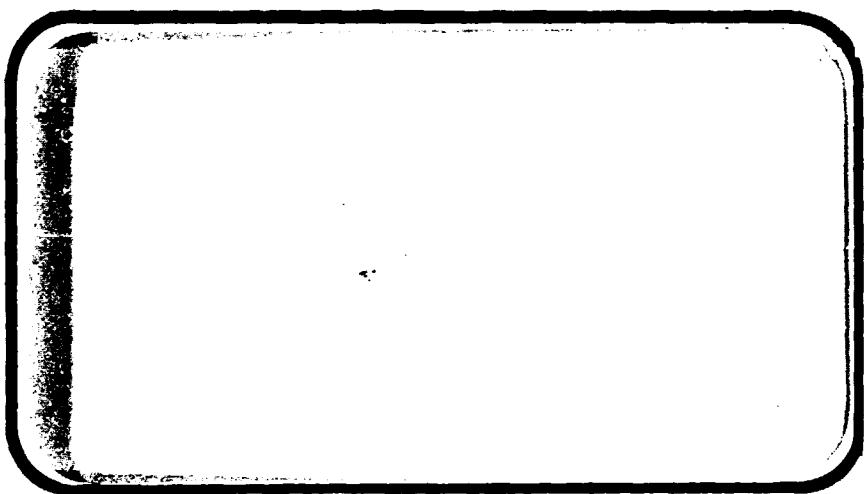


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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION



NASA-CR-128783) HYPERSONIC PERFORMANCE,
STABILITY AND CONTROL CHARACTERISTICS OF
A .0075 SCALE MODEL ROCKWELL
INTERNATIONAL 089B-139B ORBITER (Chrysler
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AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION

 CHRYSLER
CORPORATION

October, 1973

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NASA-CR-128,783

HYPersonic PERFORMANCE, STABILITY AND CONTROL
CHARACTERISTICS OF A .0075 SCALE MODEL ROCKWELL
INTERNATIONAL 089B-139B ORBITER CONFIGURATION

By

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Prepared under NASA Contract Number NAS-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: LaRC CFHT 96
NASA Series No.: LA-11
Date: July 11-20, 1973; 40 Occ. Hr.

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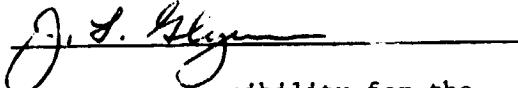
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This document has been reviewed and is approved for release.

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HYPersonic PERFORMANCE, STABILITY AND CONTROL CHARACTERISTICS
OF A .0075 SCALE MODEL ROCKWELL INTERNATIONAL 089B-139B
ORBITER CONFIGURATION

By

R. W. Powell &
T. A. Blackstock

SUMMARY

An investigation was made in the Langley Continuous Flow Hypersonic Tunnel at a Mach Number of 10.3 to study the hypersonic aerodynamic characteristics of a Rockwell International shuttle orbiter configuration. Tests were made at a Reynolds number of $.79 \times 10^6$ based on body length with an angle-of-attack range of 10° to 35° and sideslip variations of $+1^\circ$ to -9° . The effects of elevon and body flap deflection were investigated.

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INDEX OF DATA FIGURES

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Effect of Aileron Deflection on Basic Longitudinal Characteristics	A	AIRRON	6-9
Effect of Aileron Deflection on Lateral-Directional Derivatives	B	AIRRON	10
Effect of Body Flap Deflection on Basic Longitudinal Characteristics	A	BDFLAP	11-14
Comparison of Aileron Derivatives for Opposite Control Deflection	C	DLTALN	15-16
Basic Aerodynamic Characteristics in Sideslip	D	ALPHA	
($\delta_e = -10^\circ, \delta_a = 0^\circ$)			17-18
($\delta_e = -20^\circ, \delta_a = 0^\circ$)			19-20
($\delta_e = -40^\circ, \delta_a = 0^\circ$)			21-22
($\delta_e = +10^\circ, \delta_a = 0^\circ$)			23-24
($\delta_e = -10^\circ, \delta_a = 10^\circ$)			25-26
($\delta_e = -10^\circ, \delta_a = -10^\circ$)			27-28
($\delta_e = -30^\circ, \delta_a = -10^\circ$)			29-30
($\delta_e = -30^\circ, \delta_a = +10^\circ$)			31-32

INDEX OF DATA FIGURES (CONTINUED)

TITLE	SCHEDULE OF COEFFICIENTS PLOTTED		CONDITIONS VARYING	PAGES
	D	ELEVTR		
Effect of Control Deflections in Sideslip				
($\alpha = 10^\circ$)				33-34
($\alpha = 15^\circ$)				35-36
($\alpha = 20^\circ$)				37-38
($\alpha = 25^\circ$)				39-40
($\alpha = 30^\circ$)				41-42
($\alpha = 35^\circ$)				43-44

SCHEDULE OF COEFFICIENTS PLOTTED:

- A) CN, CL, CIM, L/D, CA, CD vs. ALPHA
CN, CL vs. CIM; CD vs. CL
- B) DCY/DB, DCY/DA, DCBLDB vs. ALPHA
- C) DCY/DA, DCY/ND, DCBLDA vs. ALPHA
- D) CN, CA, CIM, CY, CYN, CBL vs. BETA

NOMENCLATURE
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C _p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

A _b		base area; m ² , ft ²
b	E _{REF}	wing span or reference span; m, ft
c.g.		center of gravity
L _{REF}	L _{REF}	reference length or wing mean aerodynamic chord; m, ft
c		
S	S _{REF}	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	X _{MRP}	moment reference point on X axis
	Y _{MRP}	moment reference point on Y axis
	Z _{MRP}	moment reference point on Z axis

SUBSCRIPTS

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

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS_l \text{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$
<u>Stability-Axis System</u>		
C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS_l \text{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
C_l	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D

NOMENCLATURE (Concluded)

ADDITIONS TO STANDARD LIST

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$C_Y\beta$	DCY/DB	side force coefficient derivative with sideslip angle, $\partial C_Y / \partial \beta$, per degree
$C_n\beta$	DCYNDB	yawing moment coefficient derivative with sideslip angle, $\partial C_n / \partial \beta$, per degree
$C_l\beta$	DCBLDB	rolling moment coefficient derivative with sideslip angle, $\partial C_l / \partial \beta$, per degree
$C_Y\delta_a$	DCY/DA	side force coefficient derivative with aileron deflection, $\partial C_Y / \partial \delta_a$, per degree
$C_n\delta_a$	DCYNDA	yawing moment coefficient derivative with aileron deflection, $\partial C_n / \partial \delta_a$, per degree
$C_l\delta_a$	DCBLDA	rolling moment coefficient derivative with aileron deflection, $\partial C_l / \partial \delta_a$, per degree
δ_{eL}	-	left elevon deflection, trailing edge down positive
δ_{eR}	-	right elevon deflection, trailing edge down positive
δ_a	AILRON	elevon deflection for roll control $[(\delta_{eL} - \delta_{eR})/2]$, degrees
δ_e	ELEVTR	elevon deflection for pitch control, $[(\delta_{eL} + \delta_{eR})/2]$, degrees
δ_{BF}	BDFLAP	body flap deflection, trailing edge down positive, degrees

TEST FACILITY DESCRIPTION

The Mach 10 nozzle of the Langley continuous flow hypersonic tunnel is designed to operate at stagnation pressures of 15 to 150 atmospheres at temperatures up to 1960°R. Air is preheated electrically by passing through a multi-tube heater. The nozzle has a 31-inch square test section which incorporates a moveable second minimum. Continuous operation is achieved by passing the air through a series of compressors. Additional information on this facility is given in NASA TM X-1130 - "titled, "Characteristics of Major Active Wind Tunnels at the Langley Research Center," by William T. Schaefer, Jr.

CONFIGURATION INVESTIGATED

The configuration tested was a 0.0075 scale model of a blend of Rockwell International shuttle configurations. The model consisted of a 089B configuration with a 139B configuration nose forward of F.S. 500. A sketch of the model is shown in figure 2. All of the tests were made with the rudder flared to form a 10° wedge vertical tail. Tests were made with elevon deflections ranging from +10° to -40° and body flap deflections of 0° and -14.25°.

DATA REDUCTION

A LaRC 2019A six-component strain gage balance was used to measure orbiter aerodynamic forces and moments. All data are presented about a

center of gravity located at 65 percent of the body length. Data were converted to standard NASA coefficients using the following constants:

Reference area, S_{ref} = wing planform area = 21.7886 sq. in.

Reference length, \bar{c} = wing mean aerodynamic chord = 3.561 in.

Reference span, b_{ref} = wing span = 7.025 in.

TABLE I. TEST CONDITIONS

TEST : CFHT 96		DATE : July 1973	
TEST CONDITIONS			
MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
10.3	.95 x 10 ⁶	1.05	1380
BALANCE UTILIZED: <u>LaRC 2019A</u>			
	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	<u>70 lbs</u>	<u>.35</u>	<u>.015</u>
SF	<u>25 lbs</u>	<u>.125</u>	<u>.005</u>
AF	<u>15 lbs</u>	<u>.075</u>	<u>.003</u>
PM	<u>70 In-lbs</u>	<u>.35</u>	<u>.004</u>
RM	<u>25 In-lbs</u>	<u>.125</u>	<u>.0008</u>
YM	<u>15 In-lbs</u>	<u>.075</u>	<u>.0005</u>
COMMENTS:			

TEST : LARC CFHT 96

TABLE II.
DATA SET/RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCHD.	PARAMETERS/VALUES			NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)		
			α	β	SEL. SCHED. SGP		10.3	10.4	10.5
RPD001	ROCKWELL Q2B 089B	A	0	0	-14.25	4			
\overline{T}	W/HOD. NOSE	A	-5	T	T	5			
03		10	B				11		
04		15	T				10		
05		20					9		
06		25					8		
07		30					7		
08		35					6		
09		A	0	-10	-10		12		
10		A	-5	T	-T		13		
11		10	B				21		
12		15	T				20		
13		20					19		
14		25					18		
15		30					17		
16		35					15		
17		A	0	-20	-20		32		
18		A	-5	-20	-20		33		
								75	76
								67	
								61	
								49	
								37	
								31	
								43	
								55	
								11	
								19	
								25	
								13	
								7	

COEFFICIENTS

IDVAR(11) IDVAR(2)

NOV

A) $10^\circ \rightarrow 35^\circ$

B) $-9^\circ \rightarrow 1^\circ$

α OR β
SCHEDULES

TEST: LARC CFHT 96

TABLE II. - (CONTINUED)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE :

DATA SET IDENTIFIER	CONFIGURATION	TEST RUN NUMBERS						NO. OF MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)	
		SCHD.	PARAMETERS/VALUES	α	β	δ_{el}	δ_{er}	δ_{bf}	
R PDO 19	ROCKWELL ORB 089B	10	B	-20	-20	14.5			39
T 20	W/NOSE	15	T	T	T	T			38
21		20							37
22		25							36
23		30							35
24		35							34
25		A	0	-40	-40				62
26		A	-5	T	T				63
27		10	B						69
28		15	T						68
29		20							67
30		25							66
31		30							65
32		35							64
33		A	0	10	10				78
34		A	-5	T	T				79
35		35	B						85
36		30	B						84
		7		13	19	25	31	37	43
									49
									55
									61
									67
									75
									76

 α OR β
SCHEDULES

COEFFICIENTS

IDVAR (1)

IDVAR (2)

NOV

TABLE II. - (CONTINUED)

TEST: LARC CFHT .96

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE :

TEST RUN NUMBERS		MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)					
DATA SET IDENTIFIER	CONFIGURATION	SCHD.	PARAMETERS/VALUES	NO. OF RUNS	10.3		
		α	β	δ_{EF}	δ_{EF}		
R PDO37	REEDWELL DRB. 089B	25	B	10	10	4.25	83
38	W/MOD. NOSE	20	T	-	-	T	82
39		15					81
40		10	↑	↑			80
41		A	O	O	-20		24
42		A	-5	T	T		25
43		10	B				31
44		15	T				30
45		20					29
46		25					28
47		30					27
48		35	↓	↑			26
49		A	O	-20	O		41
50		A	-5	T	T		42
51		10	B				48
52		15	T				47
53		20					46
54		25	↑				45
							75 76
							67
							61
							55
							49
							43
							31
							19
							25
							13
							7

 α OR β
SCHEDULES

COEFFICIENTS

IDVAR (1) IDVAR (2) NDV

TABLE II. - (CONTINUED)

TEST: LARC CFHT 96 DATA SET/RUN NUMBER COLLATION SUMMARY

DATE:

DATA SET IDENTIFIER	CONFIGURATION	TEST RUN NUMBERS						NO. MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)
		SCMD.	PARAMETERS/VALUES	NO. OF RUNS	10.3	10.3	10.3	
RPD055	ROCKWELL 02B.0898	30 B	-20 O -4.25	—	44			
56	W/ MOD. NOSE	35 B	-20 O —	—	43			
57	—	A O	-40 -20	—	54			
58		A	-5 T T	—	55			
59		10 B	—	—	61			
60		15 T	—	—	60			
61		20	—	—	59			
62		25	—	—	58			
63		30	—	—	57			
64		35	—	—	56			
65		A O	-20 -40	—	70			
66		A	-5 T —	—	71			
67		35 B	—	—	77			
68		30 T	—	—	76			
69		25	—	—	75			
70		20	—	—	74			
71		15	—	—	73			
72		10	—	—	72			
						67	67	75 76
								IDVAR (1) IDVAR (2) NOV
								COEFFICIENTS
								SCHEDULES
								α OR β

TABLE III.
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - 089B-139B (Modified Nose)

GENERAL DESCRIPTION : Nose section from full-scale station 238.0 to STA. 500 from NAR drawing VL70-000139B. Remaining body AFT of STA 500 from NAR drawing VL70-000093

Scale Model = .0075

DRAWING NUMBER : VL70-000093

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>1290.3</u>	<u>9.677</u>
Max Width	<u>265.0</u>	<u>1.988</u>
Max Depth	<u>248.0</u>	<u>1.860</u>
Fineness Ratio	<u>4.869</u>	<u>4.869</u>
Area	<u></u>	<u></u>
Max. Cross-Sectional	<u>456.40</u>	<u>.02567</u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>

TABLE III. MODEL COMPONENT DIMENSIONAL DATA (CONTINUED)

MODEL COMPONENT: ELEVONGENERAL DESCRIPTION: CONFIGURATION PER LINES VL70-000093DATA FOR (1) OF (2) SIDESMODEL SCALE = .0075DRAWING NUMBER: VL70-000093DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>205.517</u>	<u>.0116</u>
Span (equivalent)	<u>353.34</u>	<u>2.650</u>
Inb'd equivalent chord	<u>114.78</u>	<u>.861</u>
Outb'd equivalent chord	<u>55.00</u>	<u>.413</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>.208</u>	<u>.208</u>
At Outb'd equiv. chord	<u>.400</u>	<u>.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Trailing Edge	<u>-10.02</u>	<u>-10.02</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line)-ft ³	<u>1548.07</u>	<u>.000653</u>

TABLE III. MODEL COMPONENT DIMENSIONAL DATA (CONTINUED)

MODEL COMPONENT: WING

GENERAL DESCRIPTION: Orbiter Configuration per Lines VL70-000093.

NOTE: (Dihedral angle is defined at the lower surface of the wing at the
75.33% element line projected into a plane perpendicular to the FRL).

SCALE MODEL = .0075

DRAWING NUMBER: VL70-000093

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area		
Planform	2690.00	.1513
Wetted		
Span (equivalent)	936.68	7.025
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	3.000	3.000
Aerodynamic Twist, degrees	+3.000	+3.000
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	-10.24	-10.24
0.25 Element Line	35.209	35.209
Chords:		
Root (Wing Sta. 0.0)	689.24	5.169
Tip, (equivalent)	137.85	1.034
MAC	474.81	3.561
Fus. Sta. of .25 MAC	1136.89	8.527
W.P. of .25 MAC	299.20	2.244
B.L. of .25 MAC	182.13	1.366
Airfoil Section		
Root		
Tip		
<u>EXPOSED DATA</u>		
Area	1752.29	.0986
Span, (equivalent)	720.68	5.405
Aspect Ratio	2.058	2.058
Taper Ratio	0.2451	0.2451
Chords		
Root	562.40	4.218
Tip	137.85	1.034
MAC	393.03	2.948
Fus. Sta. of .25 MAC	1185.31	8.890
W.P. of .25 MAC	300.20	2.252
B.L. of .25 MAC	143.76	1.078

TABLE III. MODEL COMPONENT DIMENSIONAL DATA (CONTINUED)

MODEL COMPONENT: Vertical Tail

GENERAL DESCRIPTION: Centerline vertical tail double wedge airfoil with rounded leading edge.

Scale Model = .0075

DRAWING NUMBER: VL70-000095

DIMENSIONS:

Area

	FULL-SCALE	MODEL SCALE
Area	413.25	.0232

Span (equivalent)

Span (equivalent)	315.72	2.368
-------------------	--------	-------

Inb'd equivalent chord

Inb'd equivalent chord	268.50	2.014
------------------------	--------	-------

Outb'd equivalent chord

Outb'd equivalent chord	108.47	.814
-------------------------	--------	------

Ratio movable surface chord/
total surface chord

At Inb'd equiv. chord

At Inb'd equiv. chord		
-----------------------	--	--

At Outb'd equiv. chord

At Outb'd equiv. chord		
------------------------	--	--

Sweep Back Angles, degrees

Leading Edge

Leading Edge	45	45
--------------	----	----

Trailing Edge

Trailing Edge	26.249	26.249
---------------	--------	--------

Hingeline

Hingeline		
-----------	--	--

Area Moment (Normal to hinge line)

Area Moment (Normal to hinge line)		
------------------------------------	--	--

TABLE III. MODEL COMPONENT DIMENSIONAL DATA (CONCLUDED)

MODEL COMPONENT: RUDDER

GENERAL DESCRIPTION: CONFIGURATION PER LINES VL70-000095

SCALE MODEL = .0075

DRAWING NUMBER: VL70-000095

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>106.38</u>	<u>.00598</u>
Span (equivalent)	<u>201.0</u>	<u>1.508</u>
Inb'd equivalent chord	<u>91.585</u>	<u>.687</u>
Outb'd equivalent chord	<u>50.833</u>	<u>.381</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.83</u>	<u>34.83</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Normal to hinge line)-ft ³	<u>.526.125</u>	<u>.000222</u>

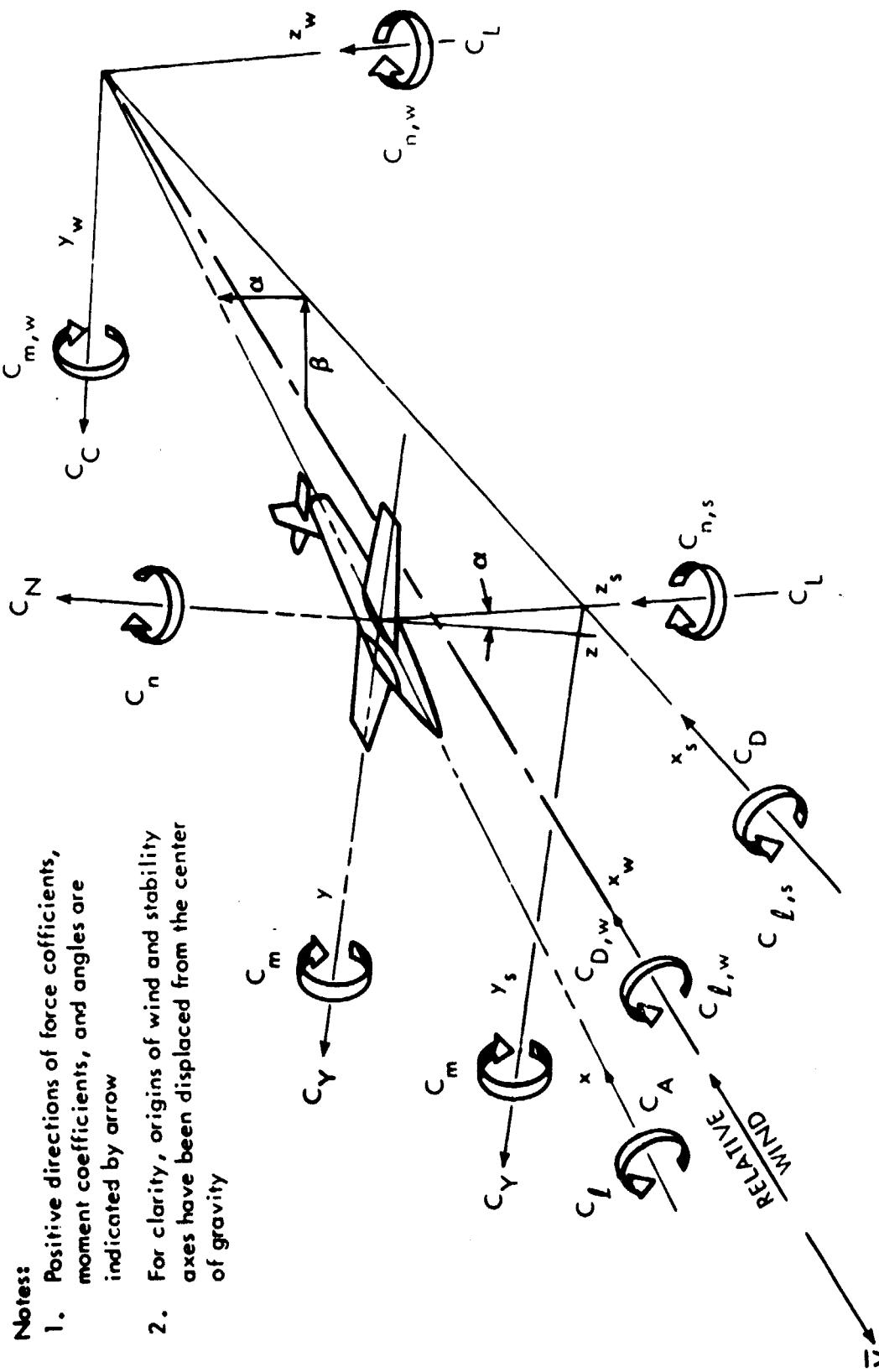


Figure 1. - ADS Systems.

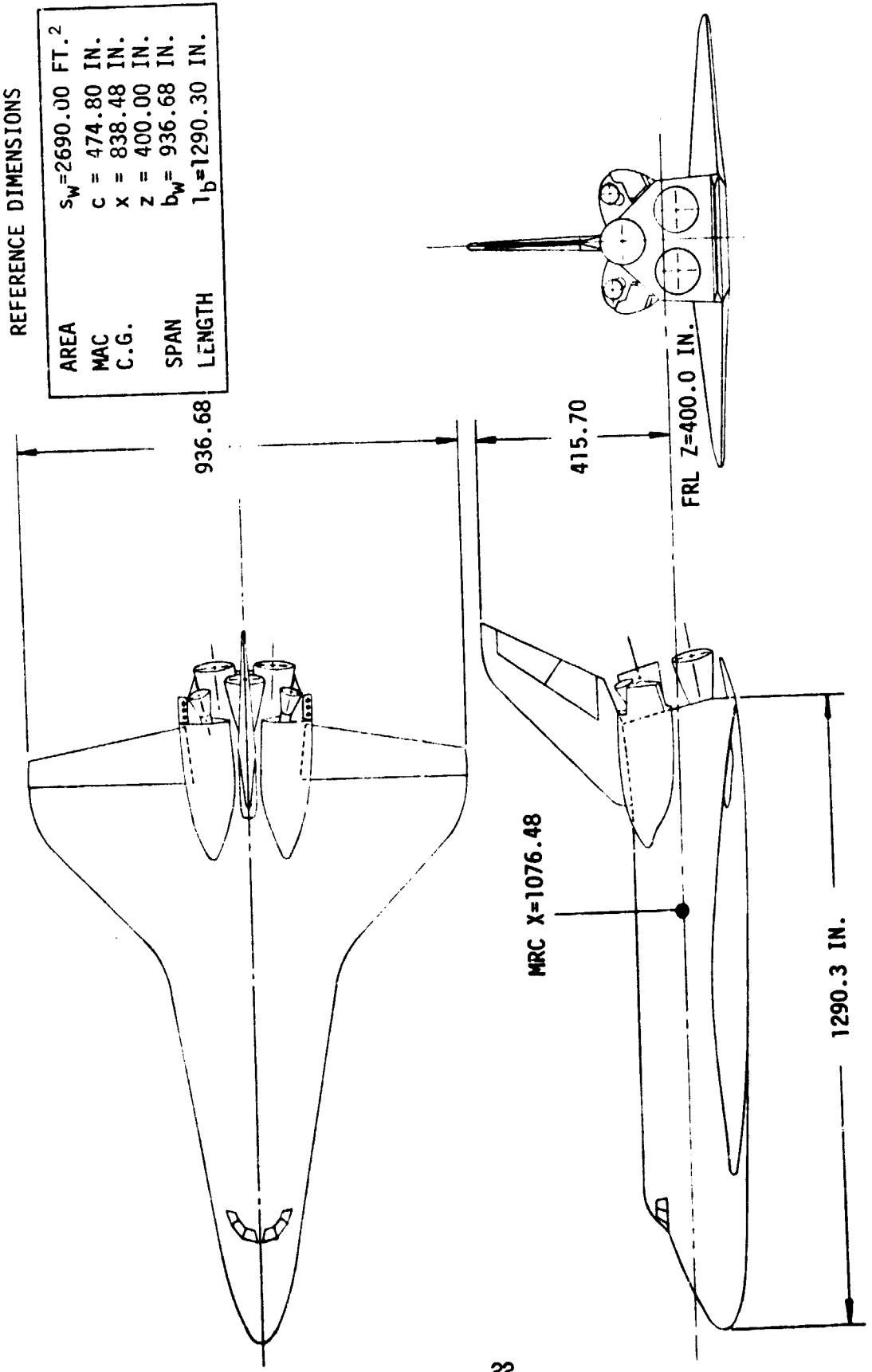
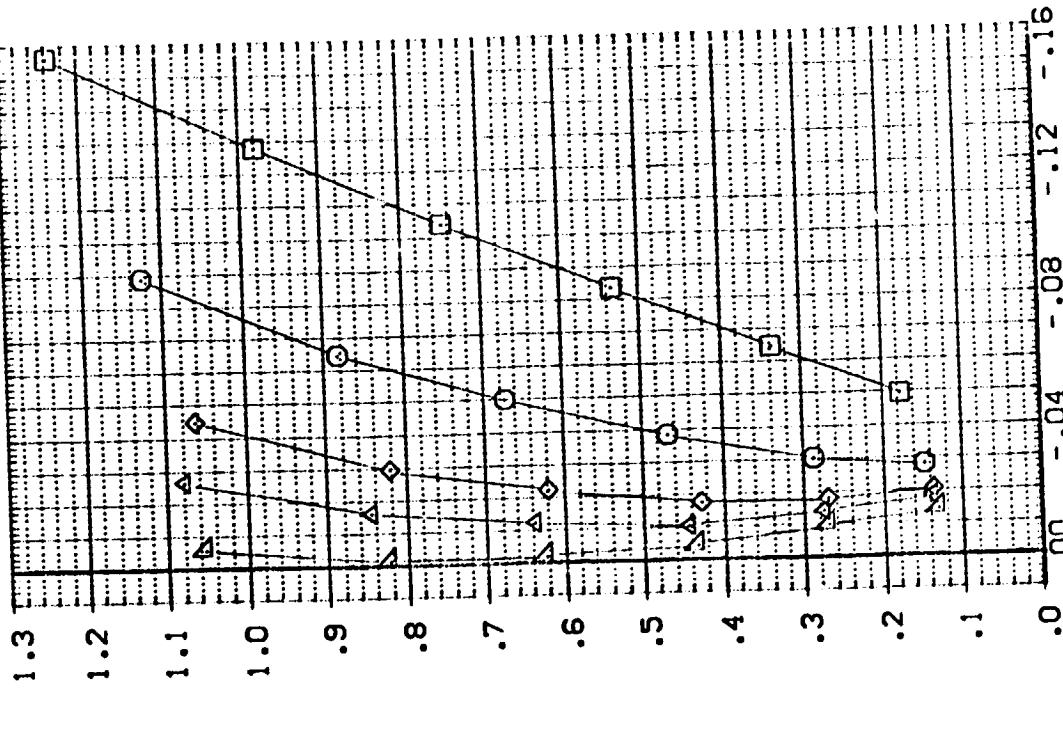
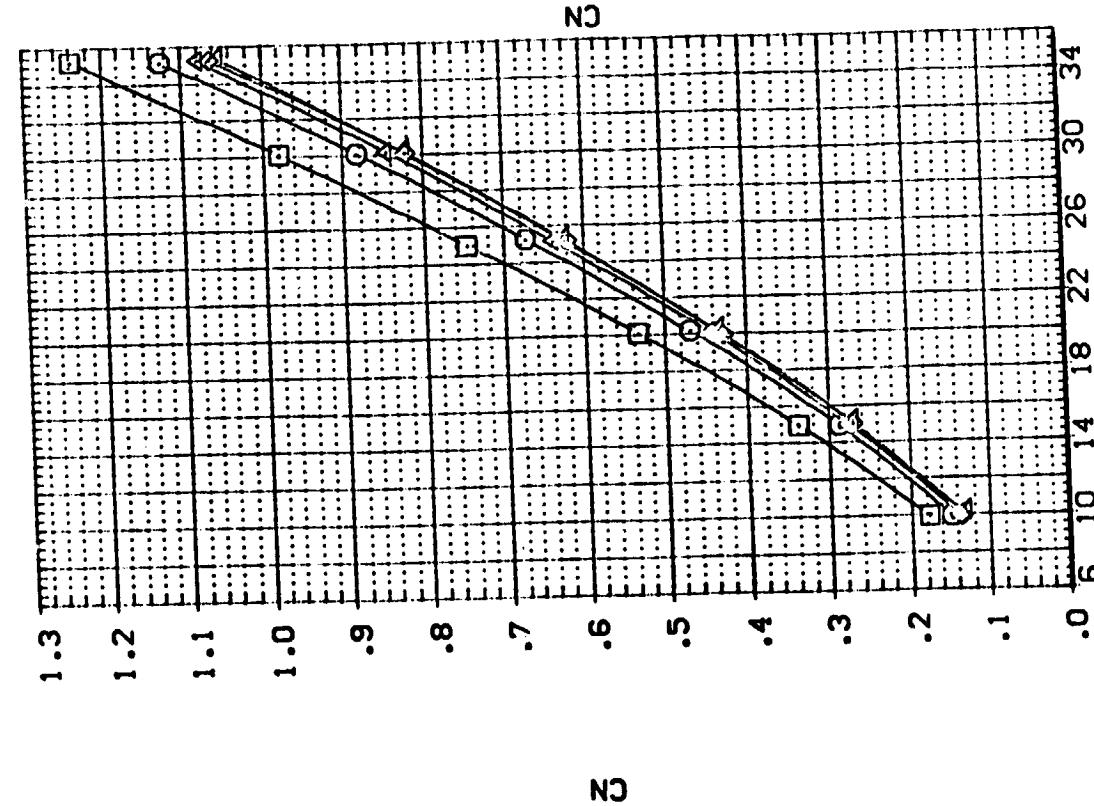


Figure 2. - SSV Orbiter Configuration 3 Baseline.

