 .01451  
 .00105

DCLM = .01014  
 .01295  
 .00141

DCLM = .00703  
 .01020  
 .00159

DCLM = .00641  
 .00847  
 .00103

DCD = -.00882  
 -.01458  
 -.00288

DCD = -.00815  
 -.01351  
 -.00268

DCD = -.00780  
 -.01294  
 -.00257

DCD = -.00726  
 -.01174  
 -.00224

DCD = -.00490  
 -.00777  
 -.00144

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ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(4NHX34) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
ALPHAC  
2.000  
4.000  
GRADIENT

DCD  
-.02424  
-.00359  
-.00512  
-.00754  
-.00076

DCL  
-.04352  
-.00964

DCLM  
.00639  
.00190  
.00194  
.00002  
.00058

DCY  
.00190  
.00194  
.00002  
.00058

DCYN  
-.00026  
-.00025  
.00001

DCBL  
-.00072  
.00004  
.00038

ALPHA0  
8.00000  
10.00000  
1.00000

DZ = 50.000  
ALPHAC  
2.000  
4.000  
GRADIENT

DCD  
-.01907  
-.00341  
-.00437  
-.00749  
-.00044

DCL  
-.03799  
-.00946

DCLM  
.00662  
.00166  
.00228  
.00031

DCY  
.00166  
.00228  
.00031

DCYN  
-.00018  
-.00013  
.00003

DCBL  
-.00071  
-.00019  
.00026

ALPHA0  
8.00000  
10.00000  
1.00000

ARC 14-120(CA23B) 747/1 AT1 02S1 (ORBITER DATA)

(4NHY10) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
LREF = 474.8100 IN. YMRP = .0000 IN. YO  
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0125

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
ALPHAC  
2.000  
4.000  
GRADIENT

DCD  
-.05596  
-.01008  
-.02327  
-.00659

DCL  
-.05596  
-.01008  
-.02327  
-.00659

DCLM  
.01194  
.00158  
.00229  
.00036

DCY  
.00158  
.00229  
.00036

DCYN  
-.00025  
-.00042  
-.00008

DCBL  
.00085  
.00065  
-.00010

ALPHA0  
10.00000  
12.00000  
1.00000

DZ = 7.500  
ALPHAC  
2.000  
4.000  
GRADIENT

DCD  
-.05299  
-.00939  
-.02958  
-.00559

DCL  
-.05299  
-.00939  
-.02958  
-.00559

DCLM  
.01037  
.00142  
.00196  
.00027

DCY  
.00142  
.00196  
.00027

DCYN  
-.00026  
-.00061  
-.00018

DCBL  
.00093  
.00053  
-.00020

ALPHA0  
10.00000  
12.00000  
1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
TORB = 6.000 DX = .000  
DY = .000 MACH = .600

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
RUDDER = .000 ELEVON = .000  
TORB = 8.000 DX = .000  
DY = .000 MACH = .600



ARC 14-120(CA23B) 747/1 AT1 0251 (ORBITER DATA)

(UNRAY13) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = 1.500

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500

ALPHAC 2.000 ALPHA  
 4.000  
 GRADIENT

DCD -.00890 DCY .00123 DCYN .00019  
 DCL -.05878 DCLM .01274 DCLN .00019  
 -.10819 -.01614 .00023 .00001  
 -.02471 -.00389 .00173 -.00050 -.00009

DCBL .00102 ALPHA  
 .00087 8.00000  
 .00115 10.00000  
 .00014 1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500

ALPHAC 2.000 ALPHA  
 4.000  
 GRADIENT

DCD -.00850 DCY .00035 DCYN .00013  
 DCL -.05758 DCLM .01019 DCY .00035  
 -.10112 -.01325 .00010 .00000  
 -.02177 -.00341 .00153 -.00022 -.00007

DCBL .00087 ALPHA  
 .00115 10.00000  
 .00014 1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000