DATA FIGURES

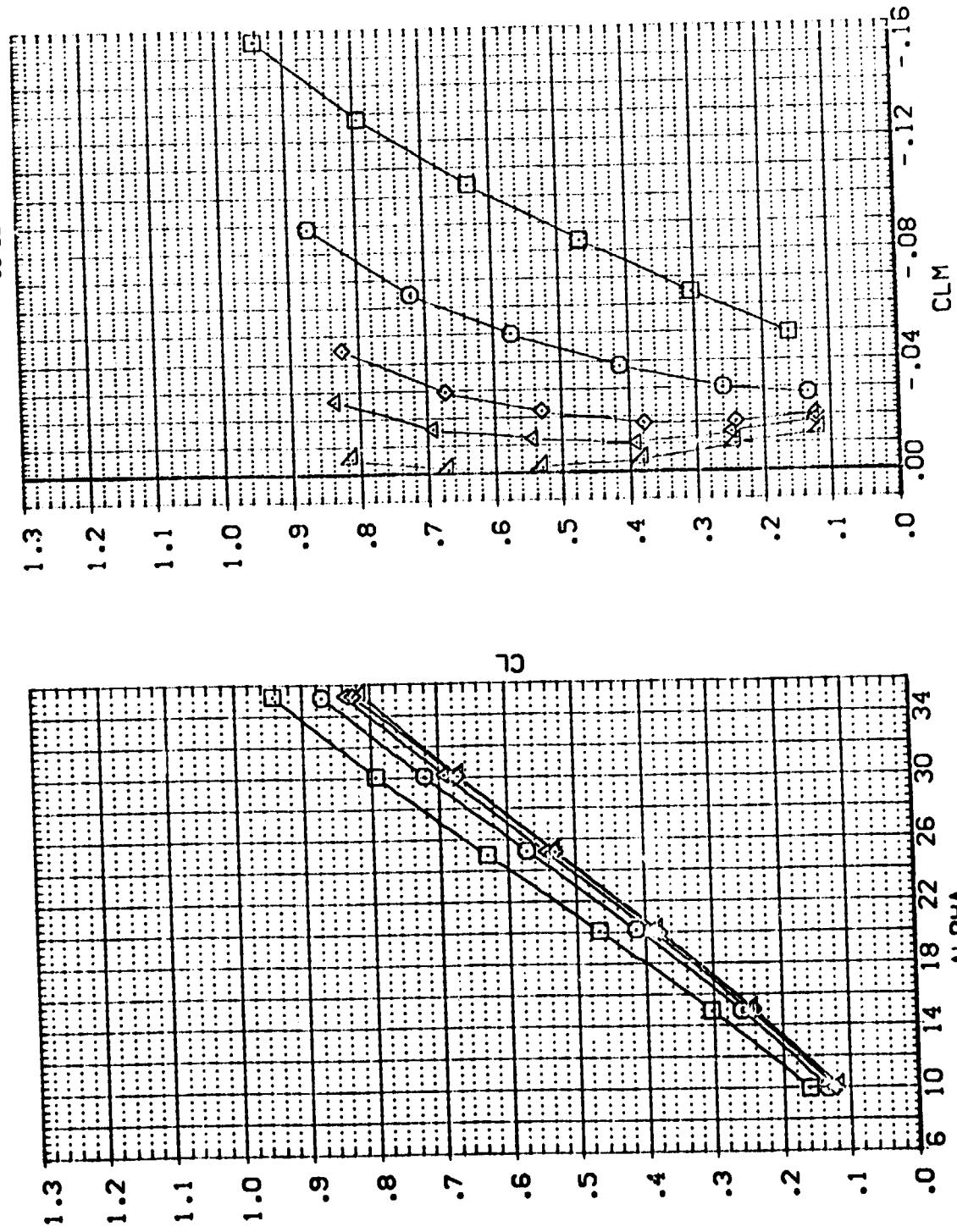
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
[RP2333]	LA-11. CFHT 96. ROCKWELL CRB. .0893 V/MCD. NOSE	BREF .000 -14.250 LREF .000 -14.250 SCAL. 21.7886 SC. IN.
[RP2334]	LA-11. CFHT 96. ROCKWELL CRB. .0893 V/MCD. NOSE	BREF .000 -10.000 LREF .000 -14.250 SCAL. 3.5512 SC. IN.
[RP2335]	LA-11. CFHT 96. ROCKWELL CRB. .0893 V/MCD. NOSE	BREF .000 -20.000 LREF .000 -14.250 SCAL. 7.2512 SC. IN.
[RP2336]	LA-11. CFHT 96. ROCKWELL CRB. .0893 V/MCD. NOSE	BREF .000 -40.000 LREF .000 -14.250 SCAL. 5.6022 SC. IN.
[RP2337]	LA-11. CFHT 96. ROCKWELL CRB. .0893 V/MCD. NOSE	BREF .000 -40.000 LREF .000 -14.250 SCAL. 12.0000 SC. IN.
[RP2338]	LA-11. CFHT 96. ROCKWELL CRB. .0893 V/MCD. NOSE	BREF .000 -40.000 LREF .000 -14.250 SCAL. .0255 SC. IN.



EFFECT OF ELEVATOR DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS
 $(\Delta MACH = 10.30)$

PAGE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVATOR	AILERON	BOEFLAP	REFERENCE INFORMATION
[CRPC03]	LA-11 CFHT SS. ROCKWELL CRB. 089 VNOSE. NOSE	.000	10.000	.000	-14.250	SREF 21.7886 SCIN 3.5511 INCES 7.0251
[CRPC01]	LA-11 CFHT SS. ROCKWELL CRB. 089 VNOSE. NOSE	.000	10.000	.000	-14.250	32EF 6.2952 INCES 6.2953 INCES .0000
[CRPC02]	LA-11 CFHT SS. ROCKWELL CRB. 089 VNOSE. NOSE	.000	-10.000	.000	-14.250	X2P2 Y2P2 Z2P2
[CRPC17]	LA-11 CFHT SS. ROCKWELL CRB. 089 VNOSE. NOSE	.000	-20.000	.000	-14.250	
[CRPC05]	LA-11 CFHT SS. ROCKWELL CRB. 089 VNOSE. NOSE	.000	-40.000	.000	-14.250	

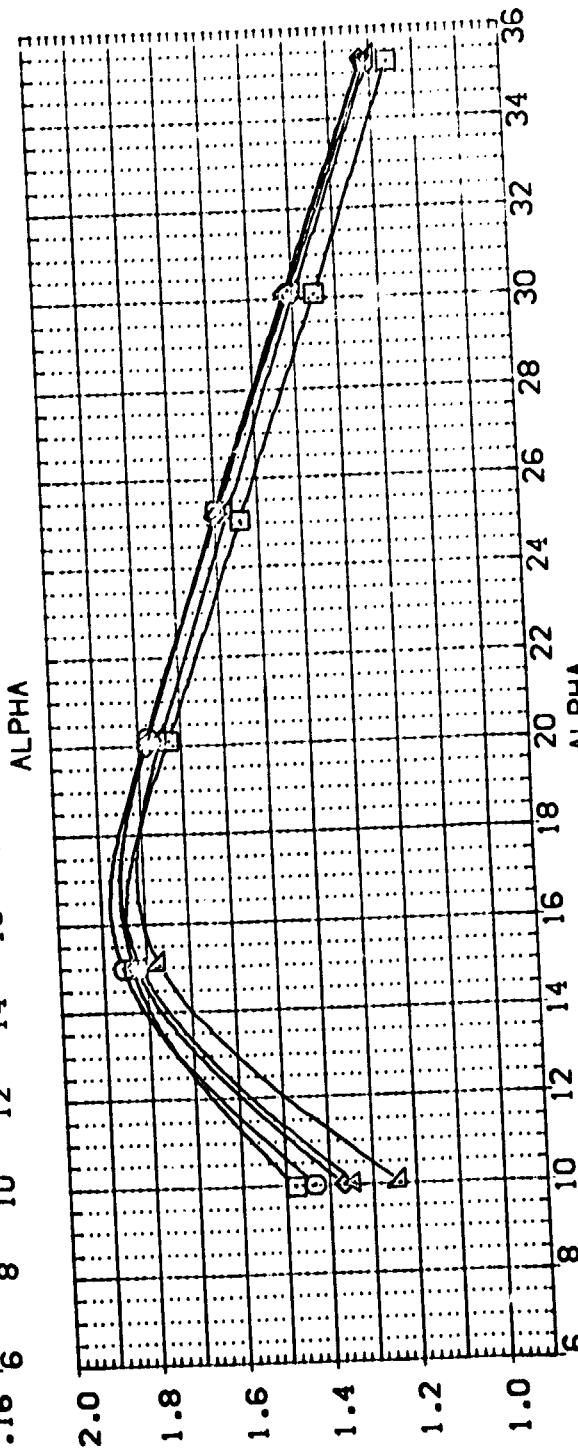
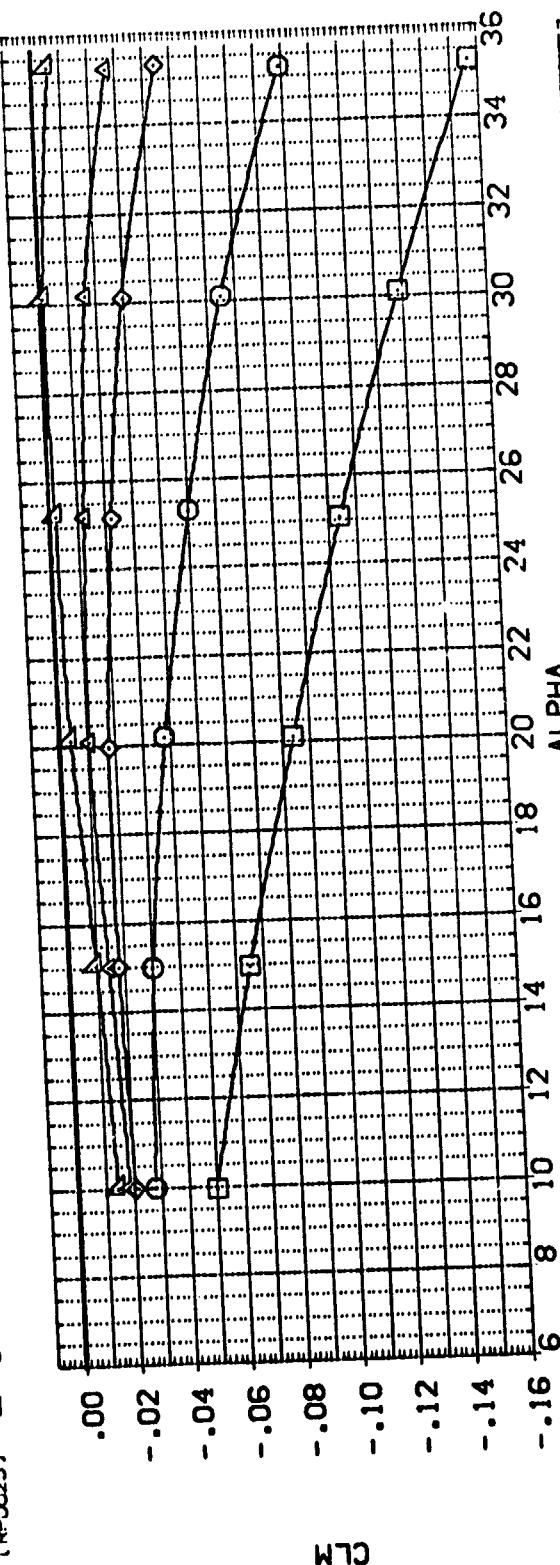


EFFECT OF ELEVATOR DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS

$(\text{AJMACH}) = 10.30$

PAGE 2

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AIRON	BOFLAP	REFERENCE INFORMATION
RFD0033	LA-1. CFH 90°, ROCKWELL CFB, 0889 VNO.	.000	10.000	.000	-14.250	SREF 21.7886 SG IN. 3.5511
RFD0034	LA-1. CFH 90°, ROCKWELL CFB, 0889 VNO.	.000	10.000	.000	-14.250	LAES 7.0251
RFD0035	LA-1. CFH 90°, ROCKWELL CFB, 0889 VNO.	.000	10.000	.000	-14.250	LAES 6.2852
RFD0036	LA-1. CFH 90°, ROCKWELL CFB, 0889 VNO.	.000	10.000	.000	-14.250	LAES .0000
RFD0037	LA-1. CFH 90°, ROCKWELL CFB, 0889 VNO.	.000	10.000	.000	-14.250	LAES .0075
RFD0038	LA-1. CFH 90°, ROCKWELL CFB, 0889 VNO.	.000	10.000	.000	-14.250	LAES .0000



EFFECT OF ELEVATOR DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS

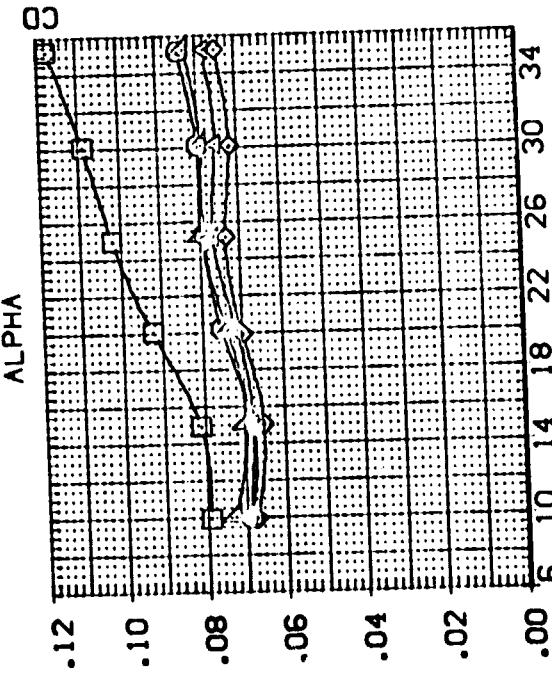
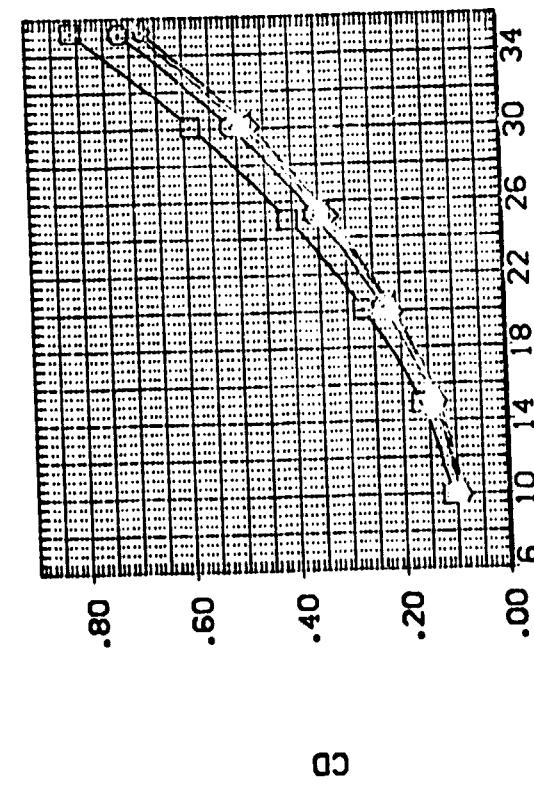
(A) MACH = 10.30

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(RP0003)	LA-11. CFHT 95; ROCKWELL CR3.	.0898	V/NOSE.
(RP0004)	LA-11. CFHT 95; ROCKWELL CR3.	.0893	V/NOSE.
(RP0005)	LA-11. CFHT 95; ROCKWELL CR3.	.0893	V/NOSE.
(RP0006)	LA-11. CFHT 95; ROCKWELL CR3.	.0893	V/NOSE.
(RP0007)	LA-11. CFHT 95; ROCKWELL CR3.	.0893	V/NOSE.
(RP0008)	LA-11. CFHT 95; ROCKWELL CR3.	.0893	V/NOSE.

REFERENCE INFORMATION

BETA	ELEVTR	AILRDN	BOFLAP	SCIN
.000	.000	.000	-14.250	21.7885
.000	.000	.000	-14.250	3.5611
.000	.000	.000	-14.250	7.0251
.000	.000	.000	-14.250	6.2822
.000	.000	.000	-14.250	0.0000
.000	.000	.000	-14.250	.0275



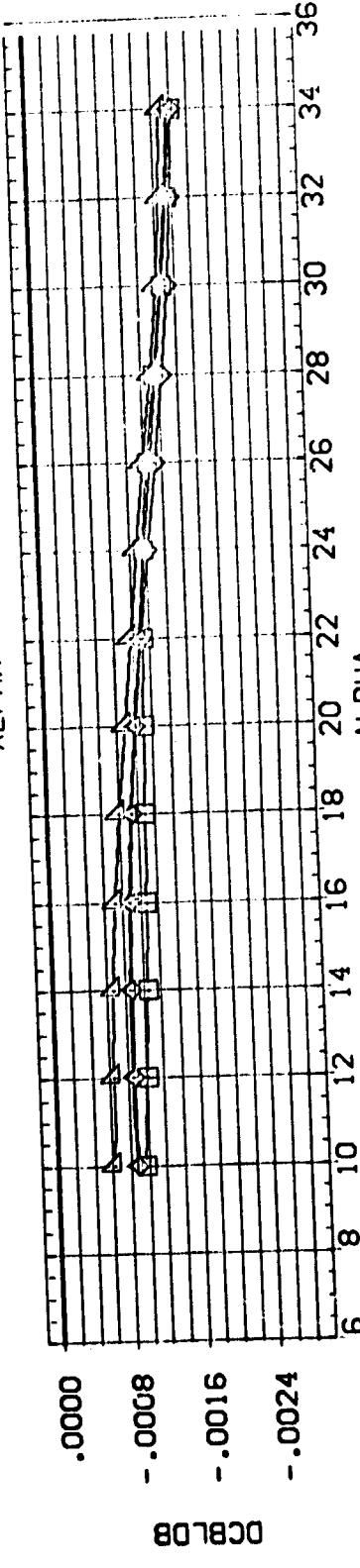
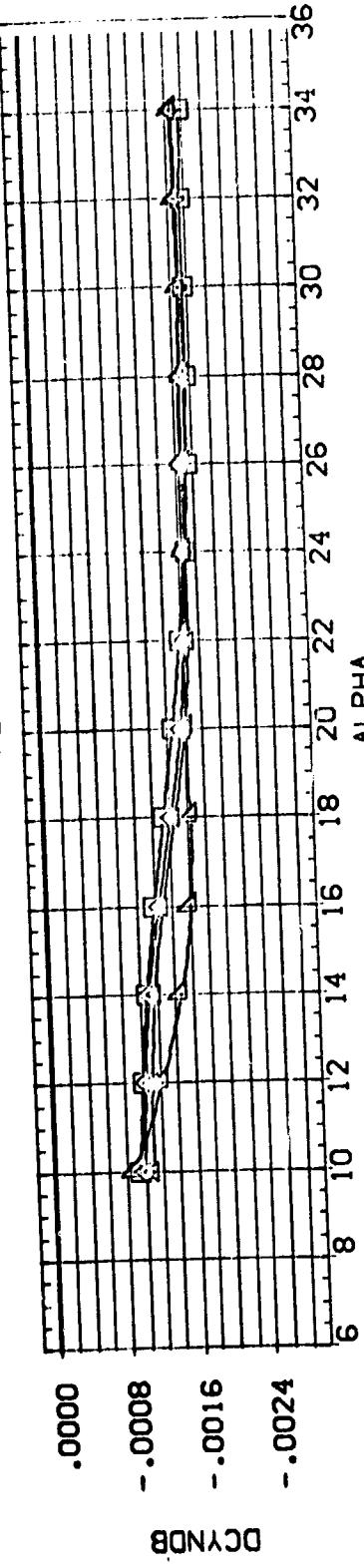
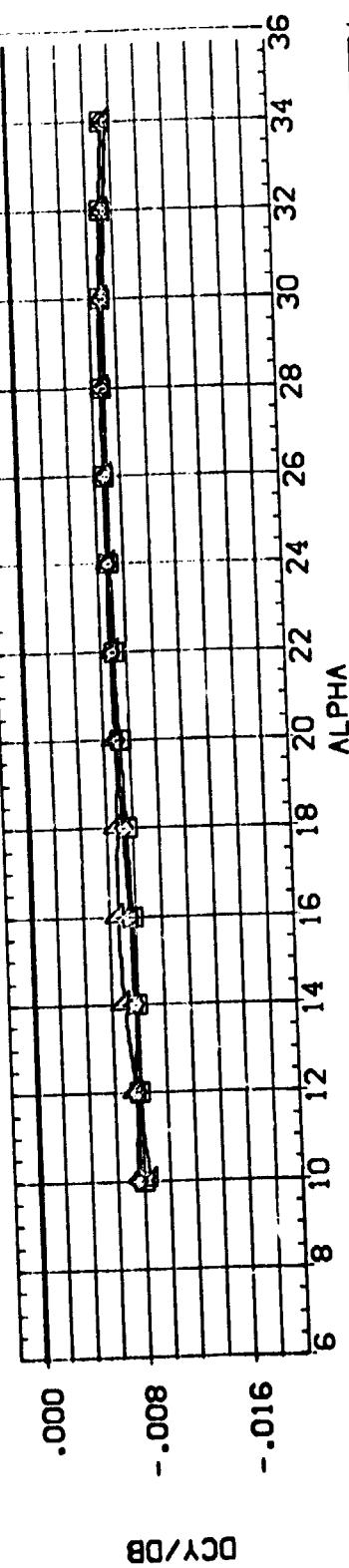
EFFECT OF ELEVATOR DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS

(Δ) MACH = 10.30

PAGE 4

DATA SET SNOZ. CONFIGURATION DESCRIPTION: CRB. 0898 VIND. NOSE
 (820034) LA-1. CHT 95. ROCKWELL CRB. 0899 VIND. NOSE
 (820010) LA-1. CHT 95. ROCKWELL CRB. 0899 VIND. NOSE
 (820018) LA-1. CHT 95. ROCKWELL CRB. 0899 VIND. NOSE
 (820026) LA-1. CHT 95. ROCKWELL CRB. 0899 VIND. NOSE

REFERENCE INFORMATION
 SC. IN.
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 3 56.1
 7.256
 6 2852
 10000
 1.0375
 SCALE

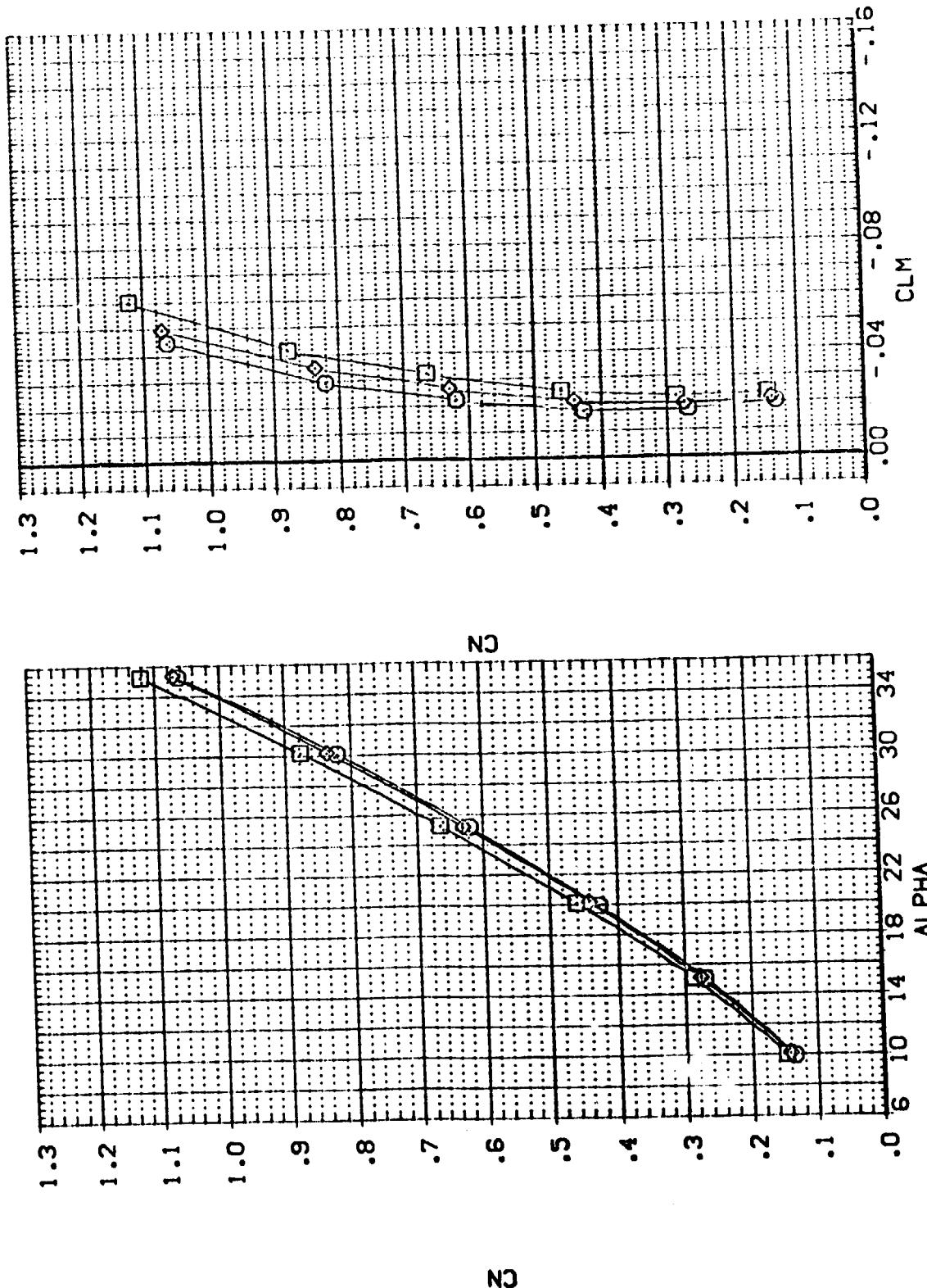


EFFECT OF ELEVATOR DEFLECTION ON LAT.-DIRECTIONAL DERIVATIVES

(A)MACH = 10.30

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 (RPD041) LA-11. CHT 96. ROCKWELL CRB. C899 V/MOD. NOSE
 (RPD049) LA-11. CHT 96. ROCKWELL CRB. C893 V/MOD. NOSE

	BETA	ELEVTR	AILERON	BOFLAP	REFERENCE INFORMATION
.000	-10.000	-10.000	-14.250	SREF 21.7886 SC: IN.	
.000	-10.000	-10.000	-14.250	LREF 3.5611 INCHES	
.000	-10.000	-10.000	-14.250	BREF 7.0251 INCHES	
				XRP 6.2802 INCHES	
				YRP .0000 INCHES	
				ZRP .0075 INCHES	
				SCALE	



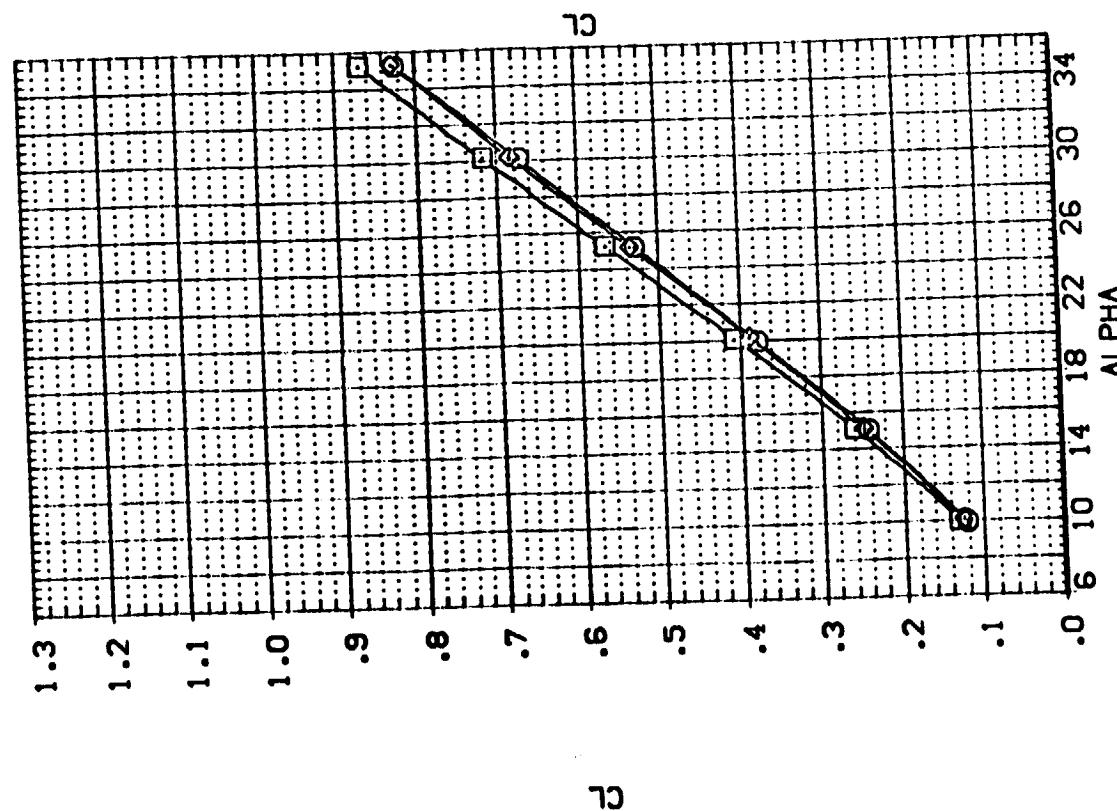
EFFECT OF AILERON DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS
 (α) MACH = 10.30

PAGE 6

DATA SET SYMBOL CONFIGURATION DESCRIPTION V/MOD. NOSE V/MOD. NOSE V/MOD. NOSE

(RPD039)	LA-11-CFH	96. ROCKWELL CRB.	0888	0893	0893
(RPD041)	LA-11-CFH	96. ROCKWELL CRB.	0893	0893	0893
(RPD049)	LA-11-CFH	96. ROCKWELL CRB.	0893	0893	0893

REFERENCE INFORMATION
SC. INCHES
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LREF 3.5611
BREF 7.0251
XREF 6.2692
YREF .0000
ZREF .0000
SCALE .C075

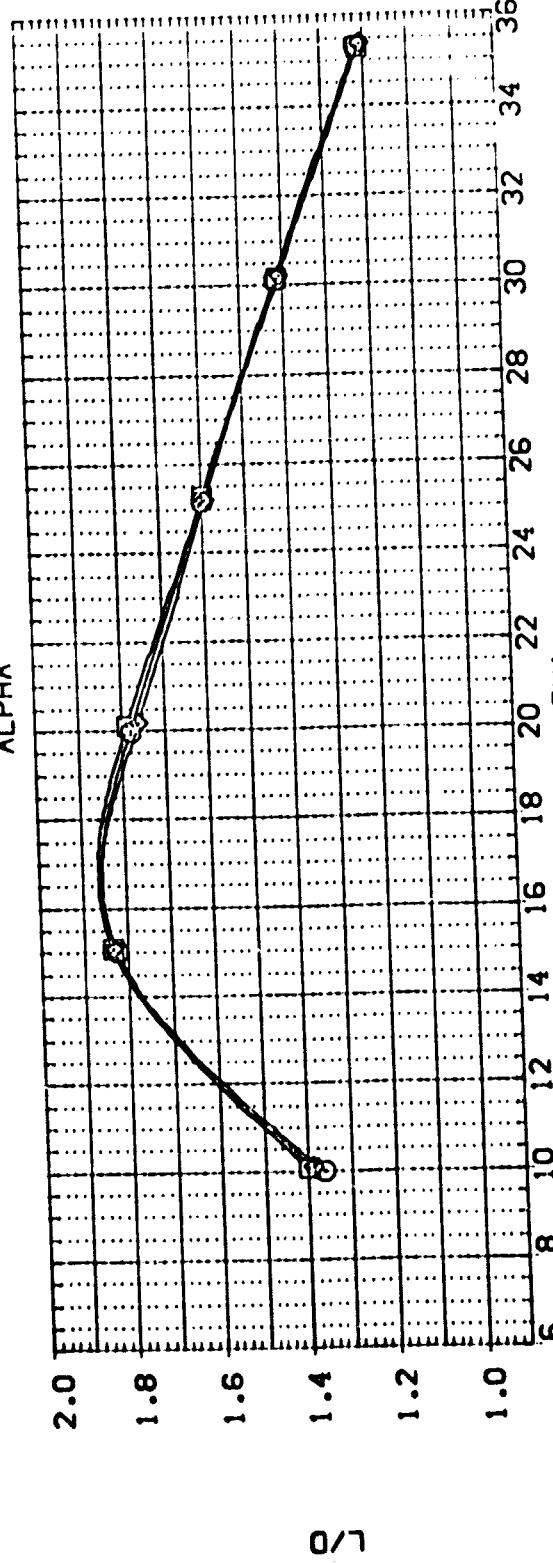
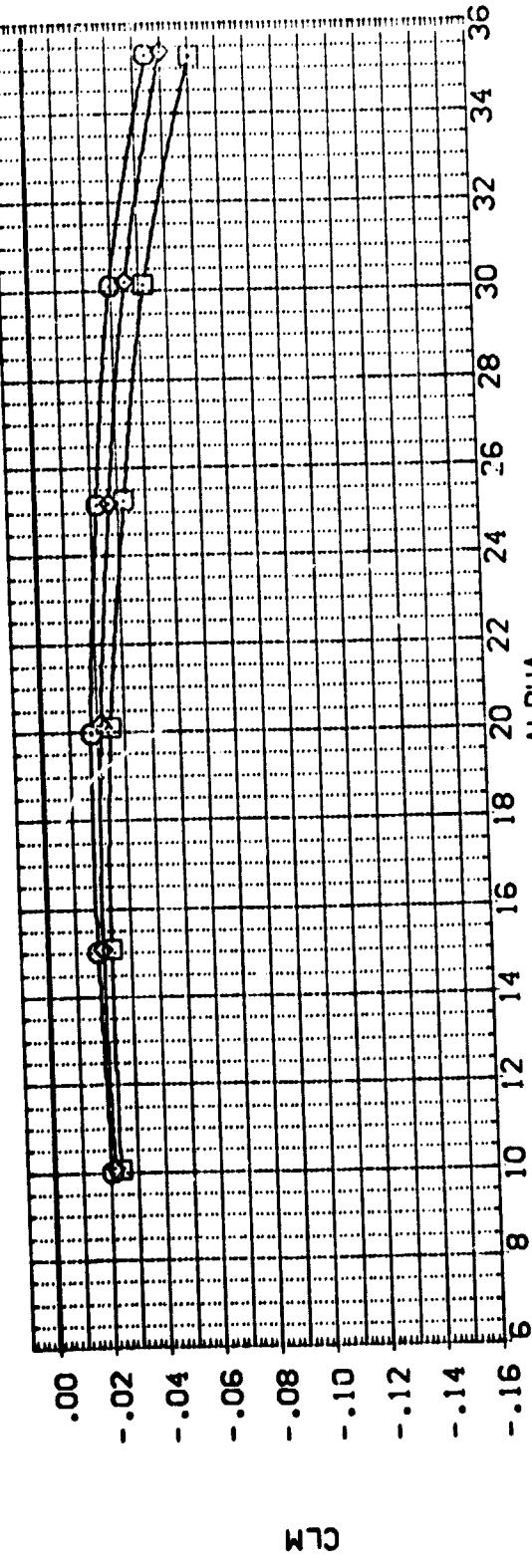


EFFECT OF AILERON DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS

(A)MACH = 10.30

PAGE 7

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 (RPD041) LA-11. CFHT SS. ROCKWELL CR3. 0899 V/MOD. NOSE 21.7886
 (RPD049) LA-11. CFHT SS. ROCKWELL CR3. 0899 V/MOD. NOSE LREF 3.561.
 (RPD049) LA-11. CFHT SS. ROCKWELL CR3. 0899 V/MOD. NOSE LREF 7.025.
 (RPD049) LA-11. CFHT SS. ROCKWELL CR3. 0899 V/MOD. NOSE BREF 6.262.
 (RPD049) LA-11. CFHT SS. ROCKWELL CR3. 0899 V/MOD. NOSE XWR 0.002.
 (RPD049) LA-11. CFHT SS. ROCKWELL CR3. 0899 V/MOD. NOSE YWR 0.003.
 (RPD049) LA-11. CFHT SS. ROCKWELL CR3. 0899 V/MOD. NOSE ZWR -0.075.
 SCALE



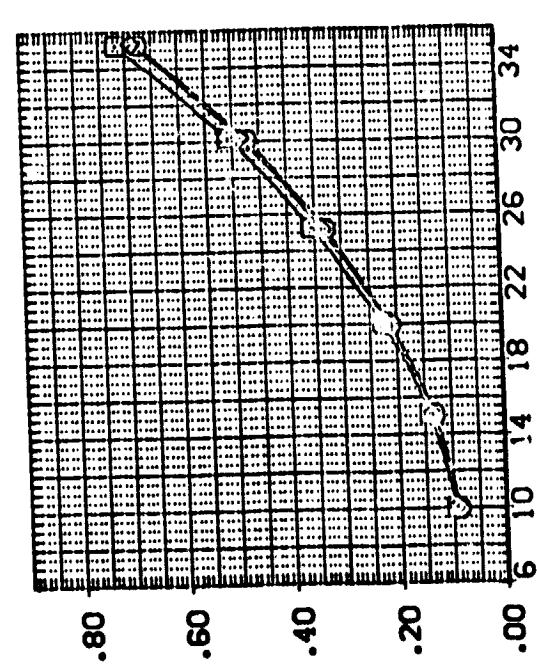
EFFECT OF AILERON DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS

(A)_{MACH} = 10.30

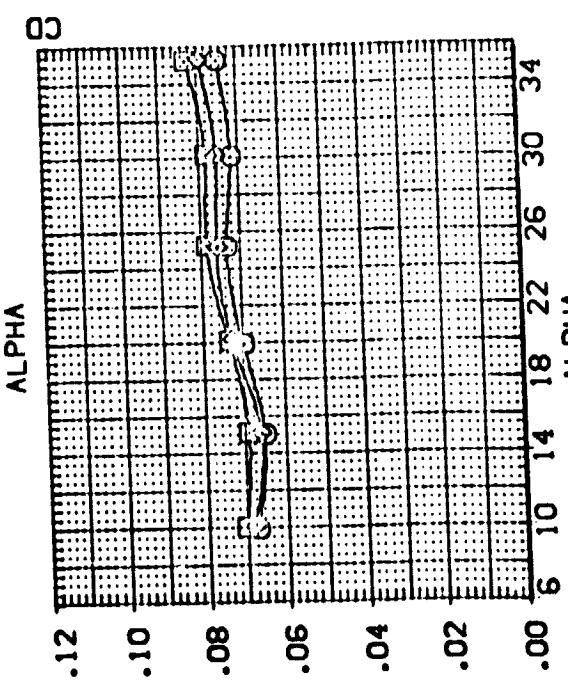
PAGE 8

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 (RP3041) LA-1. CFT 95. ROCKWELL CR3. 0899 V/NO. NOSE
 (RP3049) LA-1. CFT 95. ROCKWELL CR3. 0899 V/NO. NOSE

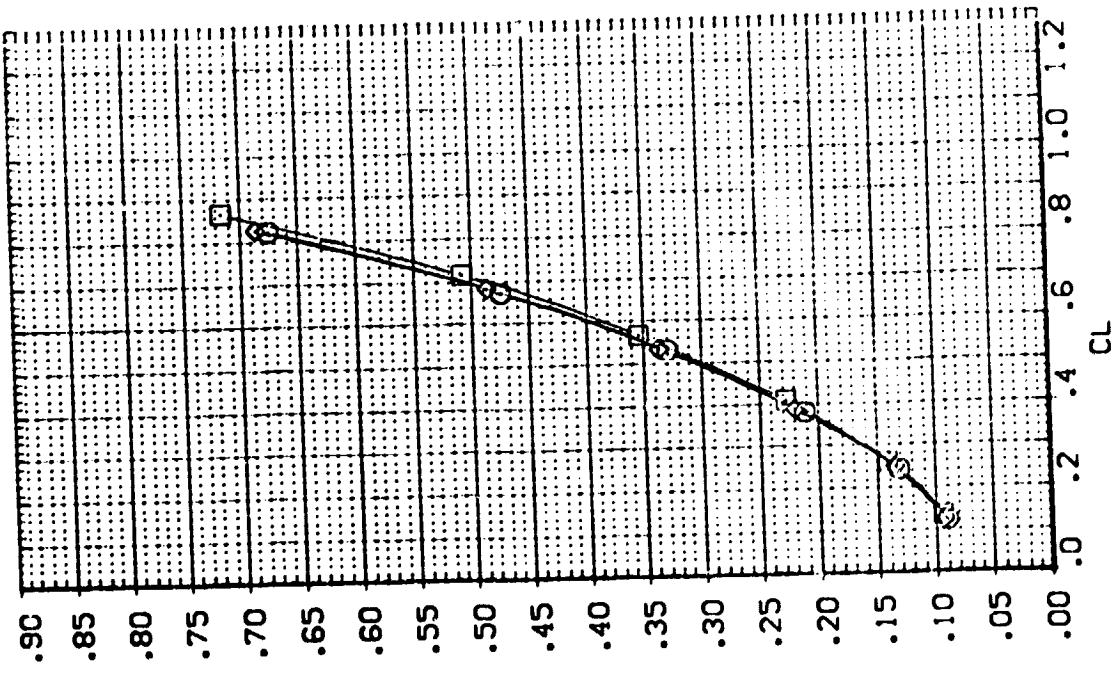
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 .000 -10.000 10.000 -14.250 3.55 INCHES
 .000 -10.000 10.000 -14.250 7.25 INCHES
 .000 -10.000 10.000 -14.250 6.2802 INCHES
 .000 -10.000 10.000 -14.250 1.3335 INCHES
 .000 -10.000 10.000 -14.250 .3375 SCALE



Cl



Ca



EFFECT OF AILERON DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS

$(\Delta \alpha)_{MACH} = 10.30$

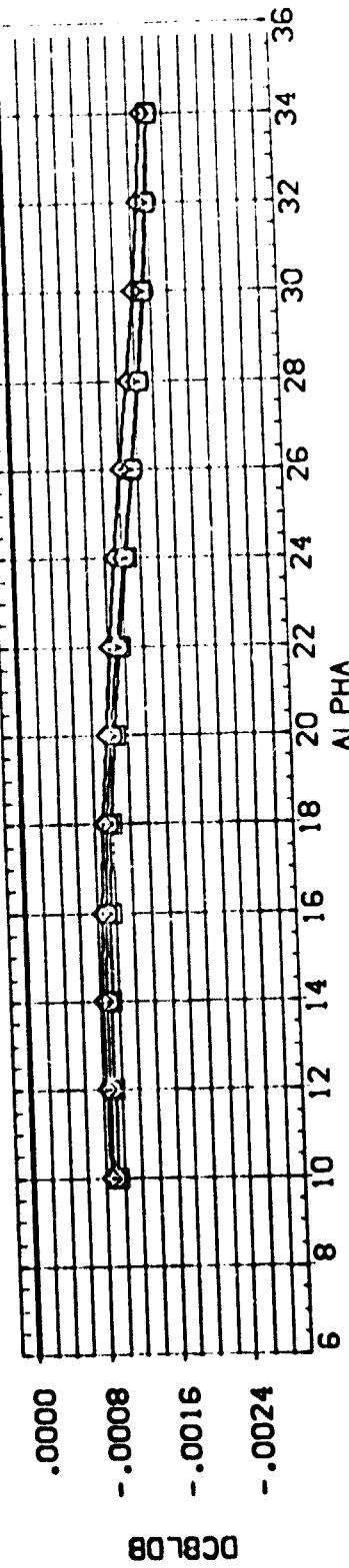
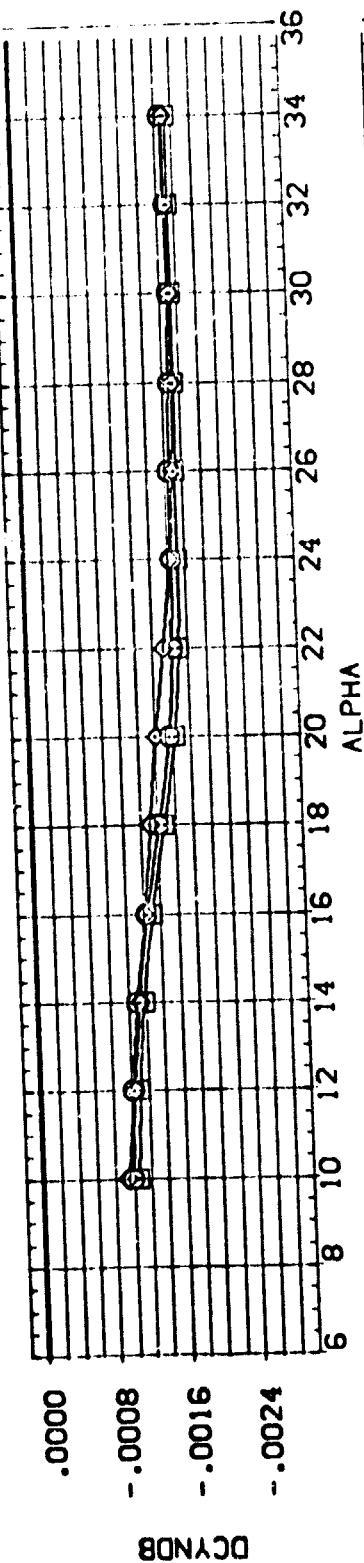
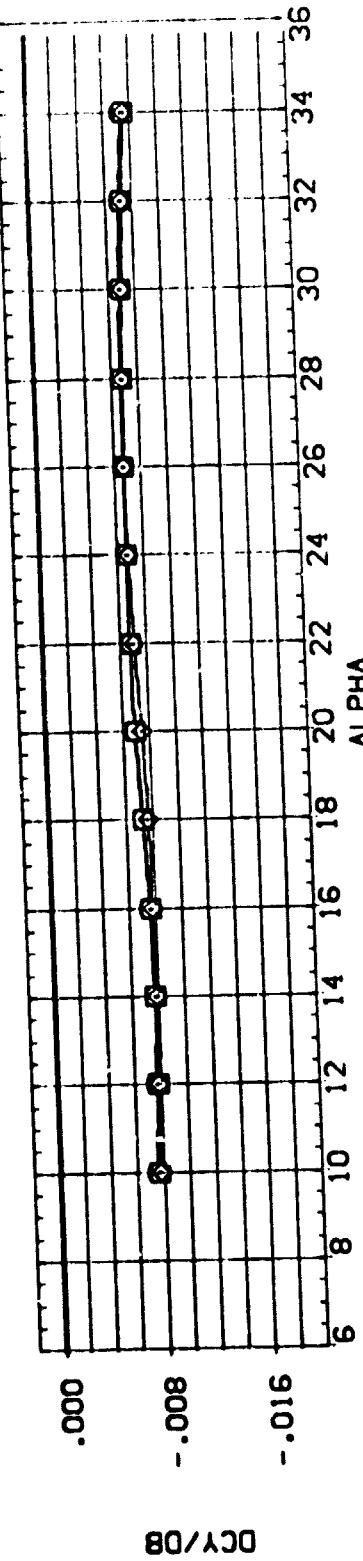
PAGE 9

DATA SET SYMBOL CONFIGURATION DESCRIPTION

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1B20012	△	ROCKWELL C96.	089 VMC. NOSE	-10.000	-14.250	
1B20030	○	LA-11. CFH 96.	089 VMC. NOSE	-10.000	-10.000	-14.250
	◊	LA-11. CFH 96.	089 VMC. NOSE	-10.000	-10.000	-10.000

REFERENCE INFORMATION

SREF	21.7986	SG IN.
LREF	3.9611	INCHES
BREF	7.3261	INCHES
XREF	6.2602	INCHES
YREF	6.2602	INCHES
ZREF	1.0000	INCHES
SCALE	1.0000	



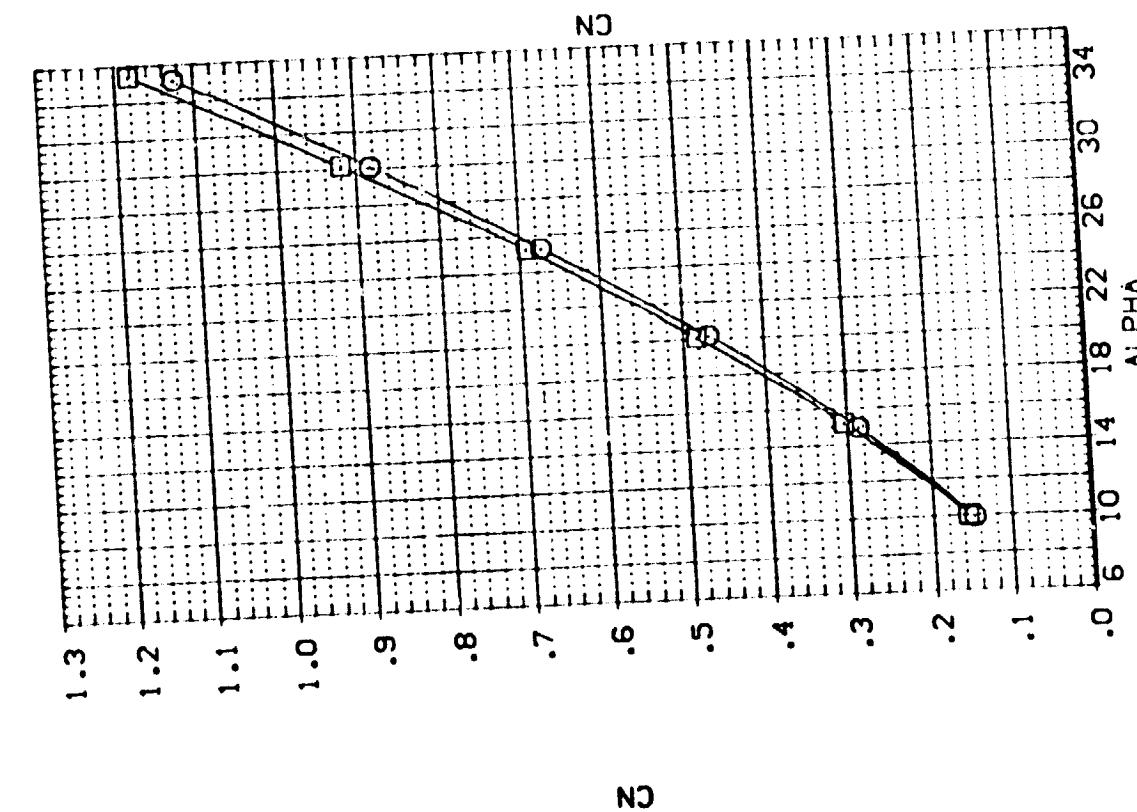
EFFECT OF AILERON DEFLECTION ON LAT.-DIRECTIONAL DERIVATIVES

MACH = 10.30

PAGE :C

DATA SET SYMBOL: CONFIGURATION DESCRIPTION: DBB, DBB, V/MOD, NOSE
 LA-11, CEN: 96, ROCKWELL CRB, 3883 V/MOD, NOSE
 LA-11, CEN: 96, ROCKWELL CRB, 3883 V/MOD, NOSE
 [RPD000] C [RPD073] L
 [RPD073]

REFERENCE INFORMATION: SCALING:
 ELEVATOR: .300 AILERON: .300 SREF: 21.7886
 .300 .300 .300 .300
 BREF: 3.561
 XREF: 1.025
 YREF: 6.000
 ZREF: 1.000
 SCALE: .00005



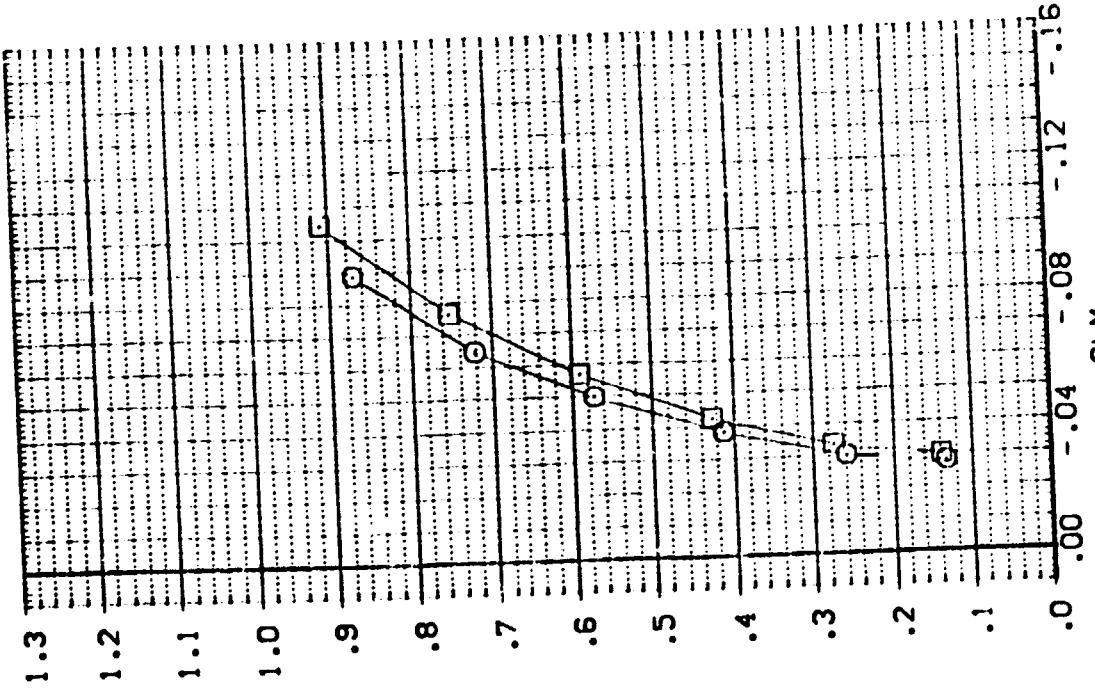
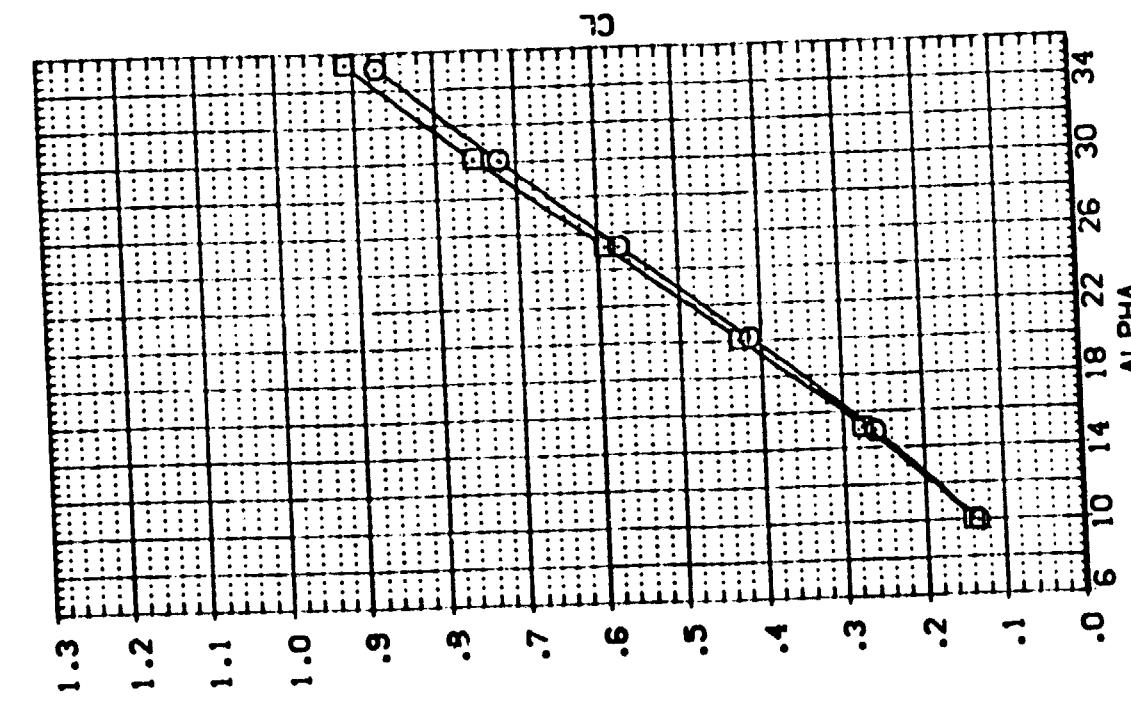
EFFECT OF BODY FLAP DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS

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$C_{\Delta MACH} = 0.30$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
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[AIRCRAFT] [AIRCRAFT] LA-11-CFT 95. ROCKWELL CRB. 0899 VNO. NOSE

REFERENCE INFORMATION
SC: N
SREF 21.7886
LREF 3.5611
BREF 7.0251
XMP 6.2652
YMP 6.2652
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SCALE .0375

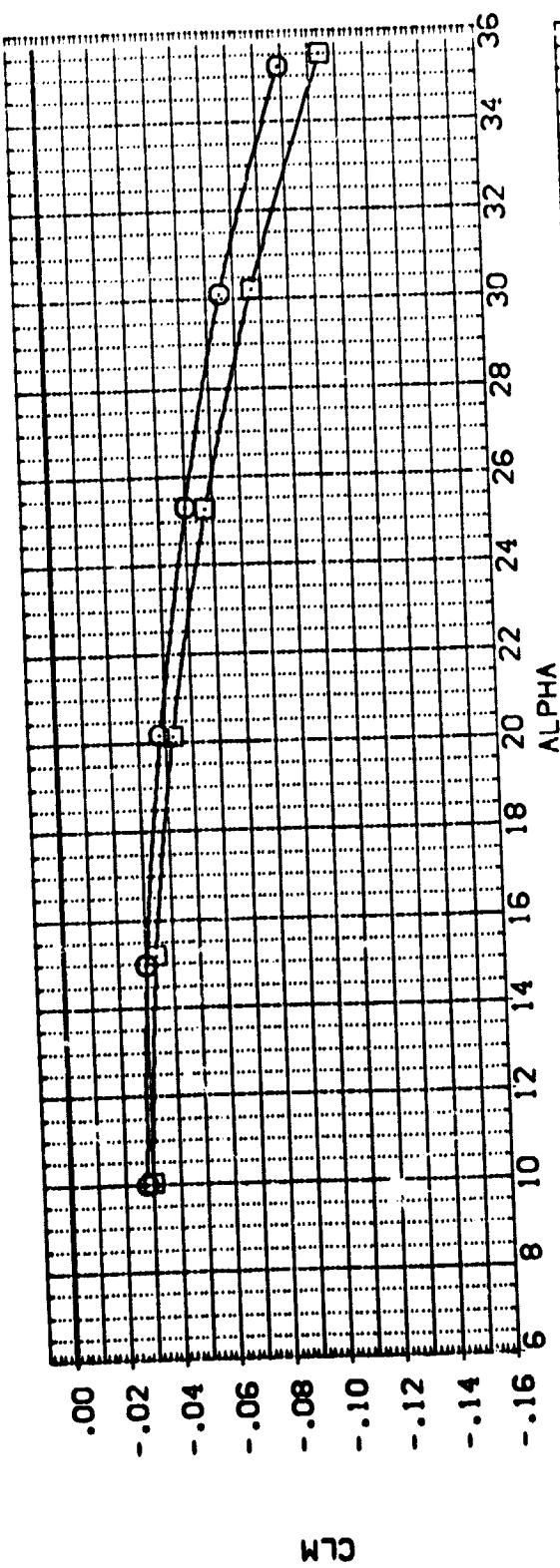


EFFECT OF BODY FLAP DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS
(α)_{MACH} = 10.3C

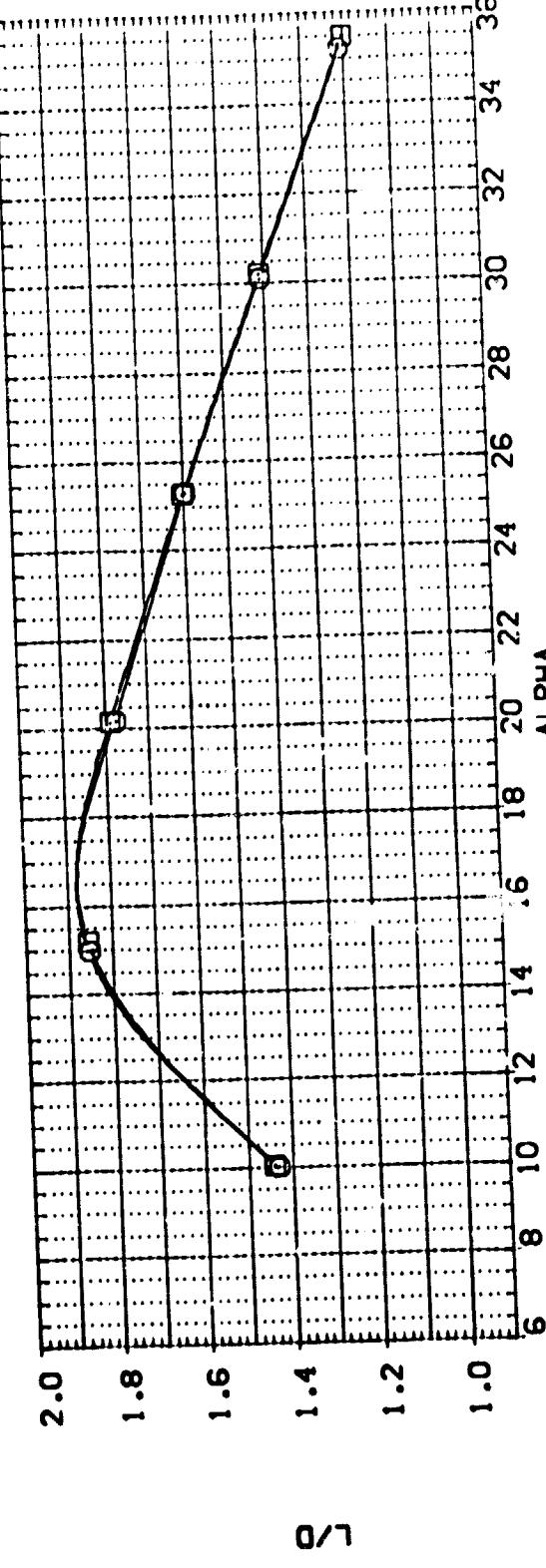
PAGE : 2

DATA SET NAME: CONFIGURATION DESCRIPTION: NOSE
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 (RPD073) LA-11.CFHT 96. ROCKWELL CRG: 063 VACO: NOSE

REFERENCE INFORMATION
 BETA .000 ELEVTR .000 AIRDN .000 BOFLAP -14.250 SPREF 21.7886 SC:N:
 .000 .000 .000 -.000 LREF 3.5611 S:
 .000 .000 .000 .000 BREF 7.0251 S:
 .000 .000 .000 .000 XREF 6.2622 S:
 .000 .000 .000 .000 YREF .0000 S:
 .000 .000 .000 .000 ZREF .0000 S:
 SCALE .0075 S:



CLM



L/D

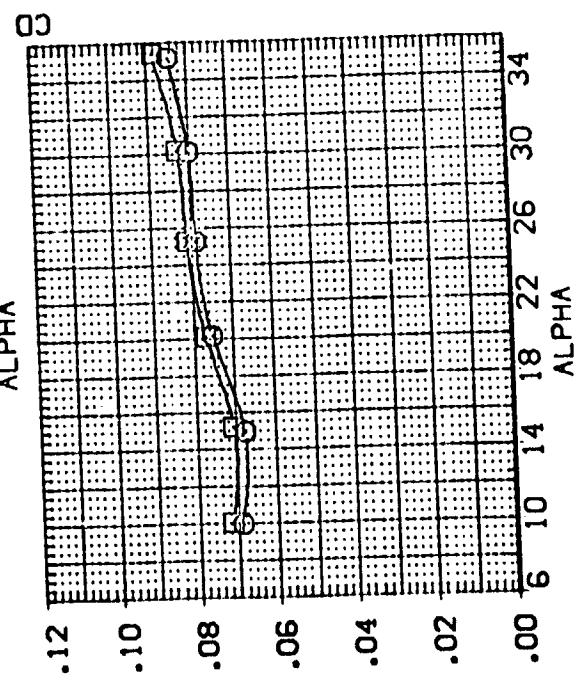
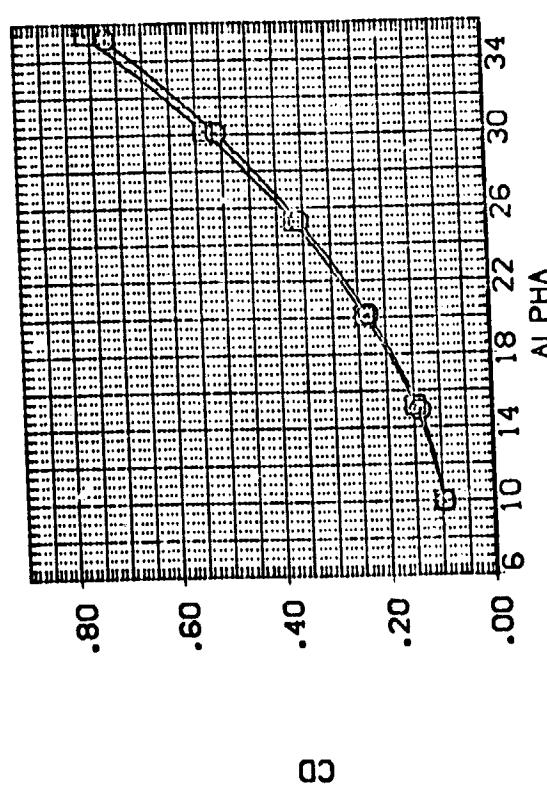
EFFECT OF BODY FLAP DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS

(Δ MACH = 10.30)

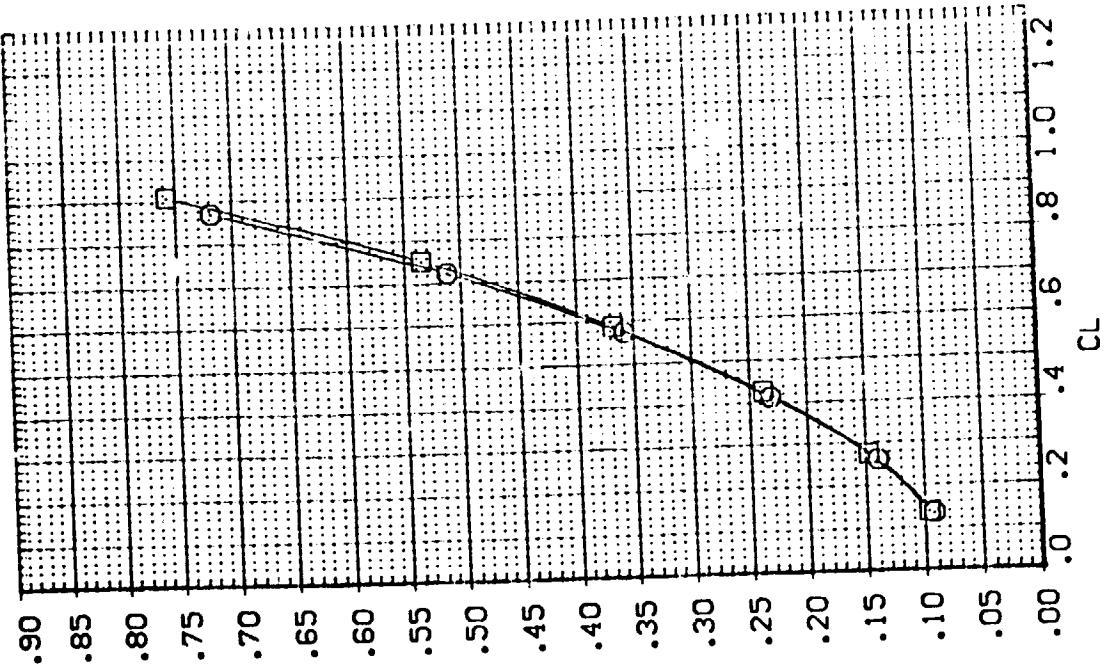
PAGE :3

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 [RP0001] [RP0073]

	BETA	ELEVTR	AILRDN	BOFLAP	REFERENCE INFORMATION
.000	.000	.000	-14.250	SREF	21.7886 SC.INS
.000	.000	.000	.000	LREF	3.381 SC.INS
.000	.000	.000	.000	BREF	7.325 SC.INS
.000	.000	.000	.000	XRP	6.262 SC.INS
.000	.000	.000	.000	YRP	1.953 SC.INS
.000	.000	.000	.000	ZRP	1.953 SC.INS
SCALE					.3575



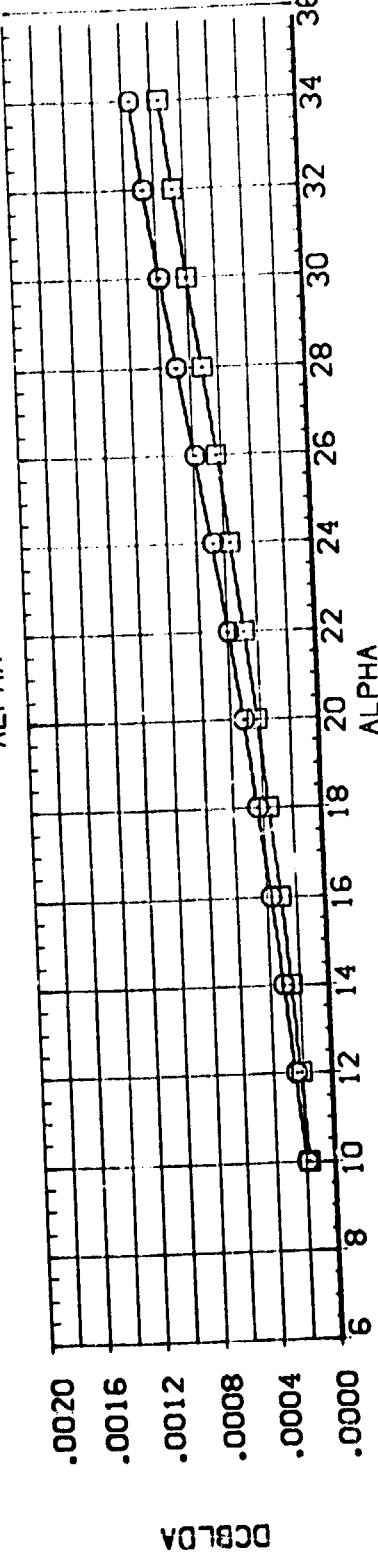
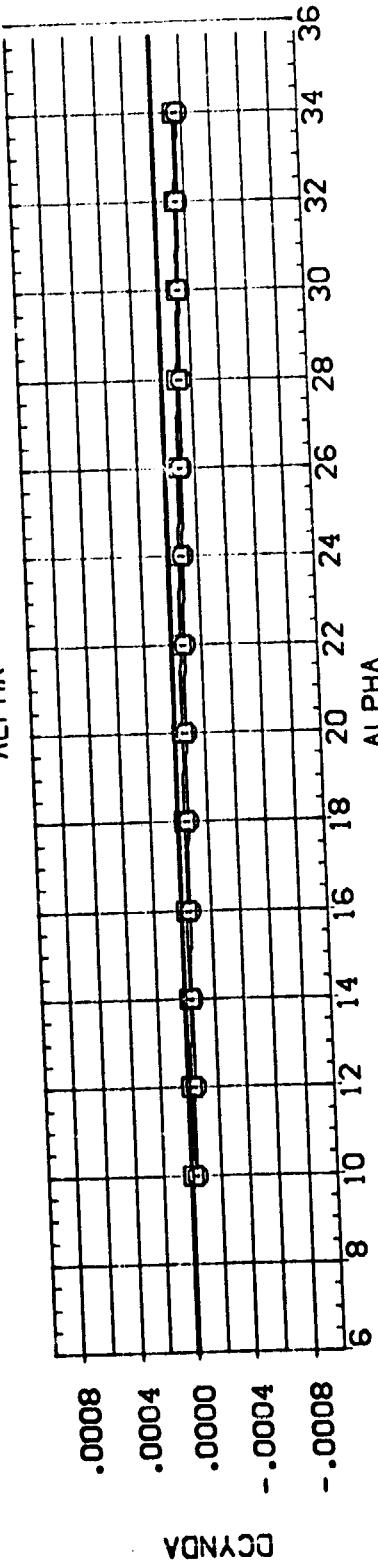
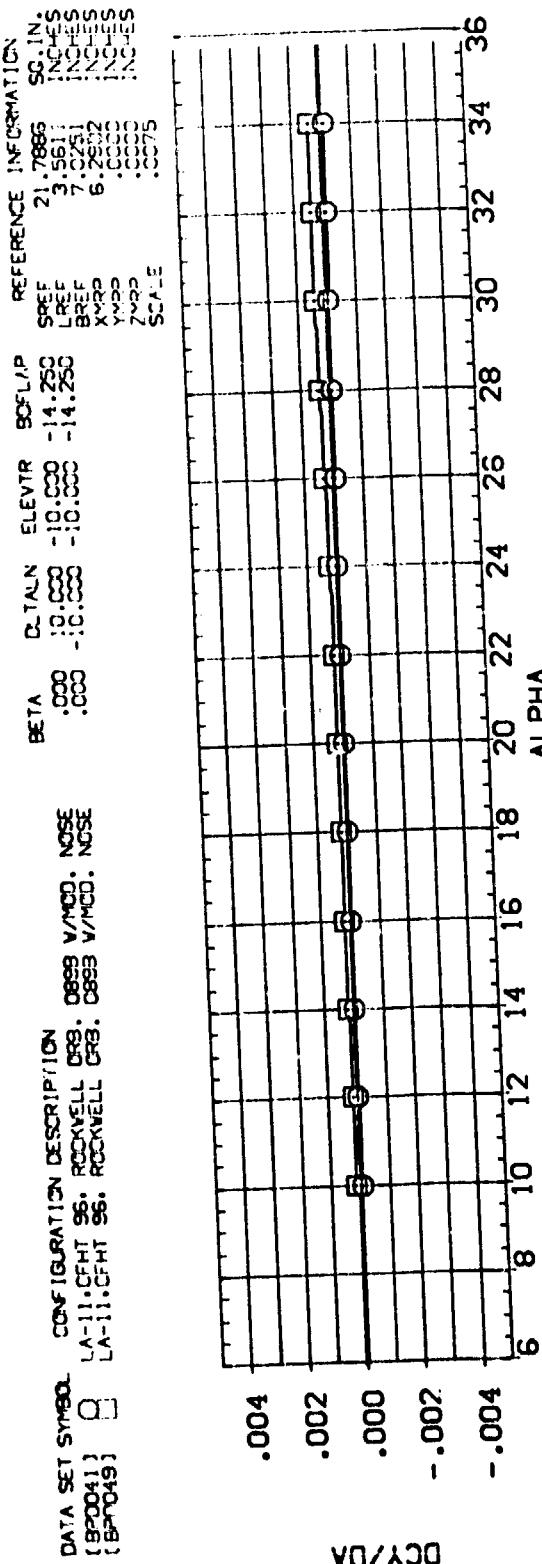
CA



EFFECT OF BODY FLAP DEFLECTION ON BASIC LONGITUDINAL CHARACTERISTICS
 $(\text{AOA})_{\text{MACH}} = 10.30$

PAGE :4

DATA SET SYMBOL CONFIGURATION DESCRIPTION SCFL/P REFERENCE INFORMATION
 DATA SET SYMBOL CONFIGURATION DESCRIPTION SCFL/P REFERENCE INFORMATION
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 LA-11-CFT 96. ROCKWELL GRB. 0889 V/MOD. NOSE
 (SPD041) (B7049) (SPD041) (B7049)

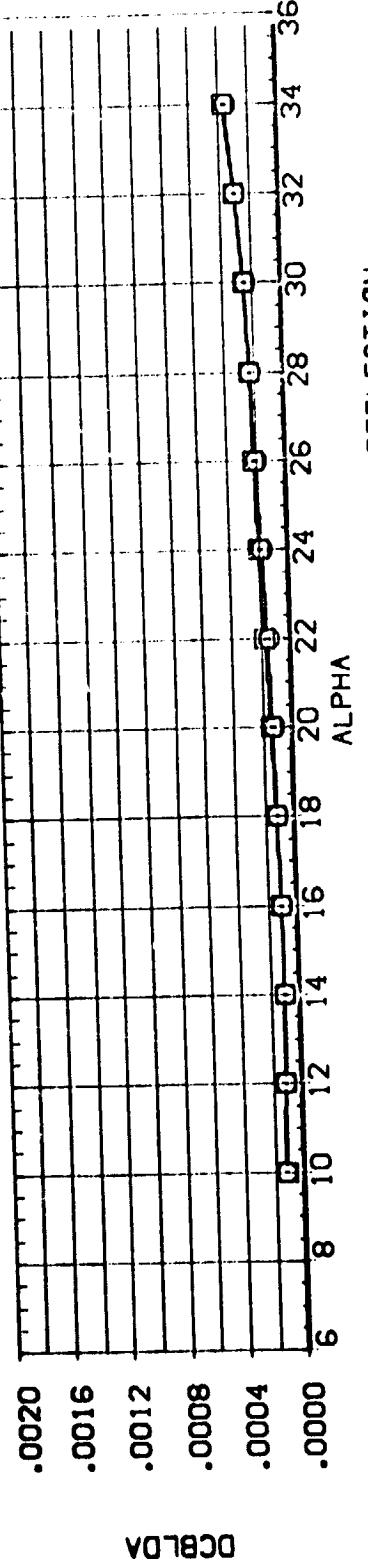
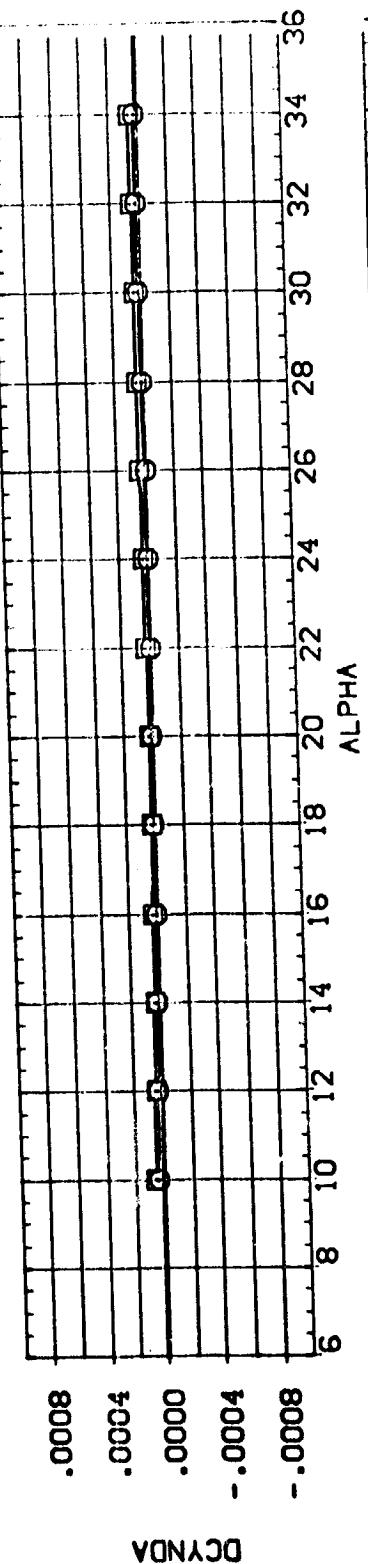
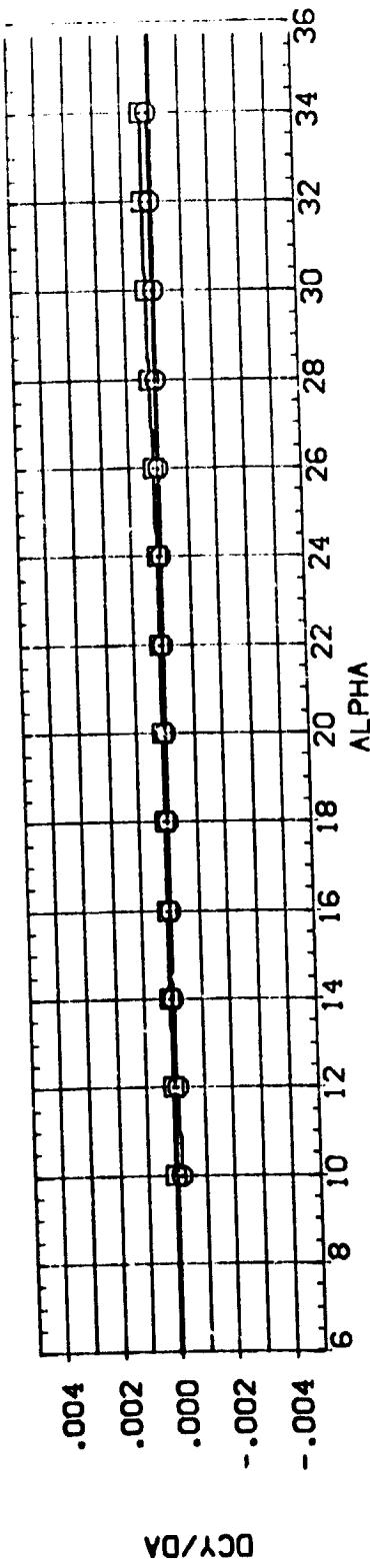


COMPARISON OF AILERON DERIVATIVES FOR OPPOSITE CONTROL DEFLECTION

(MACH = 10.30)

PAGE : 5

DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 {BPC057} LA-11:CFHT 96: ROCKWELL CRB. 0898 WIND. NCSE
 REFERENCE INFORMATION
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 BETA .000 10.000 -30.000 -14.250 SREF 21.7885
 .000 10.000 -30.000 -14.250 LREF 3.5611
 BREF 7.3251
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 YREF .000000
 ZREF .000000
 SCALE .000000
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 .000000