ALPHAC 2.000 ALPHA  
 4.000  
 GRADIENT

DCD -.00836 DCY .00026 DCYN .00003  
 DCL -.05623 DCLM .00962 DCY .00026  
 -.09876 -.01485 .01252 .00000  
 -.02126 -.00325 .00145 .00013 -.00004

DCBL .00074 ALPHA  
 .00100 10.00000  
 .00013 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000

ALPHAC 2.000 ALPHA  
 4.000  
 GRADIENT

DCD -.00707 DCY .00054 DCYN .00002  
 DCL -.05394 DCLM .00805 DCY .00054  
 -.09436 -.01332 .01095 .00011  
 -.02021 -.00313 .00145 .00017 -.00004

DCBL .00070 ALPHA  
 .00092 10.00000  
 .00011 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000

ALPHAC 2.000 ALPHA  
 4.000  
 GRADIENT

DCD -.00497 DCY .00052 DCYN .00010  
 DCL -.04032 DCLM .00577 DCY .00052  
 -.07330 -.00927 .00893 .00076  
 -.01649 -.00215 .00108 .00064 .00002

DCBL .00039 ALPHA  
 .00068 10.00000  
 .00015 1.00000

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .0125 MACH = .600

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ = 45.000  
 ALPHAC = 2.000  
 4.000  
 GRADIENT = .01365  
 DCL = .02973 DCD = .00368 DCY = .00004 DCYN = .00003  
 -.05703 -.00620 .00732 -.00018 DCBL = .00040 ALPHAO = 8.00000  
 -.01365 -.00126 .00066 -.00008 DCBL = .00056 10.00000  
 .00008 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ = 50.000  
 ALPHAC = 2.000  
 4.000  
 GRADIENT = .01157  
 DCL = .02705 DCD = .00277 DCY = .00010 DCYN = .00003  
 -.05018 -.00484 .00667 -.00016 DCBL = .00057 ALPHAO = 8.00000  
 -.01157 -.00104 .00063 -.00009 DCBL = .00069 10.00000  
 .00006 1.00000

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO TORB = 6.000 DX = .000  
 SCALE = .0125 GRADIENT = .0125 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ = 3.500  
 ALPHAC = 2.000  
 4.000  
 GRADIENT = .02484  
 DCL = .05330 DCD = .00980 DCY = .00152 DCYN = .00116  
 -.10297 -.01675 .01670 -.00074 -.00165 DCBL = .00430 ALPHAO = 8.00000  
 -.02484 -.00348 .00215 -.00024 -.00125 DCBL = .00125 1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00  
 DZ = 7.500  
 ALPHAC = 2.000  
 4.000  
 GRADIENT = .09333  
 DCL = .04861 DCD = .00818 DCY = .00016 DCYN = .00102  
 -.09333 -.01465 .01303 -.00109 -.00135 DCBL = .00307 ALPHAO = 8.00000  
 -.02236 -.00324 .00143 -.00047 -.00017 DCBL = .00081 1.00000

PARAMETRIC DATA

(4NHY18) ( 17 OCT 75 )

PARAMETRIC DATA

(4NHY13) ( 17 OCT 75 )

ARC 14-120(CA238) 747/1 AT1 0251 (ORBITER DATA)

(4NNHY18) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = 5.000  
 LORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

PARAMETRIC DATA

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.04836  
 -.01360  
 -.00290

DCLM  
 .00931  
 .01216  
 .0143

DCY  
 .00028  
 -.00111  
 -.00059

DCYD  
 .00080  
 -.00136  
 -.00028

DCBL  
 -.00148  
 -.00269  
 -.00061

ALPHAO  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.04619  
 -.01209  
 -.00250

DCLM  
 .00829  
 .01098  
 .00134

DCY  
 -.00011  
 -.00107  
 -.00040

DCYD  
 -.00067  
 -.00105  
 -.00019

DCBL  
 -.00140  
 -.00195  
 -.00028

ALPHAO  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.03742  
 -.00781  
 -.00155