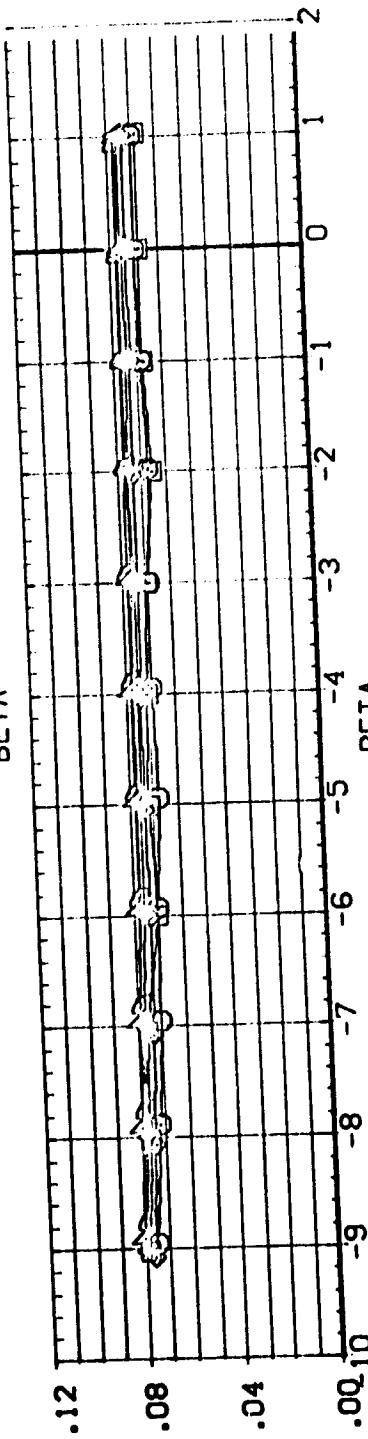
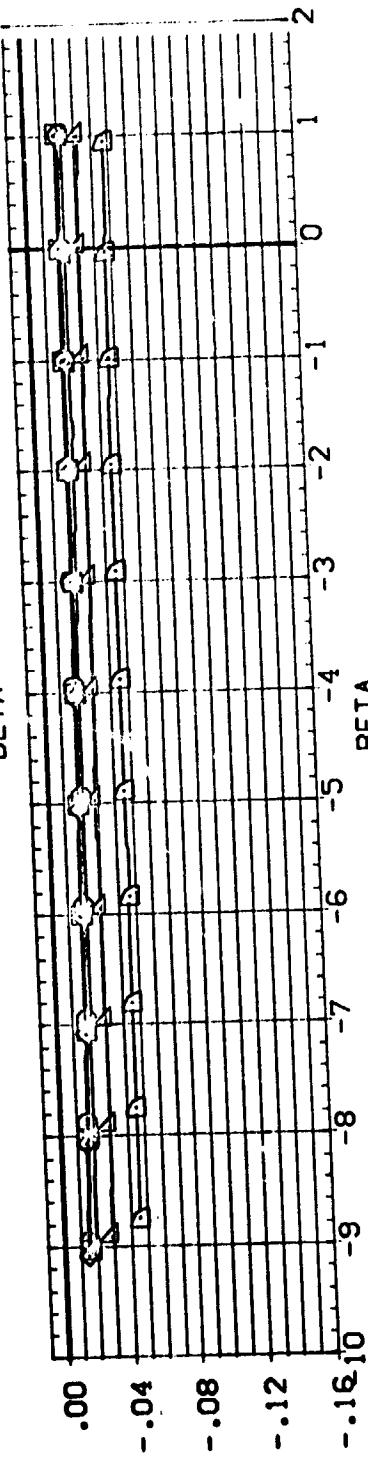
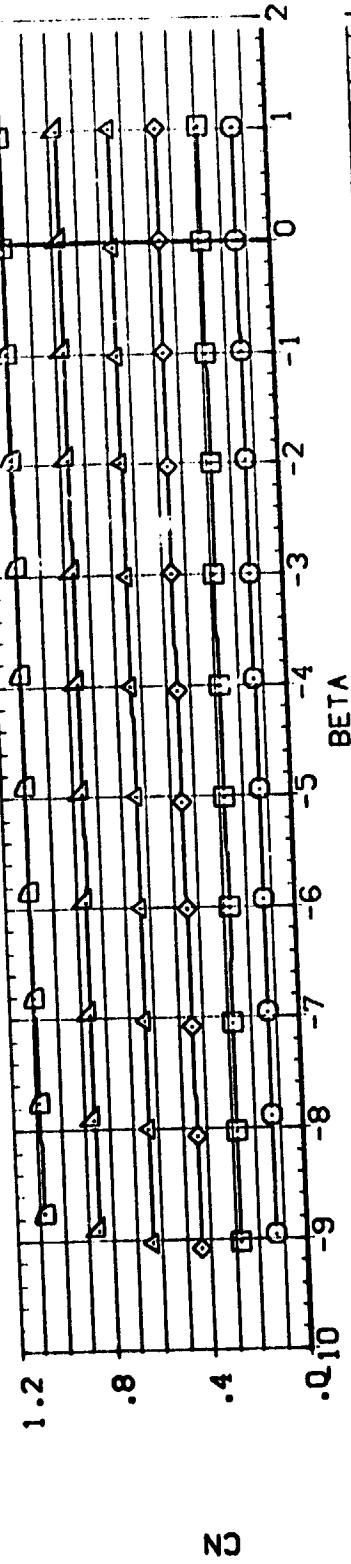


COMPARISON OF AILERON DERIVATIVES FOR OPPOSITE CONTROL DEFLECTION
 (AIRCRAFT = 1C.30)

PAGE :6

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
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RPPD12	LA-11. CHT 96. ROCKWELL CRB. CB93 V/MOD. NOSE	LREF 3.5611 SCLES
RPPD13	LA-11. CHT 96. ROCKWELL CRB. CB93 V/MOD. NOSE	XREF 7.0251 SCLES
RPPD14	LA-11. CHT 96. ROCKWELL CRB. CB93 V/MOD. NOSE	ZREF 6.2802 SCLES
RPPD15	LA-11. CHT 96. ROCKWELL CRB. CB93 V/MOD. NOSE	X2P3 Y2P3 Z2P3 SCLES
RPPD16	LA-11. CHT 96. ROCKWELL CRB. CB93 V/MOD. NOSE	SCLES

SCALE

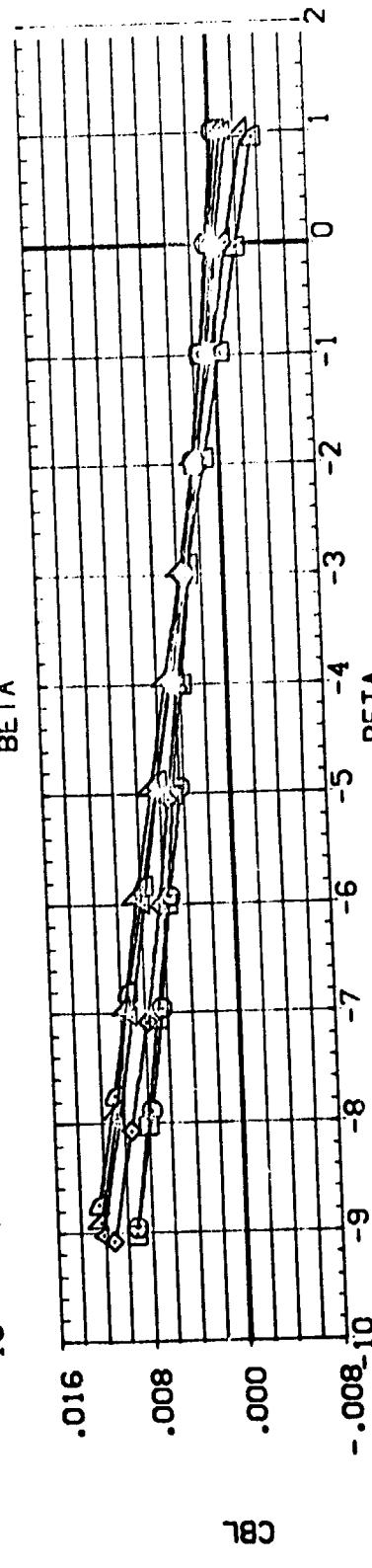
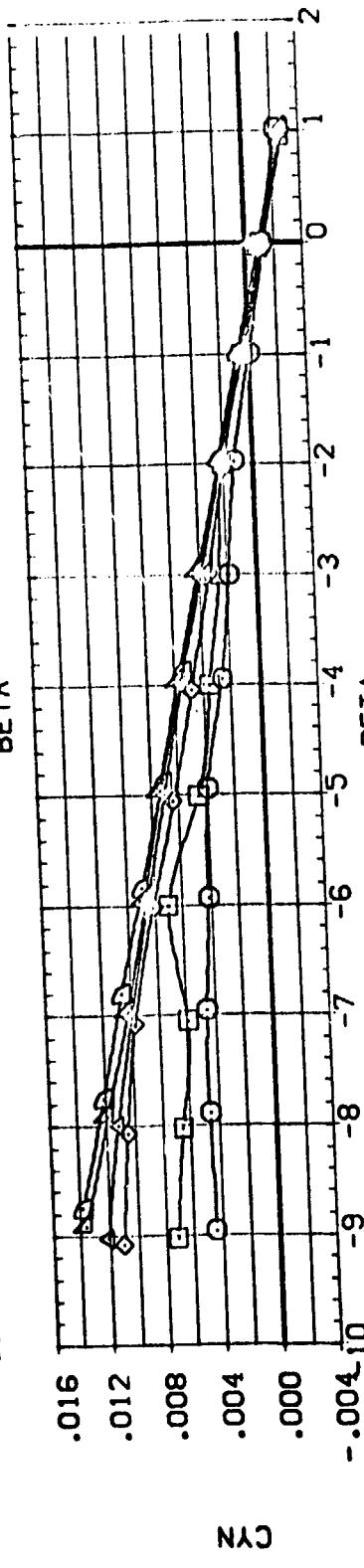
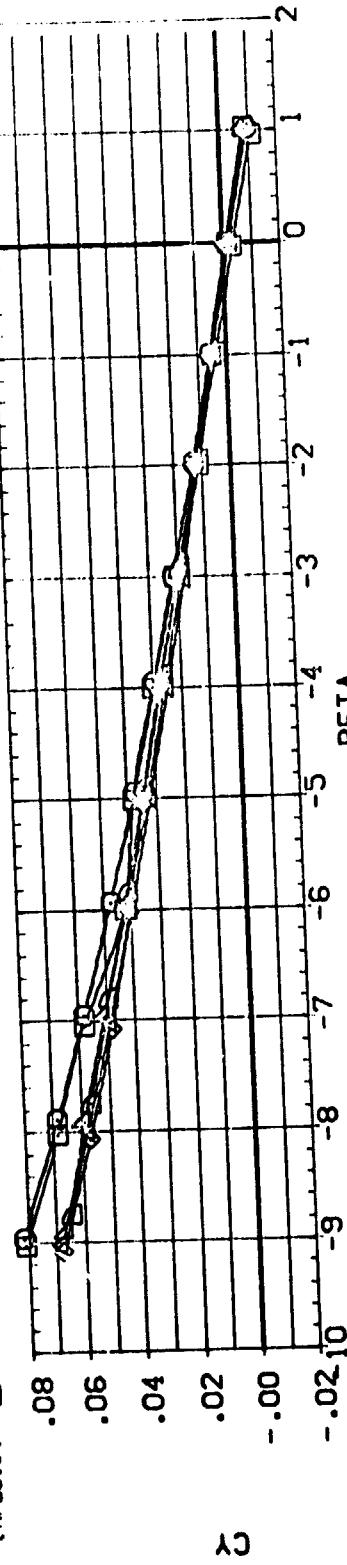


BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-10, AILERON= 0)

PAGE :7

(A) MACH = 10.30

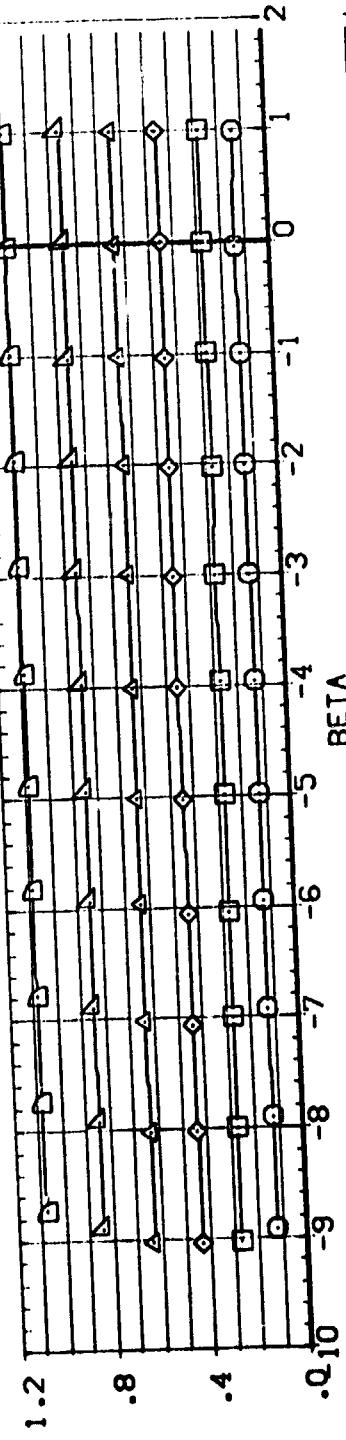
DATA SET SYMBOL CONFIGURATION DESCRIPTION SC. IN. REFERENCE INFORMATION
 RPD011 LA-11. CFH. 96. ROCKWELL CRB. 0893 V/MCD. NOSE 21.7886
 RPD012 LA-11. CFH. 96. ROCKWELL CRB. 0893 V/MCD. NOSE 3.5611
 RPD013 LA-11. CFH. 96. ROCKWELL CRB. 0893 V/MCD. NOSE 7.0251
 RPD014 LA-11. CFH. 96. ROCKWELL CRB. 0893 V/MCD. NOSE 6.0022
 RPD015 LA-11. CFH. 96. ROCKWELL CRB. 0893 V/MCD. NOSE 0.0000
 RPD016 LA-11. CFH. 96. ROCKWELL CRB. 0893 V/MCD. NOSE 0.0000
 SCALe



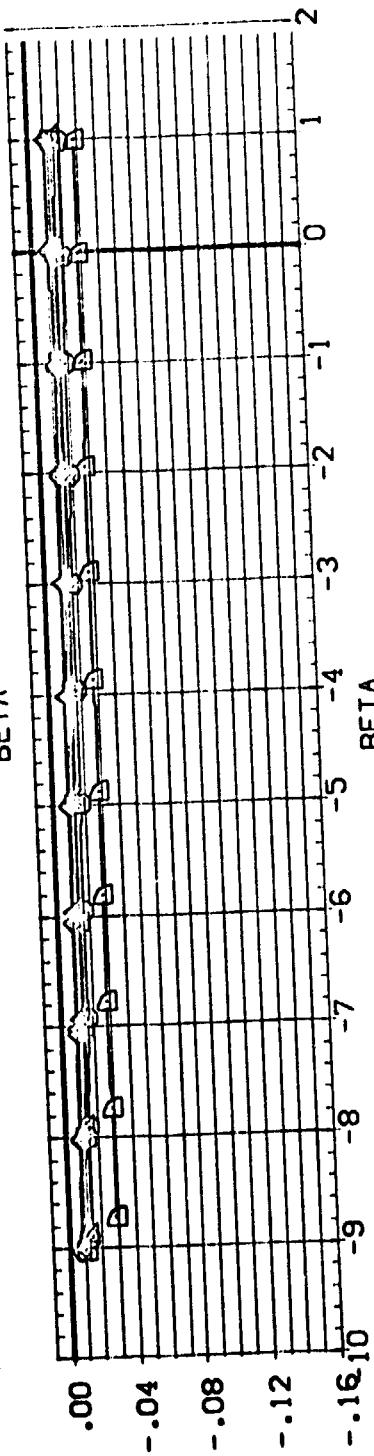
BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-10, AILERON= 0)
 MACH = 10.30

PAGE : 8

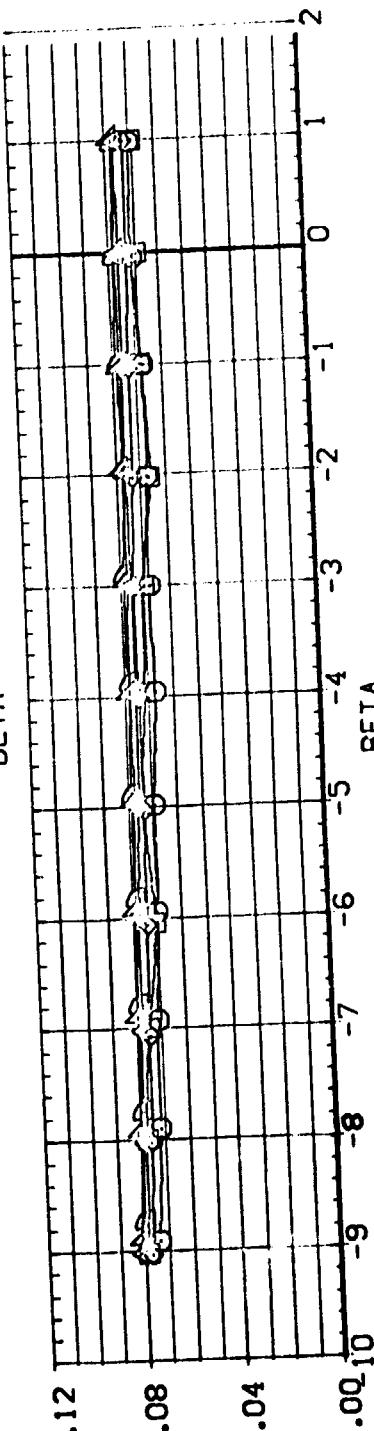
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION									
		ALPHA	ELEVTR	AIRLON	BOFLAP	SREF	SC IN.	ANGLES	ANGLES	ANGLES	ANGLES
[RP2019]	LA-11. CHT 96. ROCKWELL CRB. 0893 V/MOD. NOSE	10.000	-20.000	.000	-14.250	LREF	21.7886	3.5611	7.0251	6.2392	6.0000
[RP2020]	LA-11. CHT 96. ROCKWELL CRB. 0893 V/MOD. NOSE	15.000	-20.000	.000	-14.250	BREF					
[RP2021]	LA-11. CHT 96. ROCKWELL CRB. 0893 V/MOD. NOSE	20.000	-20.000	.000	-14.250	XRP					
[RP2022]	LA-11. CHT 96. ROCKWELL CRB. 0893 V/MOD. NOSE	25.000	-20.000	.000	-14.250	YRP					
[RP2023]	LA-11. CHT 96. ROCKWELL CRB. 0893 V/MOD. NOSE	30.000	-20.000	.000	-14.250	ZRP					
[RP2024]	LA-11. CHT 96. ROCKWELL CRB. 0893 V/MOD. NOSE	35.000	-20.000	.000	-14.250	SCALE					



CN



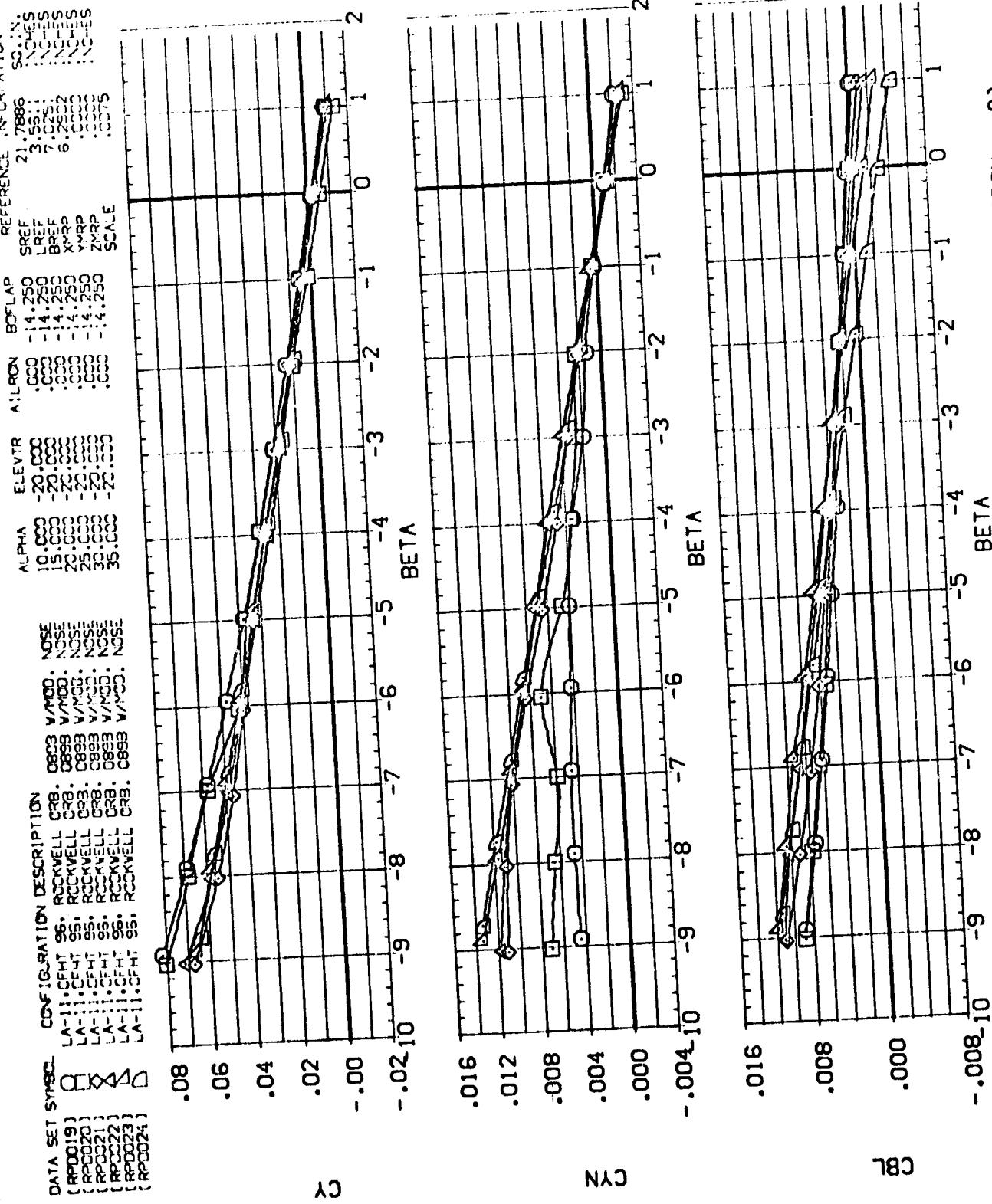
CA



CA

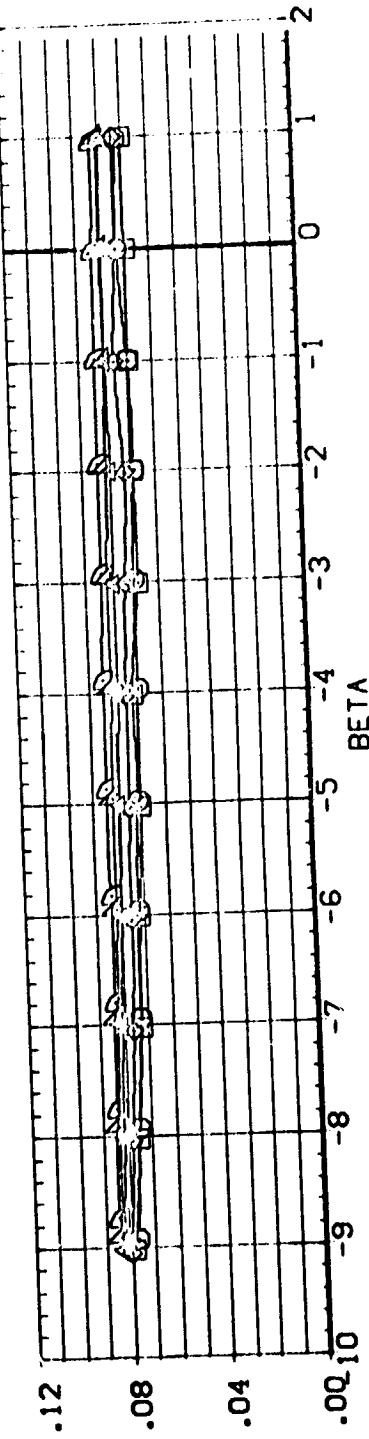
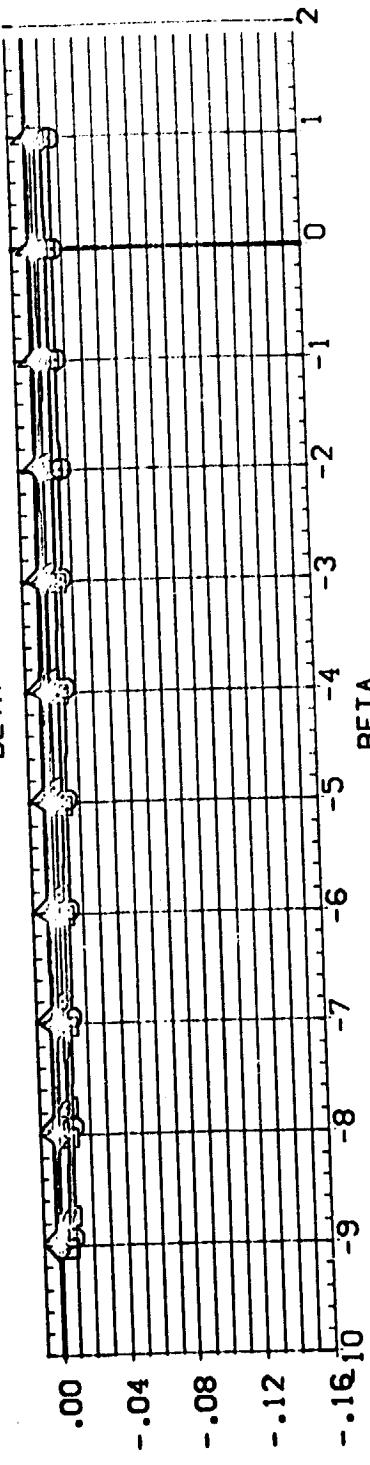
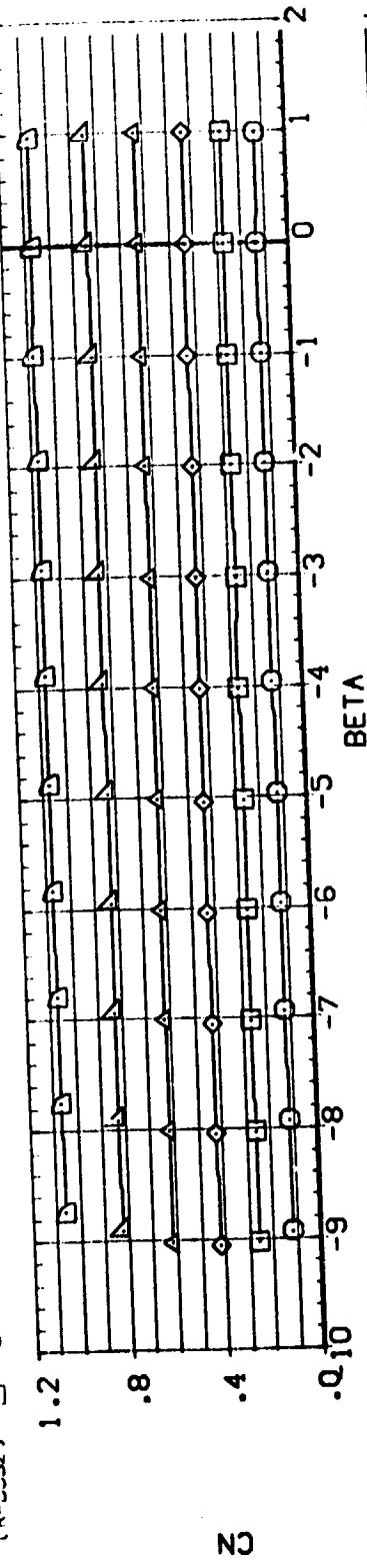
BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-20, AILERON= 0)
 (A) MACH = 10.30
 PAGE : 9

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RPD019) L-1. CFH 96. ROCKWELL CRB. 0893 V/MOD. NOSE
 (RPD020) L-1. CFH 95. ROCKWELL CRB. 0893 V/MOD. NOSE
 (RPD021) L-1. CFH 95. ROCKWELL CRB. 0893 V/MOD. NOSE
 (RPD022) L-1. CFH 95. ROCKWELL CRB. 0893 V/MOD. NOSE
 (RPD023) L-1. CFH 95. ROCKWELL CRB. 0893 V/MOD. NOSE
 (RPD024) L-1. CFH 95. ROCKWELL CRB. 0893 V/MOD. NOSE



BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-20, AILERON= 0)
 (A)MACH = 10.30
 PAGE 2C