DCLM  
 .00605  
 .00801  
 .00098

DCY  
 -.00024  
 -.00045  
 -.00010

DCYD  
 -.00034  
 -.00068  
 -.00017

DCBL  
 -.00071  
 -.00097  
 -.00013

ALPHAO  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.02352  
 -.04797  
 -.01222

DCLM  
 .00522  
 .00657  
 .00067

DCY  
 .00039  
 .00044  
 .00002

DCYD  
 -.00017  
 -.00031  
 -.00017

DCBL  
 -.00037  
 -.00055  
 -.00009

ALPHAO  
 8.00000  
 10.00000  
 1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCD  
 -.02311  
 -.04420  
 -.01055

DCLM  
 .00470  
 .00603  
 .00065

DCY  
 .00084  
 .00052  
 -.00016

DCYD  
 -.00010  
 -.00052  
 -.00021

DCBL  
 -.00016  
 -.00042  
 -.00013

ALPHAO  
 8.00000  
 10.00000  
 1.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = 5.000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO LORB = 8.000 DX = .000  
 SCALE = .0125 GRADIENT = -.01896 -.00404 .00227 -.00142 .00016 .00016 DY = 10.000 MACH = .600

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
3.500	2.000	-.05218	-.01392	.01293	.00060	-.00173	-.00235	10.00000
	4.000	-.09010	-.02199	.01747	-.00223	-.00141	-.00558	12.00000
GRADIENT		-.01896	-.00404	.00227	-.00142	.00016	-.00162	1.00000

RN/L = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
7.500	2.000	-.04884	-.01090	.01136	.00063	-.00138	-.00176	10.00000
	4.000	-.08693	-.02074	.01524	-.00161	-.00136	-.00431	12.00000
GRADIENT		-.01905	-.00492	.00194	-.00112	.00001	-.00127	1.00000

RN/L = 3.33 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
10.000	2.000	-.04493	-.00680	.01028	.00062	-.00116	-.00147	10.00000
	4.000	-.08455	-.02014	.01367	-.00110	-.00135	-.00343	12.00000
GRADIENT		-.01981	-.00567	.00170	-.00066	-.00010	-.00098	1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
15.000	2.000	-.04849	-.00757	.00849	-.00006	-.00084	-.00070	10.00000
	4.000	-.08195	-.01761	.01159	-.00070	-.00118	-.00233	12.00000
GRADIENT		-.01673	-.00502	.00175	-.00032	-.00017	-.00081	1.00000

RN/L = 3.35 GRADIENT INTERVAL = -5.00/ 5.00

DZ	ALPHAC	DCL	DCD	DCLM	DCY	DCYN	DCBL	ALPHAO
30.000	2.000	-.03771	-.00473	.00649	.00039	-.00260	-.00011	10.00000
	4.000	-.05256	-.01052	.00891	-.00095	-.00110	-.00100	12.00000
GRADIENT		-.01143	-.00294	.00121	-.00067	-.00025	-.00045	1.00000

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REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.04651  
 -.08733  
 -.02041  
 -.00658

DCD  
 -.00691  
 -.02008  
 -.00658

DCLM  
 .01029  
 .01571  
 .00271

DCY  
 .00132  
 .00235  
 .00082

DCYN  
 .00062  
 .00003  
 -.00029

DCBL  
 .00073  
 .00025  
 -.00024

ALPHA0  
 10.00000  
 12.00000  
 1.00000

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.04708  
 -.08157  
 -.01725

DCD  
 -.00745  
 -.01882  
 -.00359

DCLM  
 .00928  
 .01445  
 .00259

DCY  
 .00228  
 .00446  
 .00109

DCYN  
 .00007  
 -.00041  
 -.00024

DCBL  
 .00027  
 .00018  
 -.00004

ALPHA0  
 10.00000  
 12.00000  
 1.00000

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.03604  
 -.06040  
 -.01218