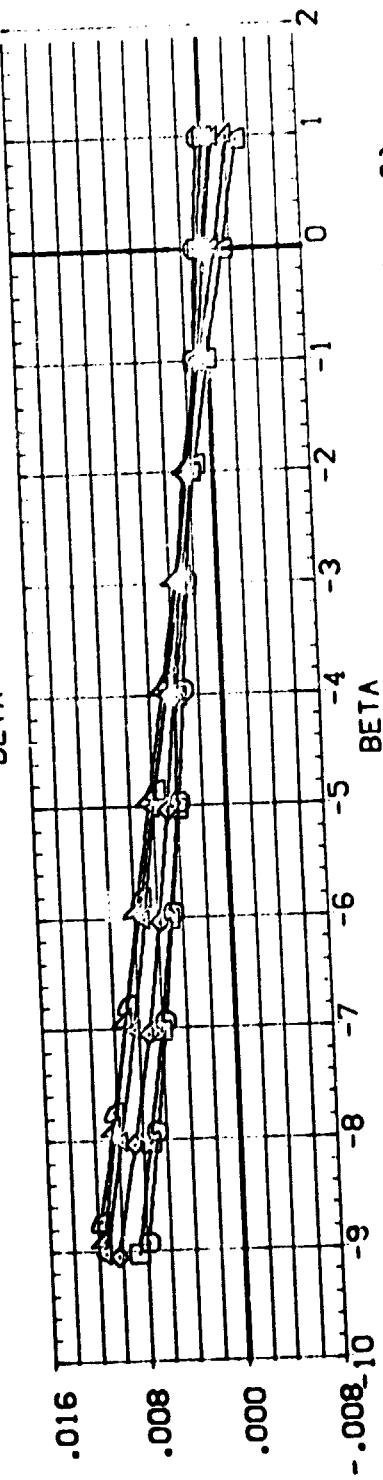
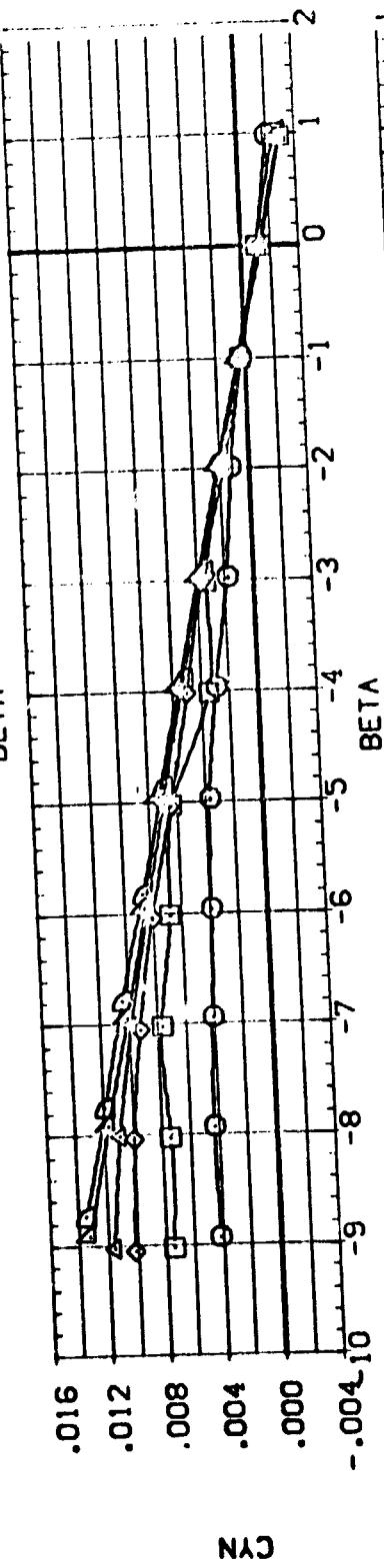
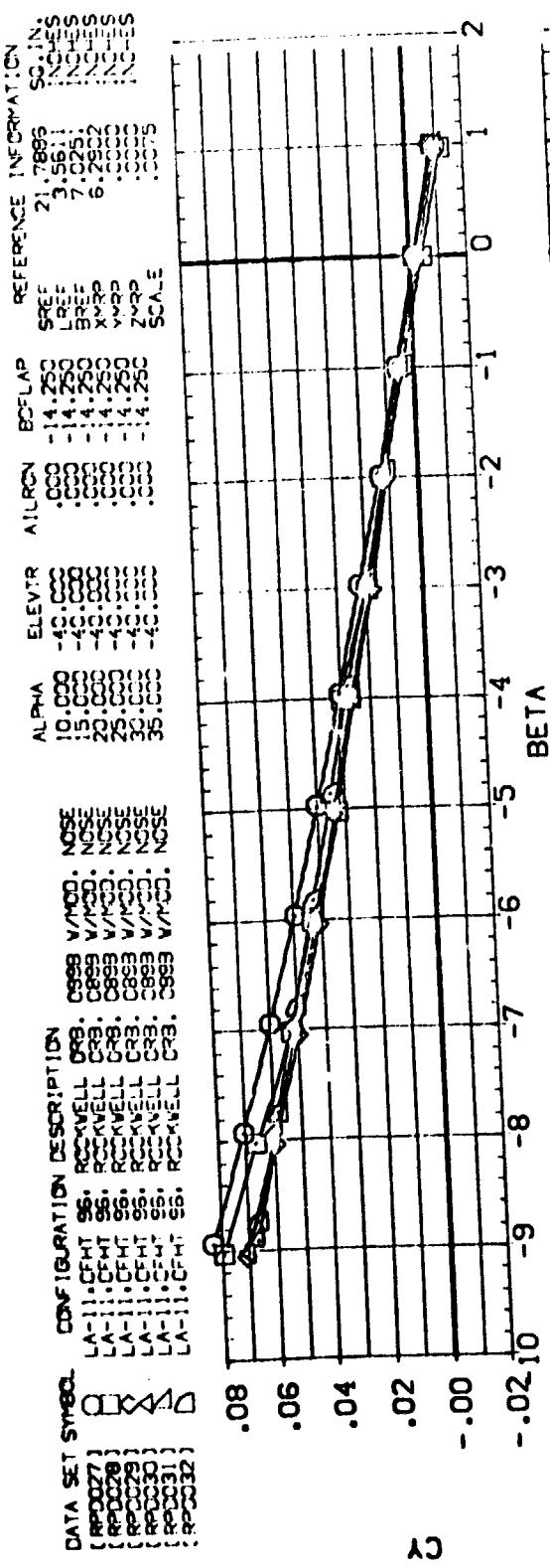
DATA SET	SET NO.	CONFIGURATION	DESCRIPTION	ANGLE OF ATTITUDE	ANGLE OF SIDE-SLIP	ANGLE OF AILERON	ANGLE OF RUDDER	ANGLE OF ELEVATOR	ANGLE OF BAIL FLAP	REFERENCE SURFACE	REFERENCE INFORMATION
(RP0027)	1	LA-11	CFT 96, ROCKWELL CRB.	.0893	V/MOD.	NOSE		10.00	-40.000	SREF	21.7885
(RP0028)	2	LA-11	CFT 96, ROCKWELL CRB.	.0893	V/MOD.	NOSE		15.00	-40.000	LREF	3.5811
(RP0029)	3	LA-11	CFT 95, ROCKWELL CRB.	.0993	V/MOD.	NOSE		20.00	-40.000	BREF	7.0261
(RP0030)	4	LA-11	CFT 95, ROCKWELL CRB.	.0893	V/MOD.	NOSE		25.00	-40.000	XMRD	6.0000
(RP0031)	5	LA-11	CFT 95, ROCKWELL CRB.	.0893	V/MOD.	NOSE		30.00	-40.000	YMRD	1.0000
(RP0032)	6	LA-11	CFT 95, ROCKWELL CRB.	.0893	V/MOD.	NOSE		35.00	-40.000	ZMRD	.0000
										SCALE	.0000



BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-40, AILERON= 0)
(MACH = 10.30)

PAGE 2:

DATA SET SEQ. CONFIGURATION DESCRIPTION C939 V/HDO. NOSE
 [RPDC27] LA-11.CHT 96. ROCKWELL C93. C939 V/HDO. NOSE
 [RPDC28] LA-11.CHT 96. ROCKWELL C93. C939 V/HDO. NOSE
 [RPDC29] LA-11.CHT 96. ROCKWELL C93. C939 V/HDO. NOSE
 [RPDC30] LA-11.CHT 96. ROCKWELL C93. C939 V/HDO. NOSE
 [RPDC31] LA-11.CHT 96. ROCKWELL C93. C939 V/HDO. NOSE
 [RPDC32] LA-11.CHT 96. ROCKWELL C93. C939 V/HDO. NOSE

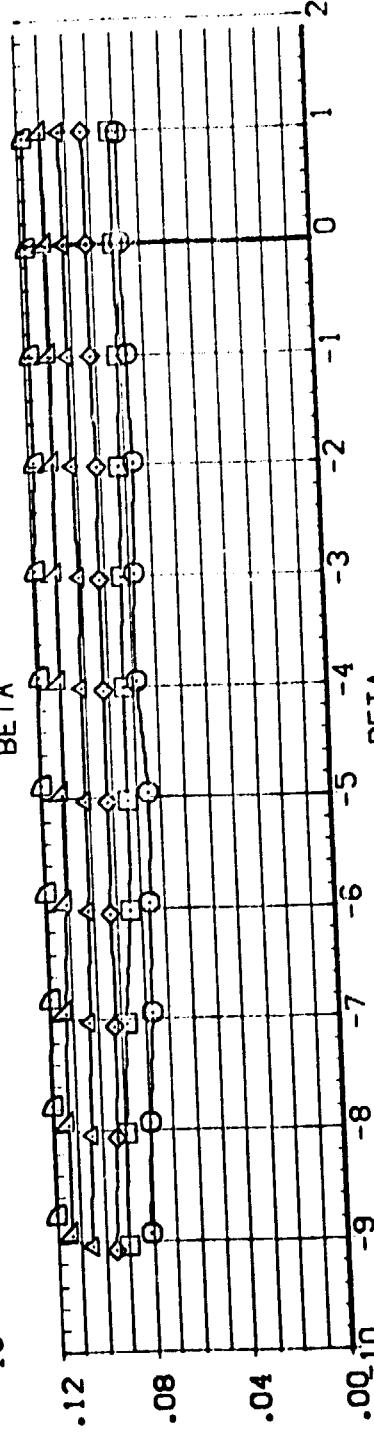
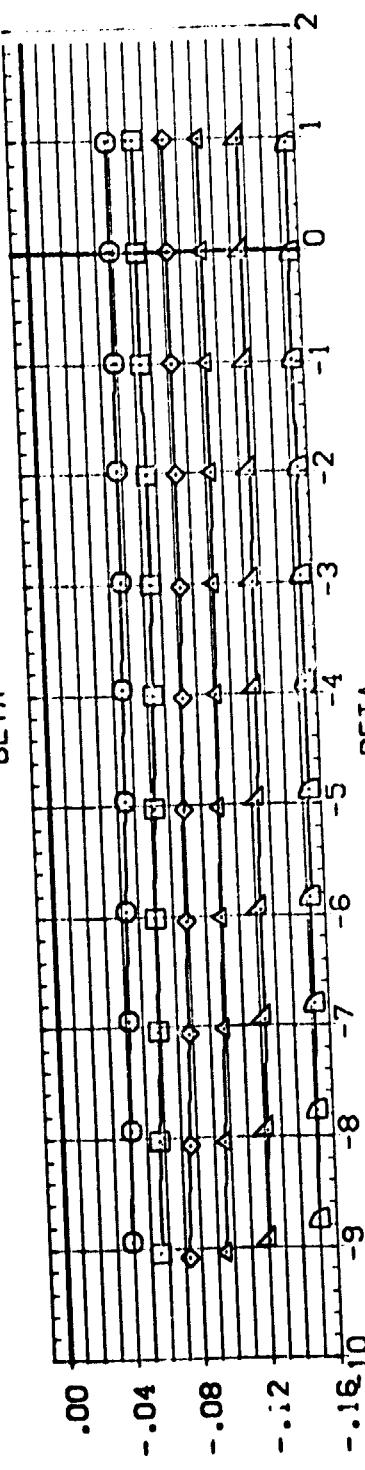
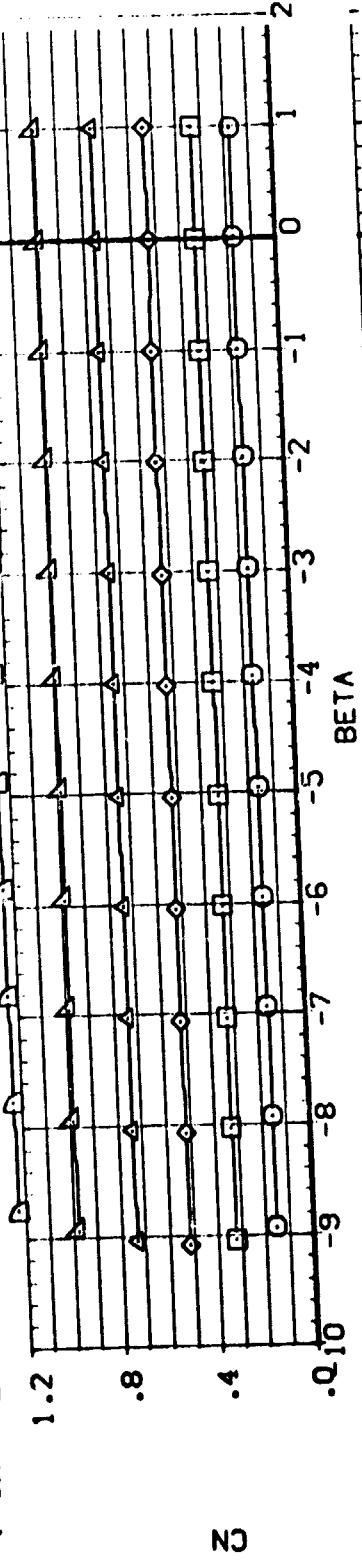


BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-40, AILERON= 0)
 $(\text{MACH} = 1.0)$

PAGE 22

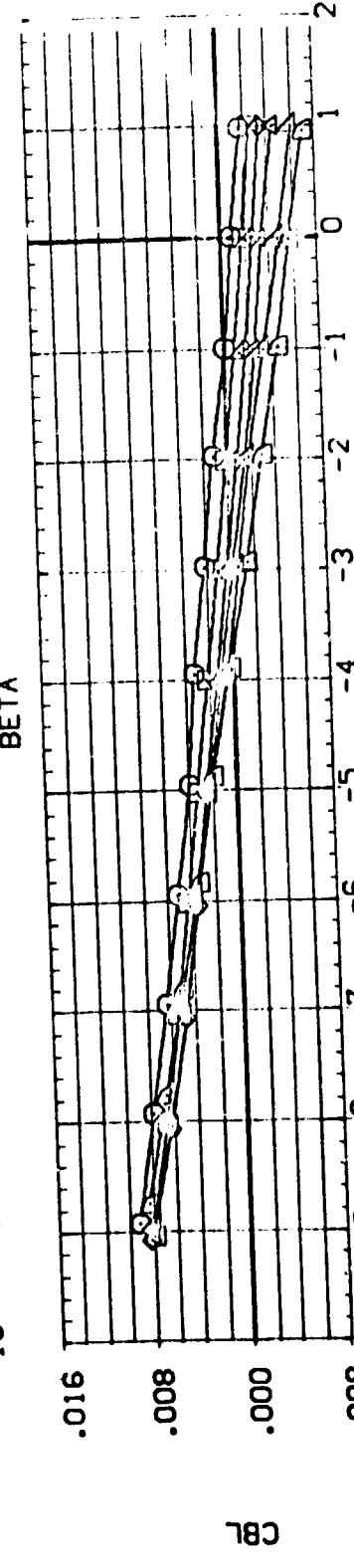
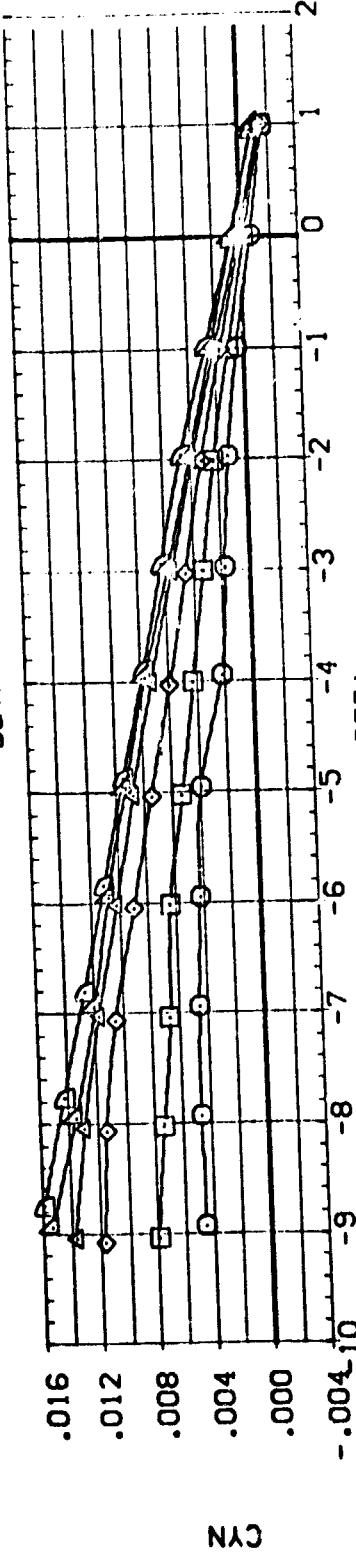
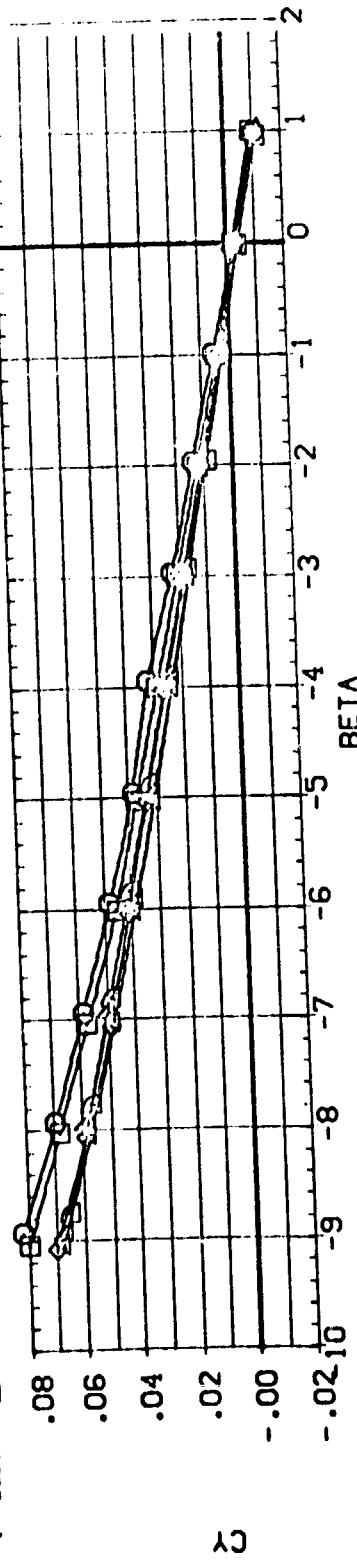
DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RP0030]	LA-11-CFH	95. ROCKWELL CRB.	.0893	VNO.	NOSE
[RP0038]	LA-11-CFH	95. ROCKWELL CRB.	.0893	VNO.	NOSE
[RP0038]	LA-11-CFH	95. ROCKWELL CRB.	.0893	VNO.	NOSE
[RP0037]	LA-11-CFH	95. ROCKWELL CRB.	.0893	VNO.	NOSE
[RP0035]	LA-11-CFH	95. ROCKWELL CRB.	.0893	VNO.	NOSE



BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR= 10, AILERON= 0)
 $(\Delta MACH = 10, 30)$

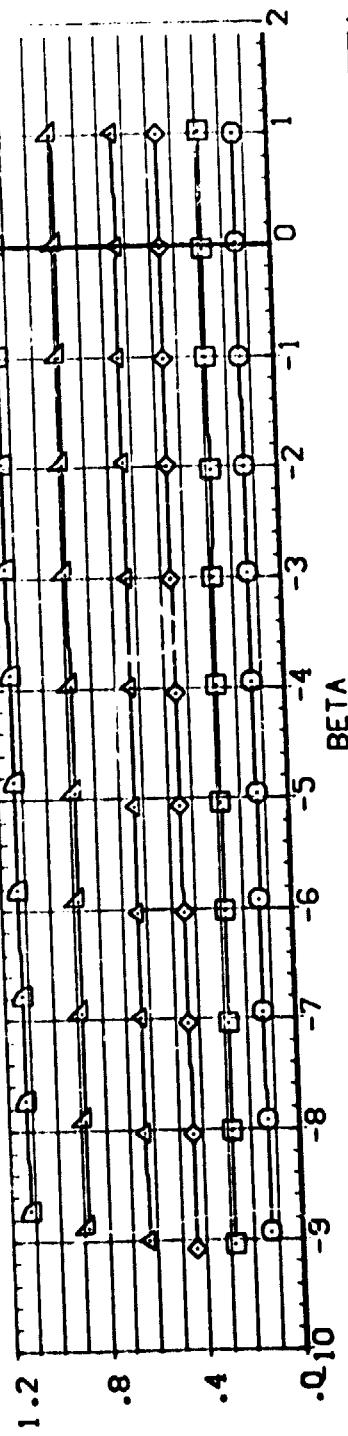
DATA SET SYMB.	CONFIGURATION DESCRIPTION	CRB.	CG93 V/MC0.	NOSE	SC:1
[RPDO40]	LA-1.0H 90° ROCKWELL CRB.	.0889	V/MC0.	NOSE	21.7885
[RPDO39]	LA-1.0H 90° ROCKWELL CRB.	.0889	V/MC0.	NOSE	3.5611
[RPDO38]	LA-1.0H 90° ROCKWELL CRB.	.0889	V/MC0.	NOSE	7.8251
[RPDO37]	LA-1.0H 90° ROCKWELL CRB.	.0889	V/MC0.	NOSE	6.2832
[RPDO36]	LA-1.0H 90° ROCKWELL CRB.	.0889	V/MC0.	NOSE	1.0000
[RPDO35]	LA-1.0H 90° ROCKWELL CRB.	.0889	V/MC0.	NOSE	.0075



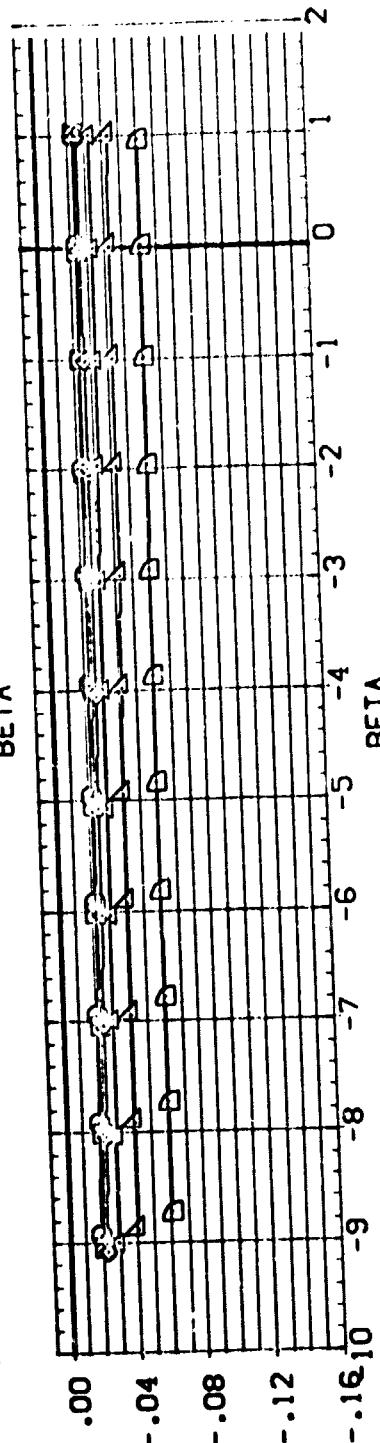
BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR= 10, AILERON= 0)
 $(V/MACH = 10.30)$

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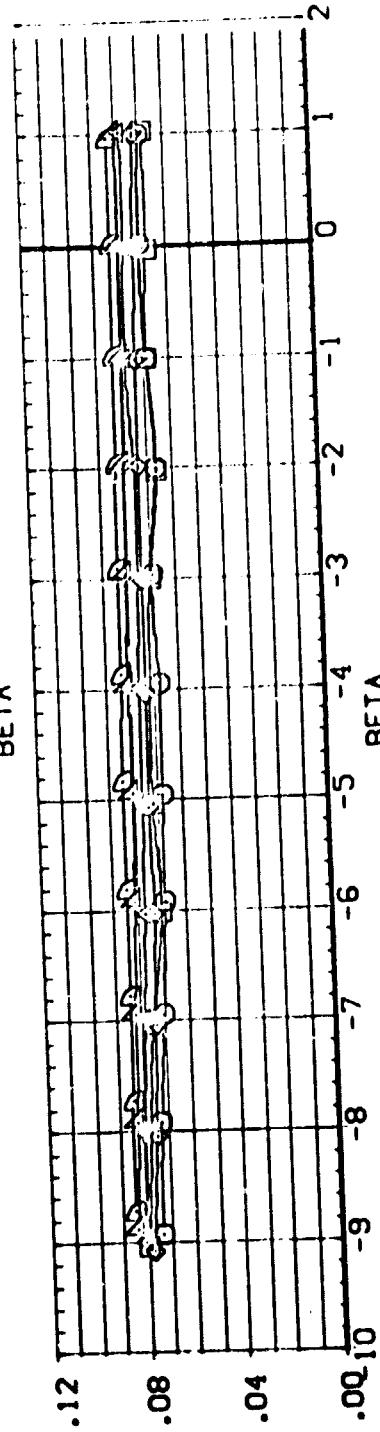
DATA SET INDEX	CONFIGURATION DESCRIPTION	SCALES	REFERENCE INFORMATION
[RP0043]	CENT. CFT 95, ROCKWELL CRB. C833 V/MOD. NOSE	1.561	2: 7886
[RP0044]	CENT. CFT 95, ROCKWELL CRB. C833 V/MOD. NOSE	1.561	LREF -14,250
[RP0045]	CENT. CFT 95, ROCKWELL CRB. C833 V/MOD. NOSE	1.561	LREF -14,250
[RP0046]	CENT. CFT 95, ROCKWELL CRB. C833 V/MOD. NOSE	1.561	XREF -14,250
[RP0047]	CENT. CFT 95, ROCKWELL CRB. C833 V/MOD. NOSE	1.561	XREF -14,250
[RP0048]	CENT. CFT 95, ROCKWELL CRB. C833 V/MOD. NOSE	1.561	ZREF -14,250