DCD  
 -.00454  
 -.01351  
 -.00454

DCLM  
 .00604  
 .01151  
 .00274

DCY  
 .00199  
 .00363  
 .00082

DCYN  
 .00006  
 -.00026  
 -.00016

DCBL  
 .00024  
 .00012  
 -.00006

ALPHA0  
 10.00000  
 12.00000  
 1.00000

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.02089  
 -.04165  
 -.01038

DCD  
 -.00261  
 .00972  
 -.00355

DCLM  
 .00591  
 .01051  
 .00230

DCY  
 .00215  
 .00256  
 .00020

DCYN  
 .00007  
 .00021  
 .00007

DCBL  
 .00018  
 .00037  
 .00027

ALPHA0  
 10.00000  
 12.00000  
 1.00000

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01952  
 -.03641  
 -.00945

DCD  
 -.00237  
 .00843  
 -.00303

DCLM  
 .00495  
 .01026  
 .00265

DCY  
 .00232  
 .00224  
 -.00004

DCYN  
 .00007  
 .00033  
 .00013

DCBL  
 -.00014  
 .00053  
 .00033

ALPHA0  
 10.00000  
 12.00000  
 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = .000 MACH = .600

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ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

(4NHV32) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 IORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCBL  
 -.00148  
 -.00368  
 -.00110

DCY  
 .00108  
 .00131  
 .00011

DCLM  
 .01349  
 .01577  
 .00114

DCD  
 -.00883  
 -.01462  
 -.00289

DCY  
 .00068  
 .00006  
 -.00031

DCBL  
 -.00153  
 -.00275  
 -.00061

DCYN  
 -.00120  
 -.00157  
 -.00018

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCBL  
 -.00153  
 -.00275  
 -.00061

DCY  
 .00068  
 .00006  
 -.00031

DCLM  
 .00930  
 .01109  
 .00089

DCD  
 -.00774  
 -.01317  
 -.00272

DCY  
 .00068  
 .00006  
 -.00031

DCBL  
 -.00153  
 -.00275  
 -.00061

DCYN  
 -.00083  
 -.00107  
 -.00012

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCBL  
 -.00129  
 -.00250  
 -.00061

DCY  
 .00096  
 -.00027  
 -.00062

DCLM  
 .00823  
 .01019  
 .00098

DCD  
 -.00735  
 -.01267  
 -.00266

DCY  
 .00096  
 -.00027  
 -.00062

DCBL  
 -.00129  
 -.00250  
 -.00061

DCYN  
 -.00067  
 -.00121  
 -.00027

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCBL  
 -.00125  
 -.00229  
 -.00052

DCY  
 .00090  
 -.00027  
 -.00058

DCLM  
 .00699  
 .00960  
 .00131

DCD  
 -.00686  
 -.01152  
 -.00233

DCY  
 .00090  
 -.00027  
 -.00058

DCBL  
 -.00125  
 -.00229  
 -.00052

DCYN  
 -.00058  
 -.00115  
 -.00029

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCBL  
 -.00089  
 -.00122  
 -.00017

DCY  
 .00101  
 .00038  
 -.00031

DCLM  
 .00536  
 .00797  
 .00131

DCD  
 -.00432  
 -.00707  
 -.00137

DCY  
 .00101  
 .00038  
 -.00031

DCBL  
 -.00089  
 -.00122  
 -.00017

DCYN  
 -.00017  
 -.00051  
 -.00017

ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITTER DATA) (4NH32) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCY DCYM DCBL ALPHAO  
 -.02312 -.00307 .00019 -.00026  
 -.04632 -.00434 .00028 -.00037  
 -.01160 -.00078 .00005 -.00005

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCY DCYM DCBL ALPHAO  
 -.01875 -.00254 .00035 -.00020  
 -.03838 -.00368 .00044 -.00028  
 -.00981 -.00057 .00004 -.00004

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCY DCYM DCBL ALPHAO  
 -.05096 -.01369 .00056 -.00093  
 -.09671 -.02532 .00100 -.00146  
 -.02288 -.00582 .00022 -.00026

DZ = 7.500  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL DCD DCY DCYM DCBL ALPHAO  
 -.04894 -.01028 .00011 -.00077  
 -.03240 -.02358 .00044 -.00140  
 -.02173 -.00665 .00333 -.00031

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = 10.000 MACH = .600

DCBL ALPHAO  
 -.00069 8.00000  
 -.00067 10.00000  
 .00001 1.00000

DCBL ALPHAO  
 -.00087 8.00000  
 -.00056 10.00000  
 .00015 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 8.000 DX = .000  
 DY = 10.000 MACH = .600

DCBL ALPHAO  
 -.00249 10.00000  
 -.00560 12.00000  
 -.00155 1.00000

DCBL ALPHAO  
 -.00190 10.00000  
 -.00452 12.00000  
 -.00131 1.00000

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ARC 14-120(CA23B) 747/1 AT1 03S1 (ORBITER DATA)

(4NHY33) ( 17 OCT )

REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8100 IN.  
 BREF = 936.6800 IN.  
 SCALE = .0125

XMRP = 1109.0000 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA

BETA = .000 STAB =  
 RUDDER = .000 ELEVON =  
 IORB = 8.000 DX =  
 DY = 10.000 MACH =

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL = -0.4674 DCO = -0.0793 DCLM = .01050 DCY = .00039 DCYN = -0.0063 DCBL = -0.0154 ALPHAO = 10.00000  
 DCL = -0.08918 DCO = -0.02231 DCLM = .01740 DCY = -0.00006 DCYN = -0.0133 DCBL = -0.00368 ALPHAO = 12.00000  
 DCL = -0.02122 DCO = -0.00719 DCLM = .00345 DCY = -0.00022 DCYN = -0.00035 DCBL = -0.00107 ALPHAO = 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL = -0.4757 DCO = -0.0742 DCLM = .00908 DCY = .00084 DCYN = -0.00054 DCBL = -0.0134 ALPHAO = 10.00000  
 DCL = -0.08444 DCO = -0.02067 DCLM = .01559 DCY = .00049 DCYN = -0.0132 DCBL = -0.00302 ALPHAO = 12.00000  
 DCL = -0.01844 DCO = -0.00662 DCLM = .00326 DCY = -0.00018 DCYN = -0.00039 DCBL = -0.00084 ALPHAO = 1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL = -0.3432 DCO = -0.0457 DCLM = .00787 DCY = .00121 DCYN = -0.00023 DCBL = -0.00052 ALPHAO = 10.00000  
 DCL = -0.05625 DCO = -0.01370 DCLM = .01324 DCY = .00116 DCYN = -0.0104 DCBL = -0.00093 ALPHAO = 12.00000  
 DCL = -0.01037 DCO = -0.00456 DCLM = .00269 DCY = -0.00003 DCYN = -0.00040 DCBL = -0.00021 ALPHAO = 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL = -0.1984 DCO = -0.0240 DCLM = .00694 DCY = .00109 DCYN = -0.00042 DCBL = -0.00034 ALPHAO = 10.00000  
 DCL = -0.04163 DCO = -0.01026 DCLM = .01217 DCY = .00134 DCYN = -0.00027 DCBL = -0.00049 ALPHAO = 12.00000  
 DCL = -0.01090 DCO = -0.00393 DCLM = .00261 DCY = .00012 DCYN = -0.00007 DCBL = -0.00007 ALPHAO = 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL = -0.1861 DCO = -0.00293 DCLM = .00651 DCY = .00135 DCYN = -0.00024 DCBL = -0.00030 ALPHAO = 10.00000  
 DCL = -0.03856 DCO = -0.00975 DCLM = .01158 DCY = .00137 DCYN = -0.00006 DCBL = -0.00026 ALPHAO = 12.00000  
 DCL = -0.00998 DCO = -0.00361 DCLM = .00254 DCY = .00001 DCYN = -0.00015 DCBL = -0.00002 ALPHAO = 1.00000

(4NHV34) ( 17 OCT 75 )

ARC 14-120(CA23B) 747/1 AT1 0351 (ORBITER DATA)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1109.0000 IN. XO BETA = .000 STAB = 5.000  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO RUDDER = .000 ELEVON = .000  
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO DY = .000 DX = .000  
 SCALE = .0125 GRADIENT = -.00289 .00099 MACH = .600

PARAMETRIC DATA

RN/L = 3.31 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 3.500 ALPHAAC = 2.000  
 DCL = -.05437 DCD = -.09879 DCLM = .01688 DCY = .00363 DCYN = .00019 DCBL = .00015 ALPHAO = 8.00000  
 GRADIENT = -.02335 .00099 .00012 .00020 .00003 10.00000 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 7.500 ALPHAAC = 2.000  
 DCL = -.05156 DCD = -.0814 DCLM = .01236 DCY = .00309 DCYN = -.00007 DCBL = .00002 ALPHAO = 8.00000  
 GRADIENT = -.09385 .01351 .01450 .00288 .00015 10.00000 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 10.000 ALPHAAC = 2.000  
 DCL = -.05304 DCD = -.00779 DCLM = .01009 DCY = .00301 DCYN = -.00004 DCBL = .00002 ALPHAO = 8.00000  
 GRADIENT = -.09063 .01294 .01297 .00273 .00015 10.00000 1.00000

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 15.000 ALPHAAC = 2.000  
 DCL = -.05072 DCD = -.00725 DCLM = .00720 DCY = .00301 DCYN = -.00015 DCBL = .00002 ALPHAO = 8.00000  
 GRADIENT = -.08597 .01175 .01025 .00271 .00015 10.00000 1.00000

RN/L = 3.29 GRADIENT INTERVAL = -5.00/ 5.00

DZ = 30.000 ALPHAAC = 2.000  
 DCL = -.03742 DCD = -.00489 DCLM = .00539 DCY = .00301 DCYN = -.00000 DCBL = .00002 ALPHAO = 8.00000  
 GRADIENT = -.06343 .00778 .00950 .00225 .00012 10.00000 1.00000

ARC 14-120(CA23B) 747/1 AT 0351 (ORBITTER DATA)

(4NH334) ( 17 OCT 75 )

REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1109.0000 IN. XO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BRP = 936.6800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0125

RN/L = 3.30 GRADIENT INTERVAL = -5.00/ 5.00

OZ = 45.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.02417  
 -.04343  
 -.00963

DCD  
 -.00360  
 -.00513  
 -.00077

DCLM  
 .00643  
 .00762  
 .00059

DCY  
 .00190  
 .00194  
 .00002

DCYN  
 -.00027  
 -.00026  
 .00001

DCBL  
 -.00073  
 .00003  
 .00038

ALPHA0  
 8.00000  
 10.00000  
 1.00000

OZ = 50.000  
 ALPHAC  
 2.000  
 4.000  
 GRADIENT

DCL  
 -.01906  
 -.03799  
 -.00947

DCD  
 -.00342  
 -.00439  
 -.00048

DCLM  
 .00667  
 .00756  
 .00045

DCY  
 .00167  
 .00229  
 .00031

DCYN  
 -.00019  
 -.00013  
 .00003

DCBL  
 -.00071  
 -.00019  
 .00026

ALPHA0  
 8.00000  
 10.00000  
 1.00000

PARAMETRIC DATA

BETA = .000 STAB = 5.000  
 RUDDER = .000 ELEVON = .000  
 TORB = 6.000 DX = .000  
 DY = .000 MACH = .600