C_n



C_{lm}

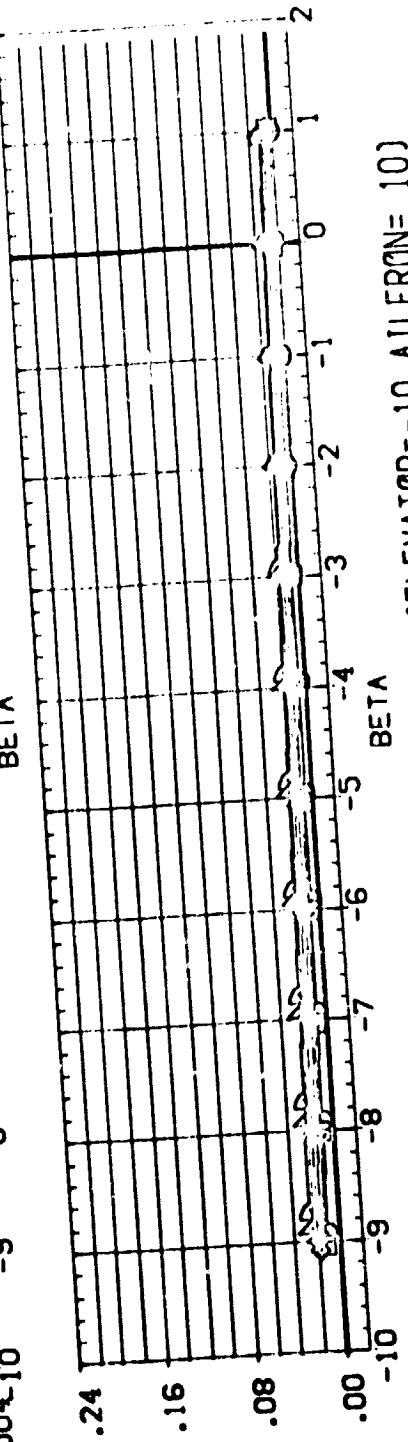
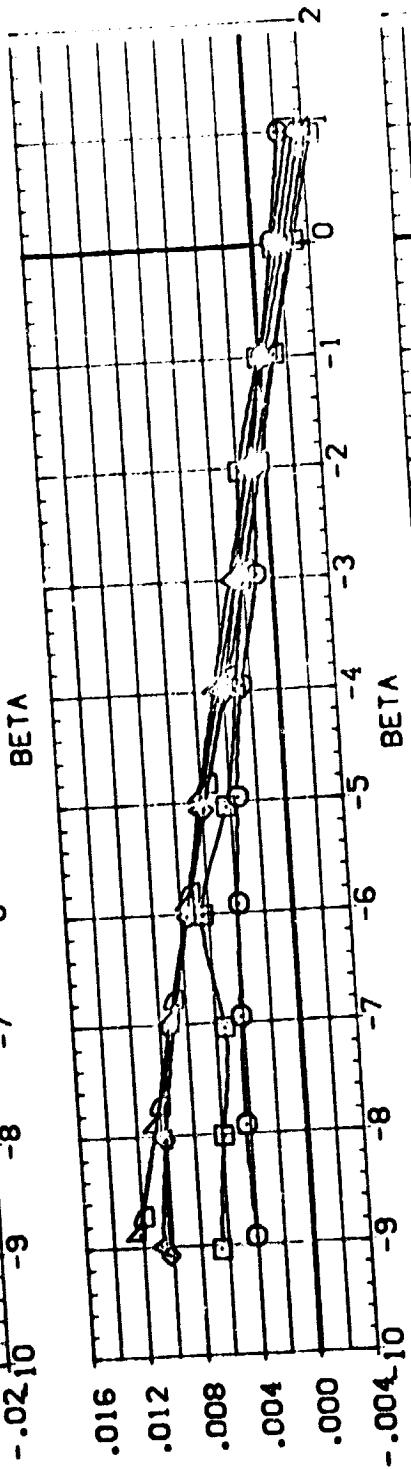
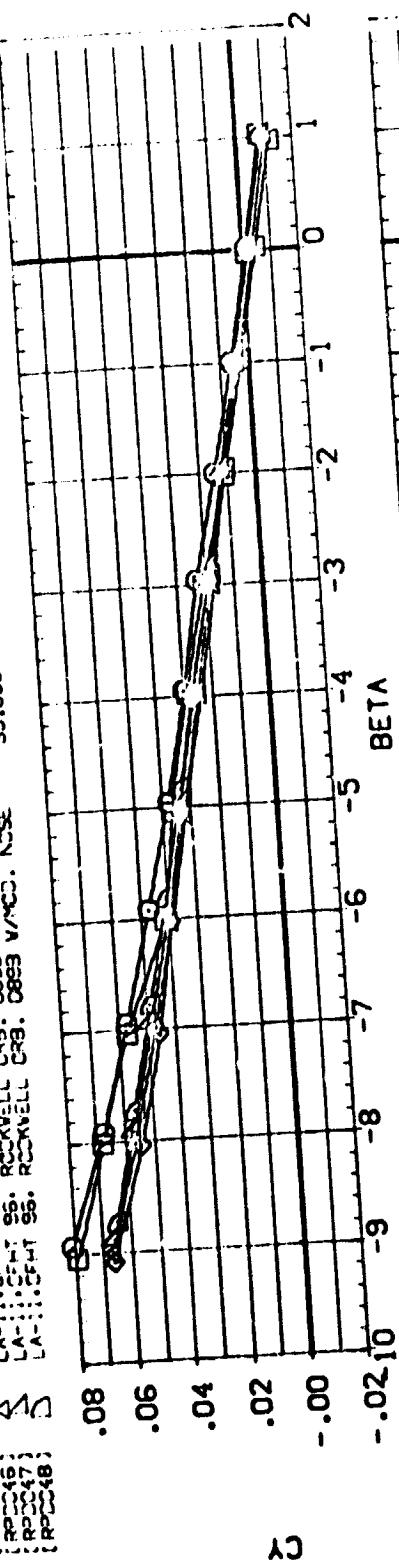


C_a

BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-10, AILERON= 10)

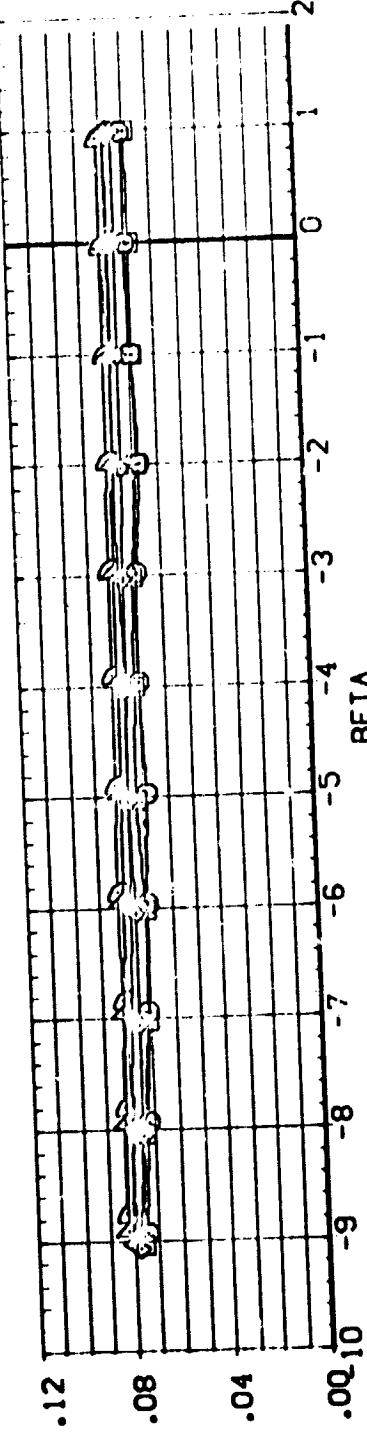
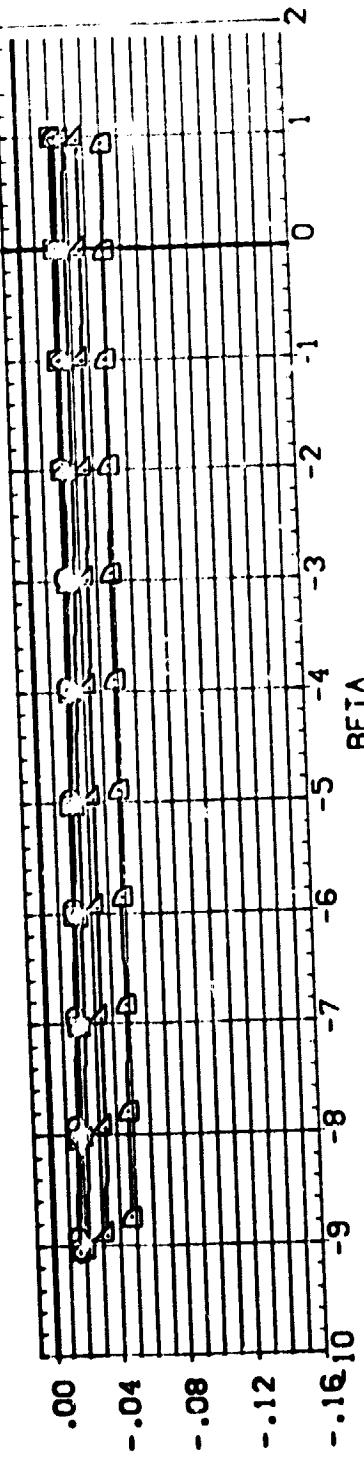
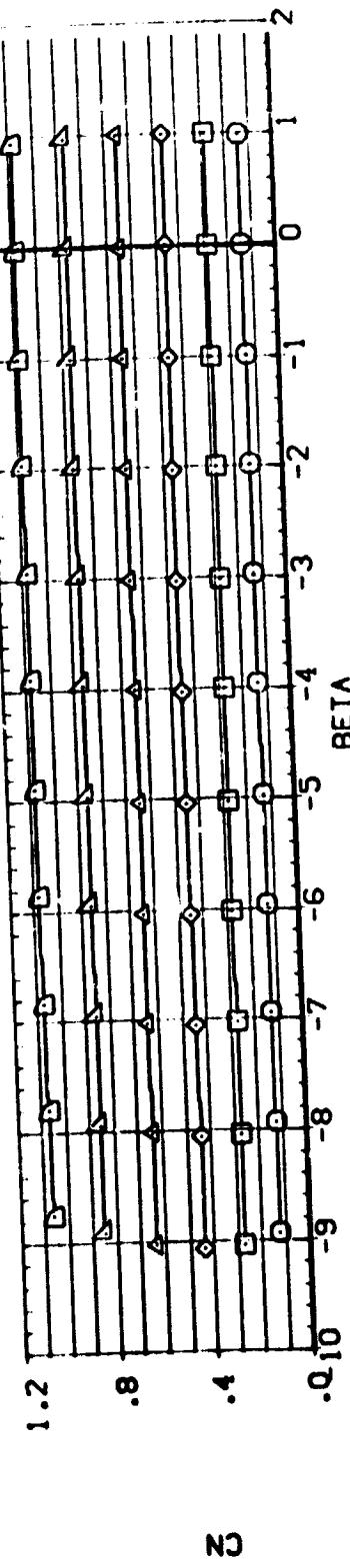
(MACH = 10.30

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	VMO _D	VMO _C	NOSE	REFERENCE	SCALES
[RPDC43]	CFM 95.	ROCKWELL CRB.	.0893	.0893	NOSE	10.000	1.4.250
[RPDC44]	CFM 96.	ROCKWELL CRB.	.0893	.0893	NOSE	10.000	1.4.250
[RPDC45]	CFM 96.	ROCKWELL CRB.	.0893	.0893	NOSE	20.000	1.4.250
[RPDC46]	CFM 96.	ROCKWELL CRB.	.0893	.0893	NOSE	25.000	1.4.250
[RPDC47]	CFM 96.	ROCKWELL CRB.	.0893	.0893	NOSE	30.000	1.4.250
[RPDC48]	CFM 96.	ROCKWELL CRB.	.0893	.0893	NOSE	35.000	1.4.250



BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR = -10, AILERON = 10)
 $(\Delta)_{MACH} = 10.30$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	Coeff.	VIND.	ANGLE	AILERON	REFERENCE INFORMATION
PP0051	LA-11.5HT 95° ROCKWELL	.0893	VIND.	NOSE	-10.000	-10.000
PP0052	LA-11.5HT 96° ROCKWELL	.0893	VIND.	NOSE	-10.000	-10.000
PP0053	LA-11.5HT 97° ROCKWELL	.0893	VIND.	NOSE	-10.000	-10.000
PP0054	LA-11.5HT 98° ROCKWELL	.0893	VIND.	NOSE	-10.000	-10.000
PP0055	LA-11.5HT 99° ROCKWELL	.0893	VIND.	NOSE	-10.000	-10.000
PP0056	LA-11.5HT 100° ROCKWELL	.0893	VIND.	NOSE	-10.000	-10.000

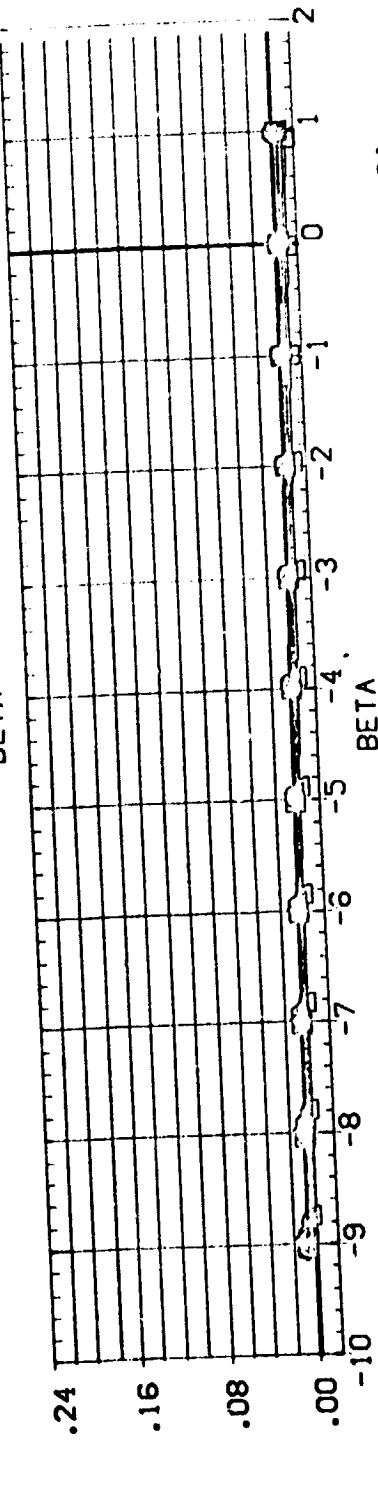
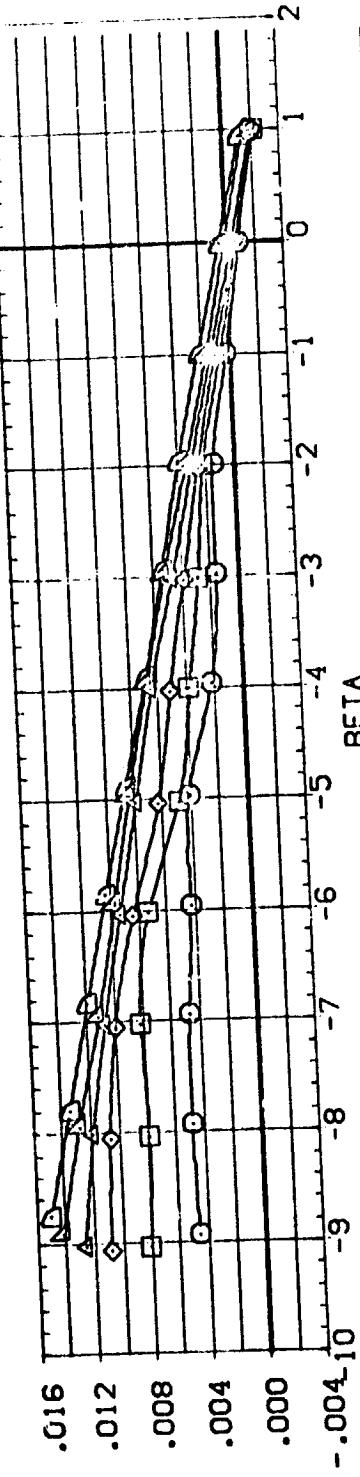
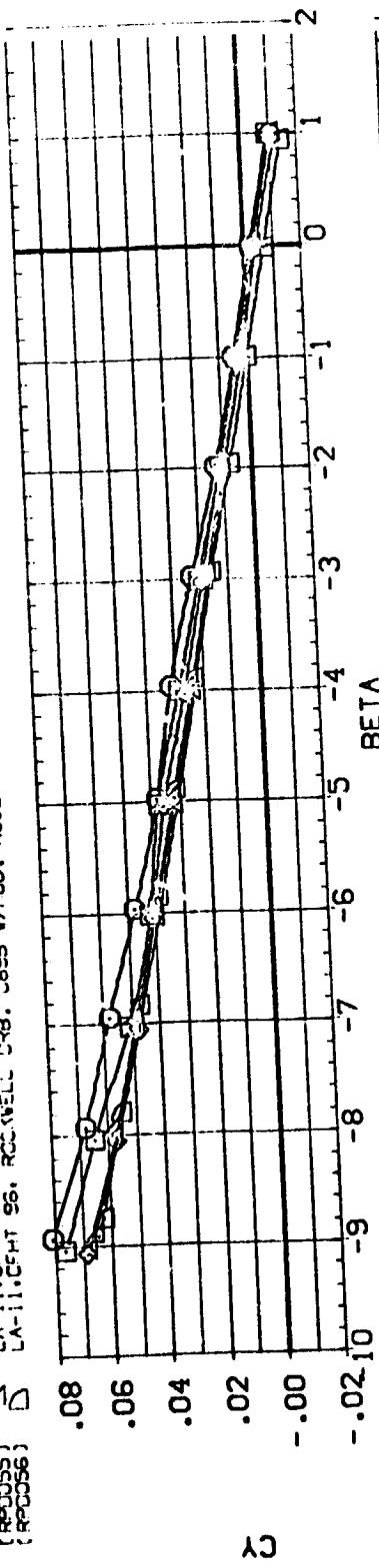


BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-10, AILERON=-10)

(Δ MACH = 10.30)

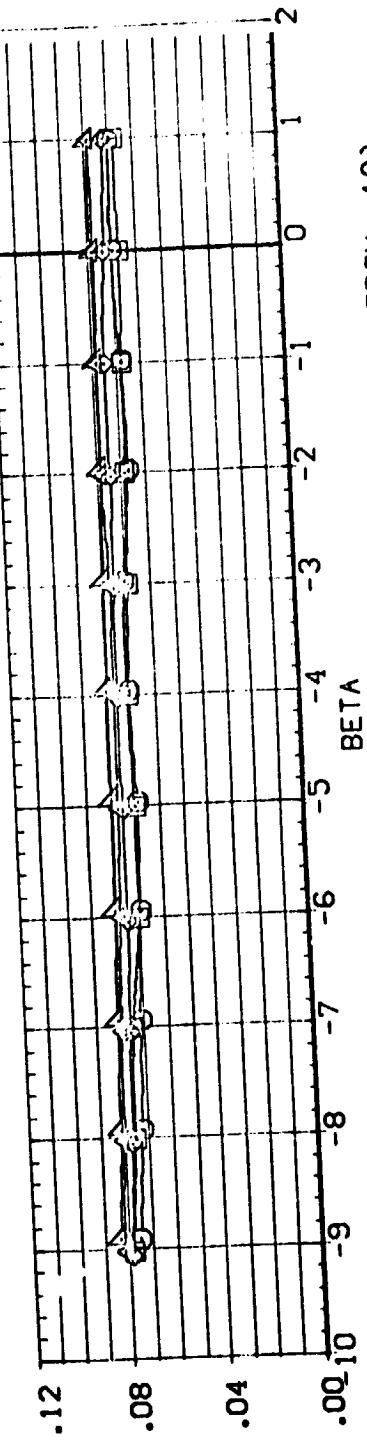
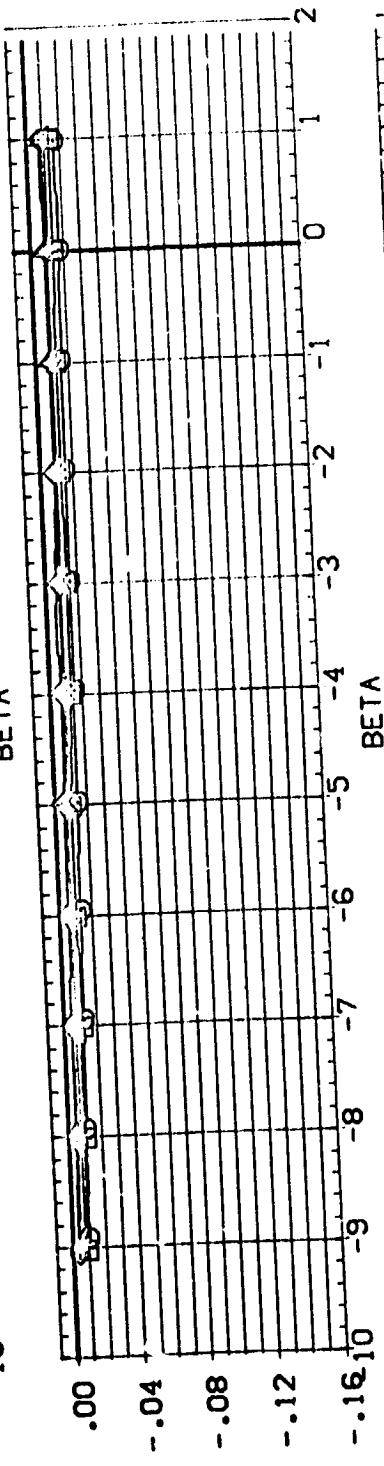
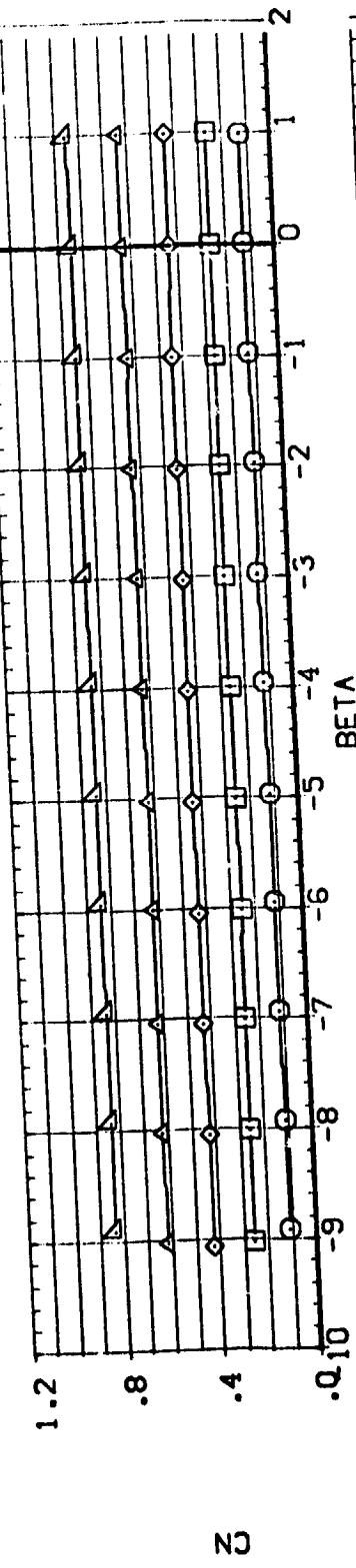
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
[RP0051]	LA-11, CHT 95, ROCKWELL CRB.	C893 V/MOD. NOSE
[RP0052]	LA-11, CHT 95, ROCKWELL CRB.	C893 V/MOD. NOSE
[RP0053]	LA-11, CHT 95, ROCKWELL CRB.	C893 V/MOD. NOSE
[RP0054]	LA-11, CHT 95, ROCKWELL CRB.	C893 V/MOD. NOSE
[RP0055]	LA-11, CHT 95, ROCKWELL CRB.	C893 V/MOD. NOSE
[RP0056]	LA-11, CHT 95, ROCKWELL CRB.	C893 V/MOD. NOSE



BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-10, AILERON=-10)
 $(\text{A})\text{MACH} = 10.30$

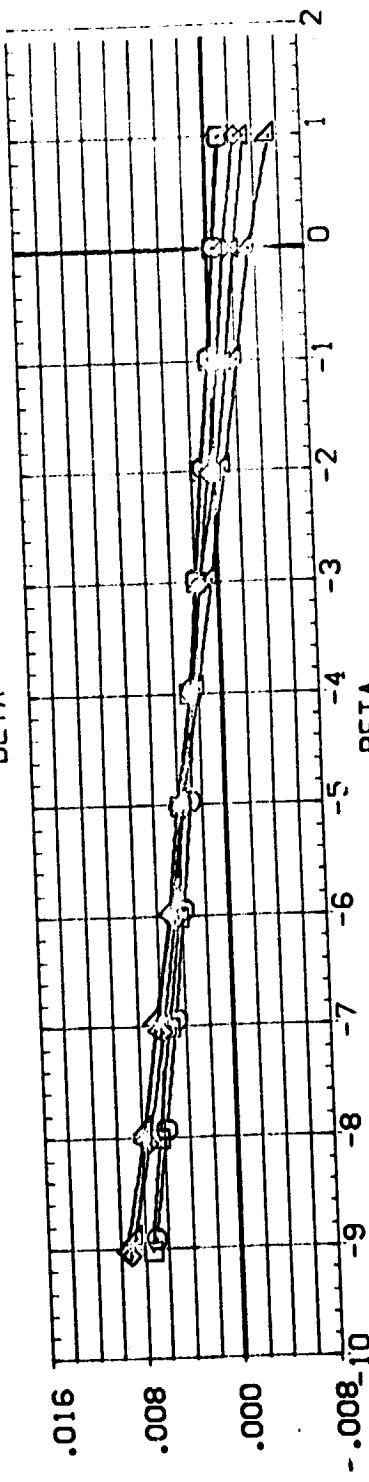
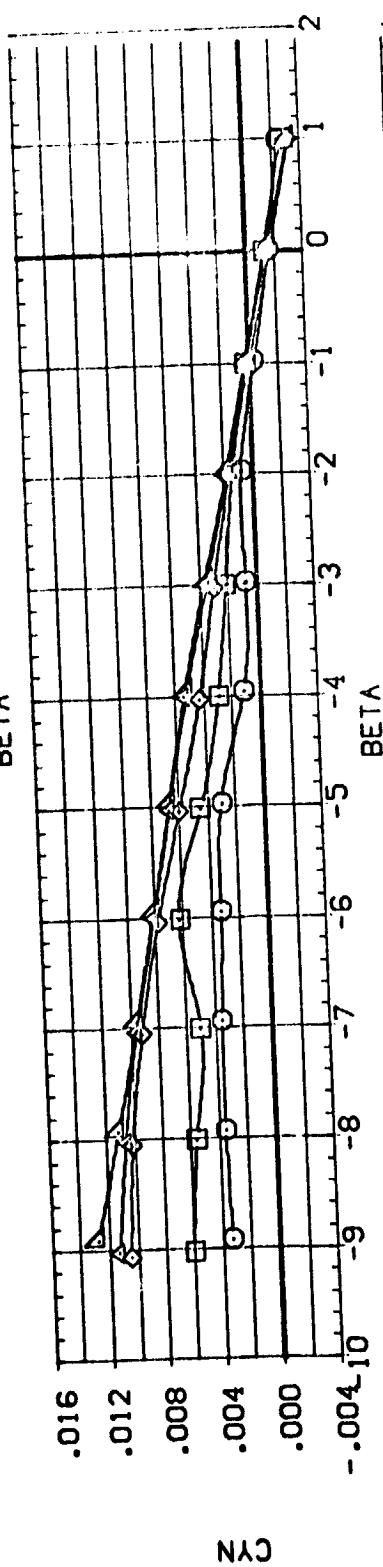
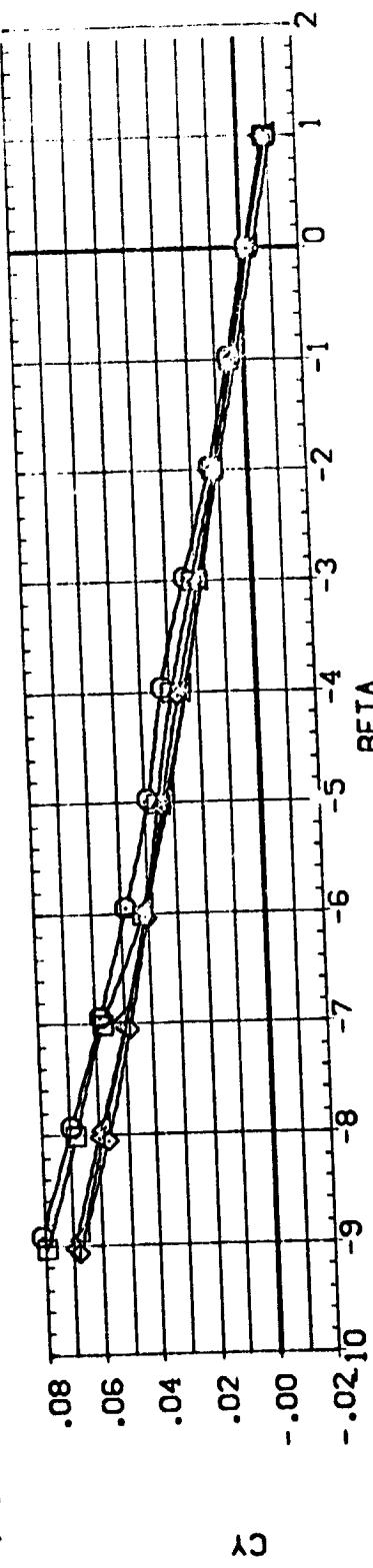
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVTR	AILTRN	BOFLAP	REFERENCE	INFORMATION
[RFDD059]	LA-11.CFH-96, ROCKWELL CRB. C899 V/MOD.	10.000	-30.000	-10.000	-14.250	SREF	21.7885
[RPDC060]	LA-11.CFH-96, ROCKWELL CRB. C893 V/MOD.	15.000	-30.000	-10.000	-14.250	LREF	3.5611
[RPDC061]	LA-11.CFH-96, ROCKWELL CRB. C893 V/MOD.	20.000	-30.000	-10.000	-14.250	BREF	7.0261
[RPDC062]	LA-11.CFH-96, ROCKWELL CRB. C893 V/MOD.	25.000	-30.000	-10.000	-14.250	XRP	6.2802
[RPDC063]	LA-11.CFH-96, ROCKWELL CRB. C893 V/MOD.	30.000	-30.000	-10.000	-14.250	YRP	1.0000
					-12.000	ZRP	.0000
						SCALE	.0075



BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-30, AILERON=-10)
 $(\alpha)_{MACH} = 10.30$

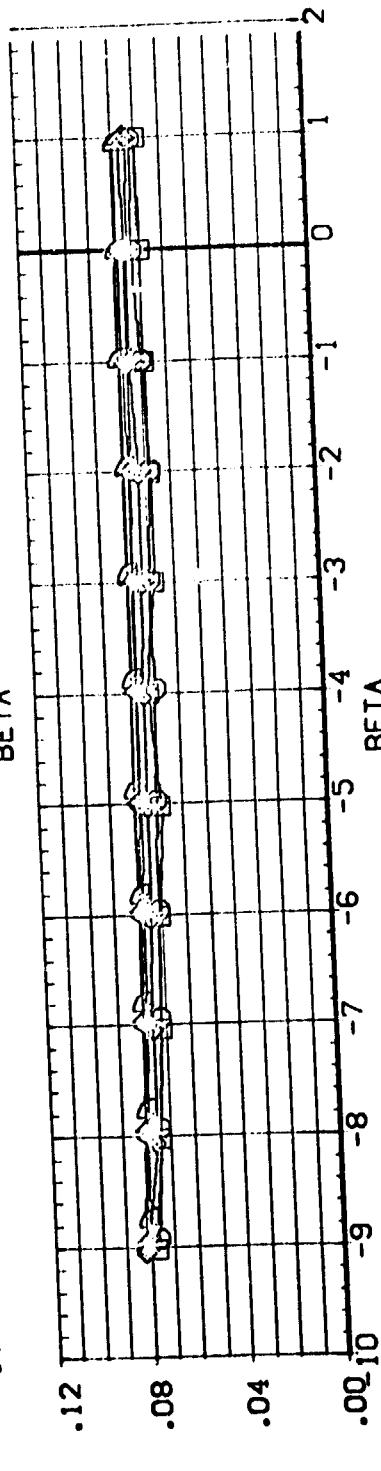
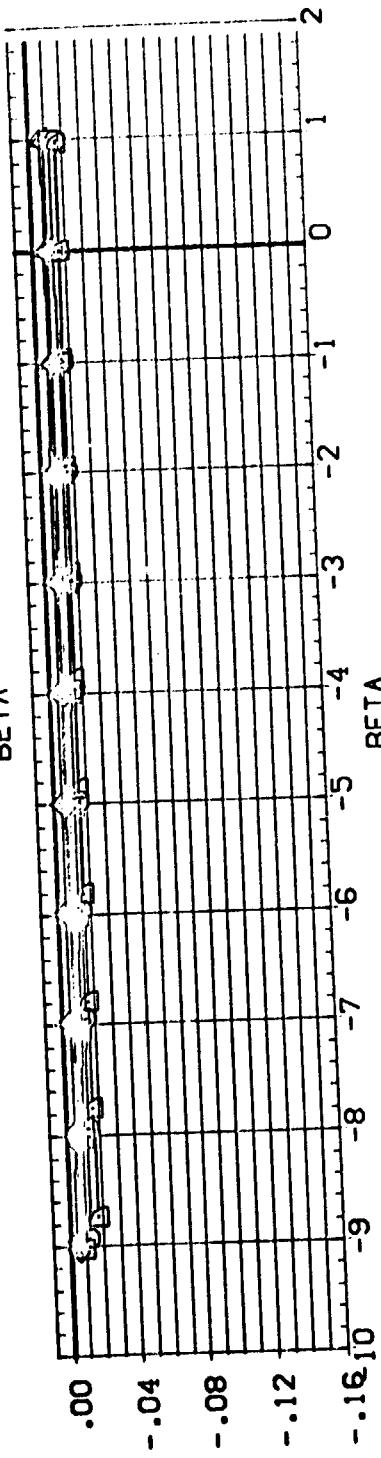
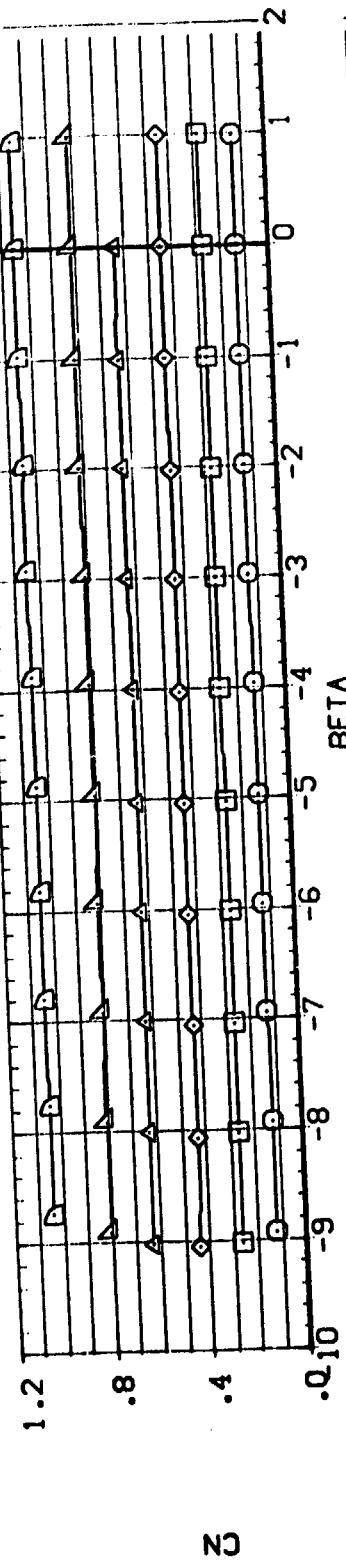
PAGE 29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ELEVTR	AILRDN	BOFLAP	REFERENCE INFORMATION
	ALPHA	BETA				
(RP2059)	LA-11. CHT 96, ROCKWELL CRB.	.089 V/MOD.	NOSE	10.000	-30.000	2: 7.885 SC: 1.15
(RP2060)	LA-11. CHT 96, ROCKWELL CRB.	.089 V/MOD.	NOSE	15.000	-30.000	3: 5.511 SC: 1.15
(RP2061)	LA-11. CHT 96, ROCKWELL CRB.	.089 V/MOD.	NOSE	20.000	-30.000	7: C25: SC: 1.15
(RP2062)	LA-11. CHT 96, ROCKWELL CRB.	.089 V/MOD.	NOSE	25.000	-30.000	6: 2.802 SC: 1.15
(RP2063)	LA-11. CHT 96, ROCKWELL CRB.	.089 V/MOD.	NOSE	30.000	-30.000	10: 0.000 SC: 1.15
						YVRP .0000 ZVRP .0000 XVRP .0000 SCALE .0075



BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-30, AILERON=-10)
 $(\text{A})\text{MACH} = 10.30$

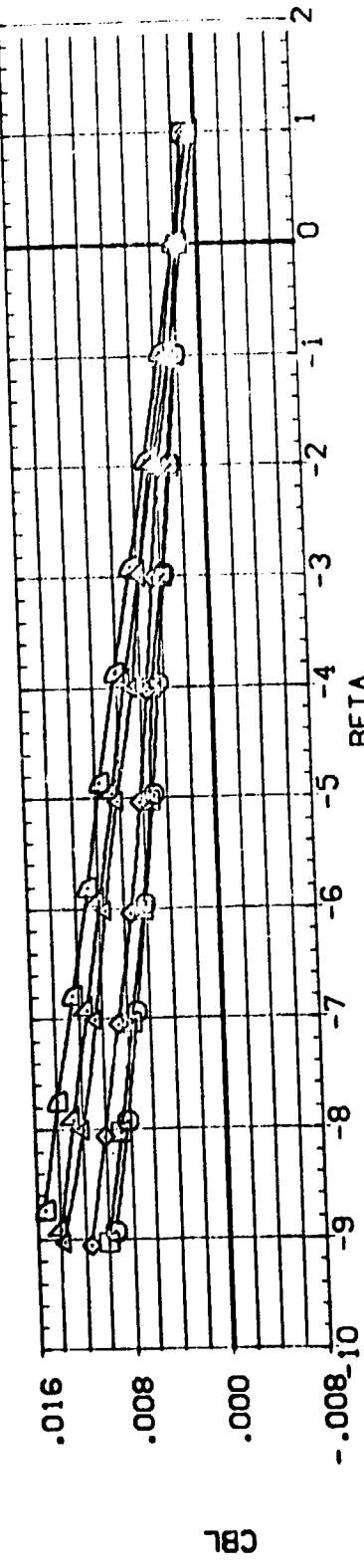
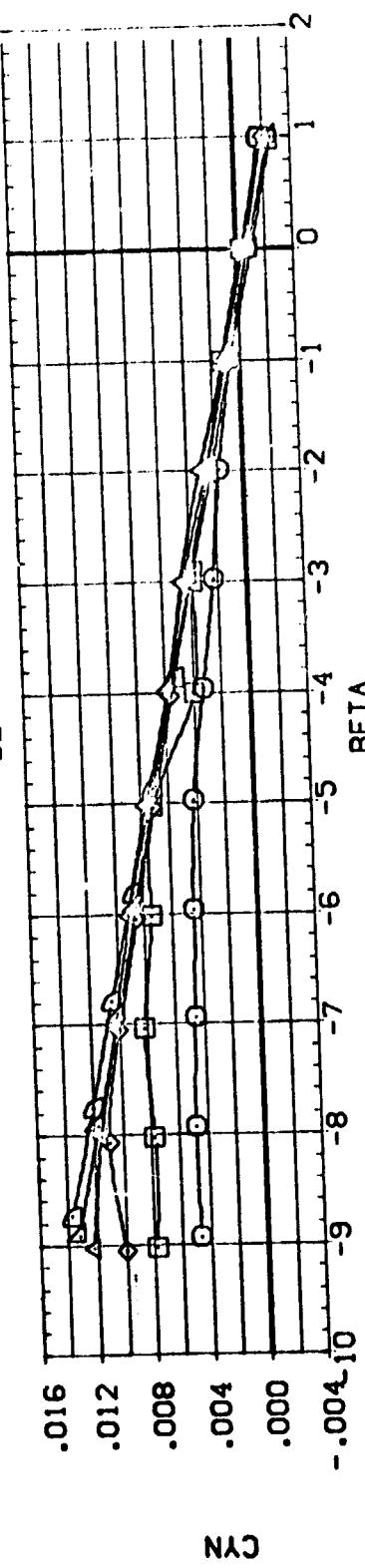
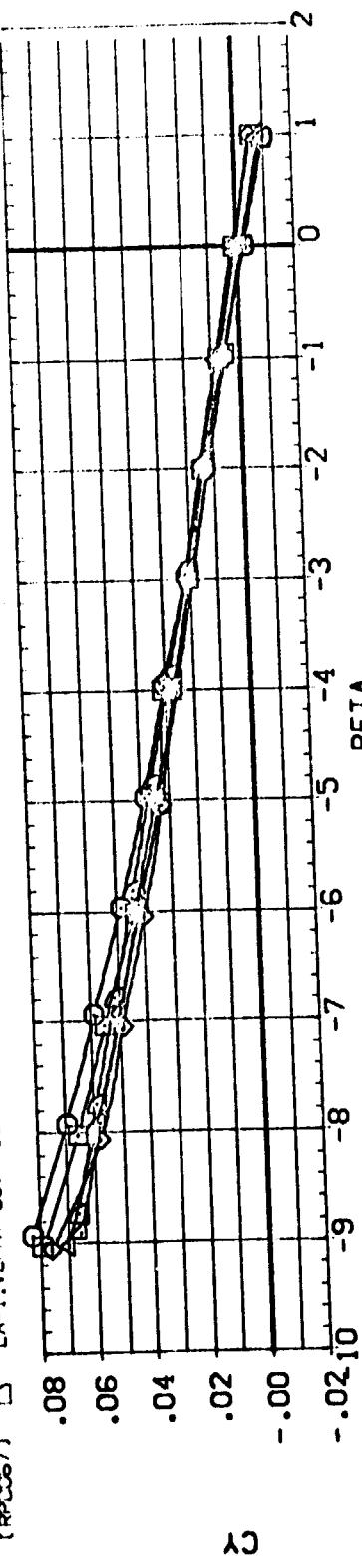
DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION
 (RPD0072) LA-11, CFH, SS, ROCKWELL CRB, 0883 V/MOD. NOSE 21.7885 SC. IN.
 (RPD071) LA-11, CFH, SS, ROCKWELL CRB, 0883 V/MOD. NOSE SREF 3.5611 INCHES
 (RPD070) LA-11, CFH, SS, ROCKWELL CRB, 0883 V/MOD. NOSE LREF 7.2251 INCHES
 (RPD078) LA-11, CFH, SS, ROCKWELL CRB, 0883 V/MOD. NOSE BREF 6.2822 INCHES
 (RPD089) LA-11, CFH, SS, ROCKWELL CRB, 0883 V/MOD. NOSE XMRP .0000 INCHES
 (RPD087) LA-11, CFH, SS, ROCKWELL CRB, 0883 V/MOD. NOSE YMRP .0000 INCHES
 (RPD085) LA-11, CFH, SS, ROCKWELL CRB, 0883 V/MOD. NOSE ZMRP .0000 INCHES
 SCALE



BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-30, AILERON= 10)

$(\Delta MACH) = 10.30$

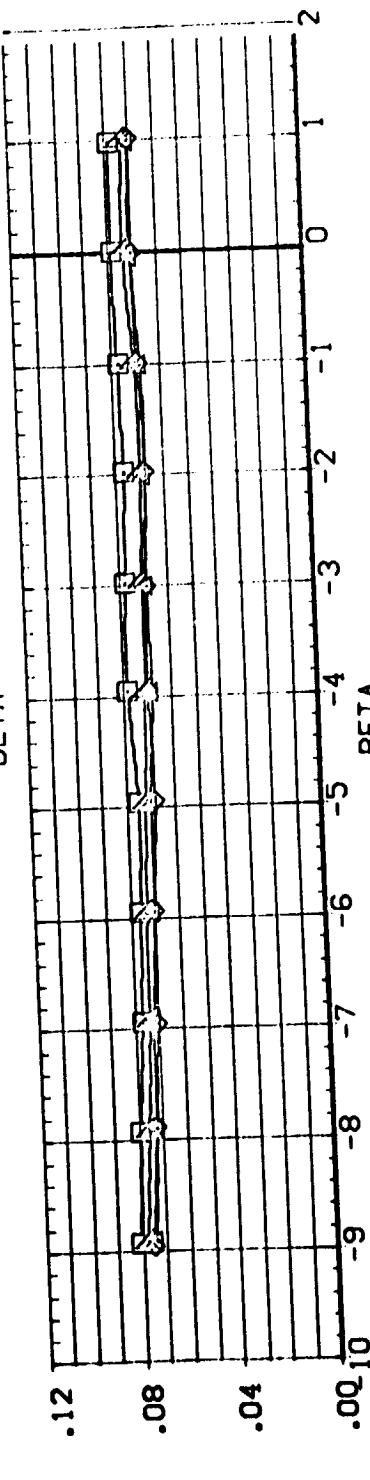
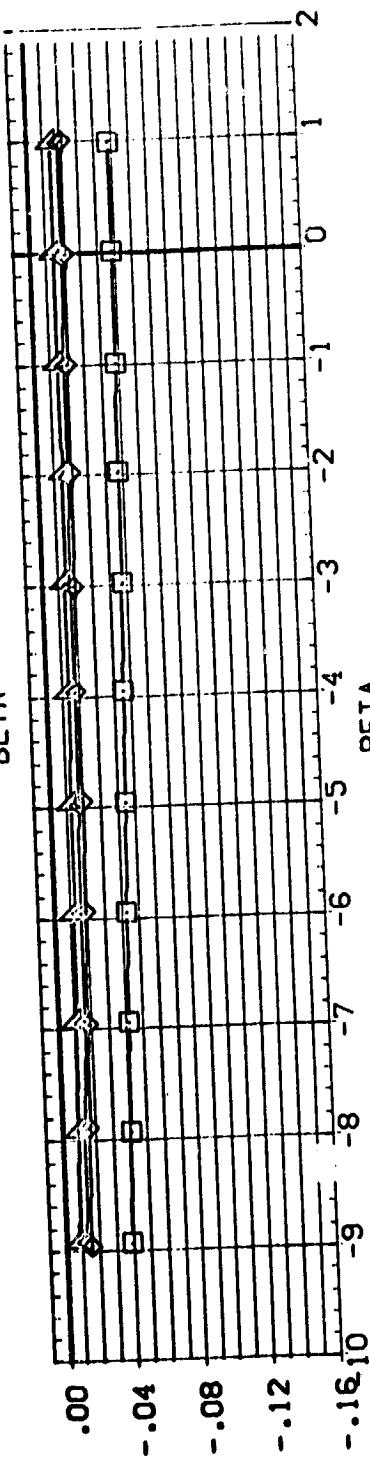
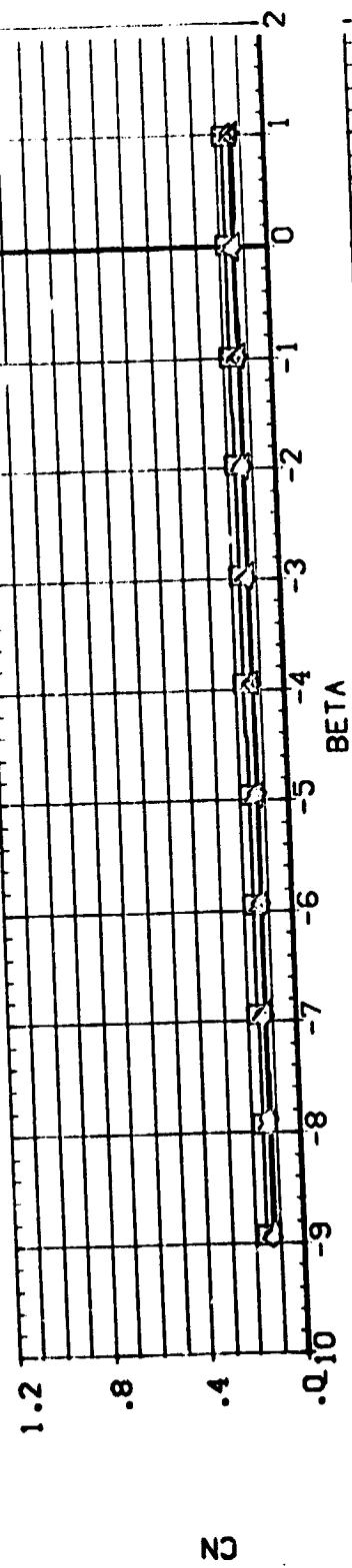
DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION
 RP00072 LA-11. CFHT 95. ROCKWELL CR3. 0893 V/MOD. NOSE ALPHA AILERON ELEVTR EDFLAP
 RP00071 LA-11. CFHT 95. ROCKWELL CR3. 0893 V/MOD. NOSE 10.000 -30.000 10.000 14.250 21.7885
 RP00070 LA-11. CFHT 95. ROCKWELL CR3. 0893 V/MOD. NOSE 15.000 -30.000 10.000 14.250 3.551
 RP00069 LA-11. CFHT 95. ROCKWELL CR3. 0893 V/MOD. NOSE 20.000 -30.000 10.000 14.250 7.025
 RP00068 LA-11. CFHT 95. ROCKWELL CR3. 0893 V/MOD. NOSE 25.000 -30.000 10.000 14.250 6.2802
 RP00067 LA-11. CFHT 95. ROCKWELL CR3. 0893 V/MOD. NOSE 30.000 -30.000 10.000 14.250 0.0000
 RP00066 LA-11. CFHT 95. ROCKWELL CR3. 0893 V/MOD. NOSE 35.000 -30.000 10.000 14.250 0.0000
 RP00065 LA-11. CFHT 95. ROCKWELL CR3. 0893 V/MOD. NOSE 40.000 -30.000 10.000 14.250 0.075
 SCALE



BASIC AERODYNAMIC CHARACTERISTICS IN SIDESLIP (ELEVATOR=-30, AILERON= 10)
 $(\text{A})_{\text{MACH}} = 10.30$

DATA SET S₁₀₀₀ CONFIGURATION DESCRIPTION: 0898 V/MOD. NOSE
 LA-11 CHT 96° ROCKWELL CRB. 0898 V/MOD. NOSE

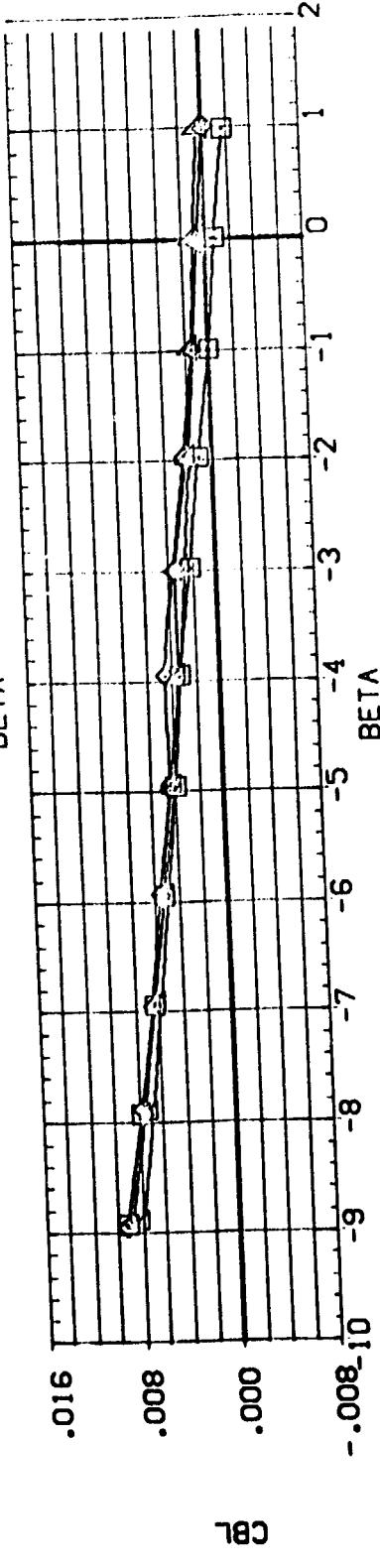
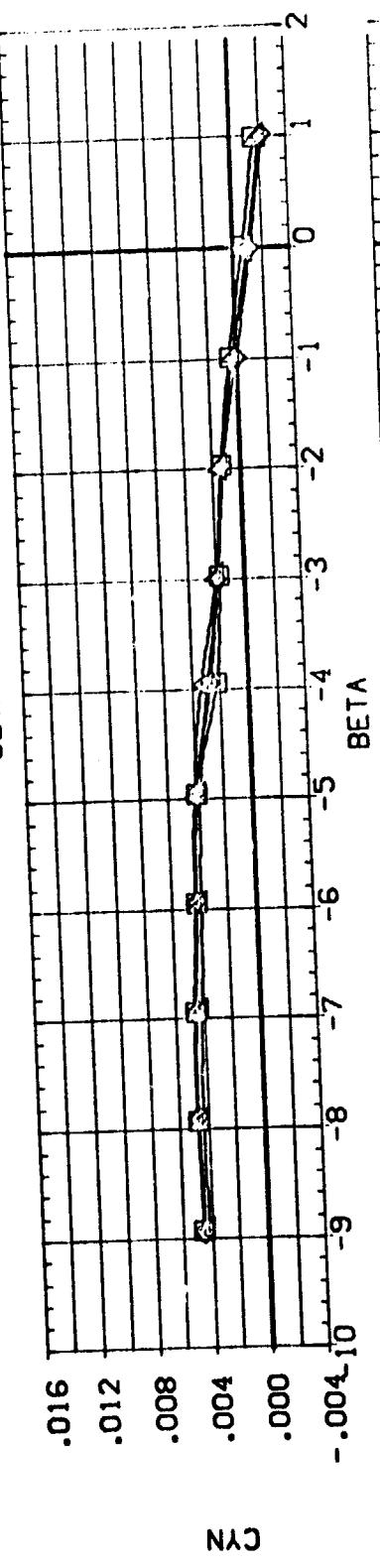
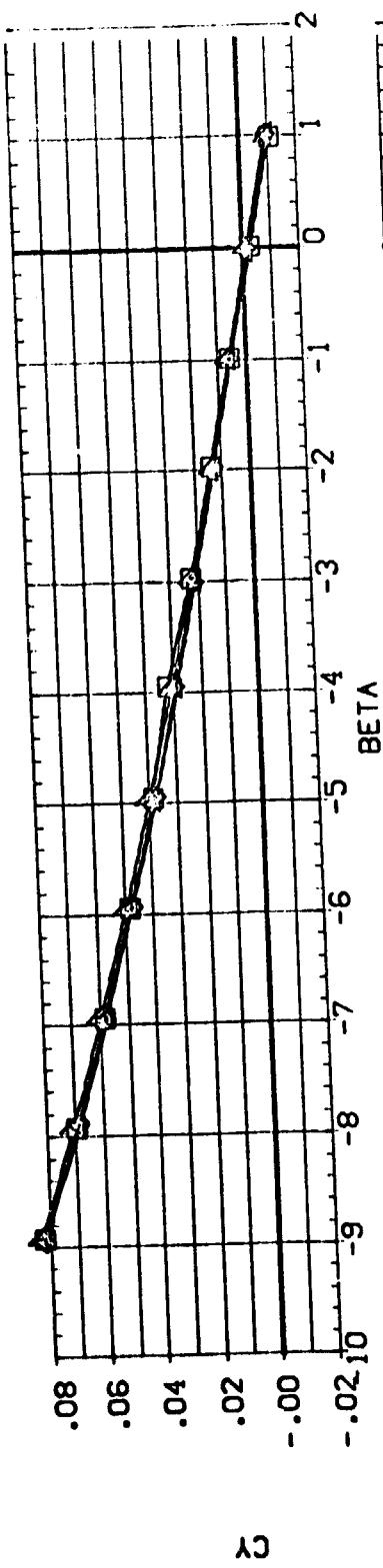
REFERENCE INFORMATION
 SC.: N.
 SREF 21.7886
 LREF 3.55.
 BREF 7.025.
 XMRP 6.2652
 YMRP 6.2650
 ZMRP .0375
 SCALE



EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA= 10 DEG.)

C_A MACH = 10.30

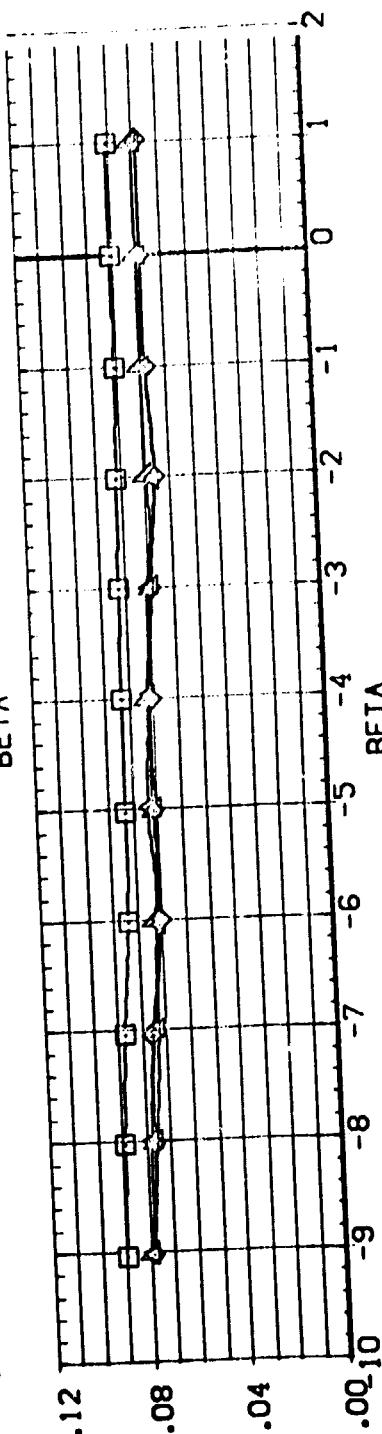
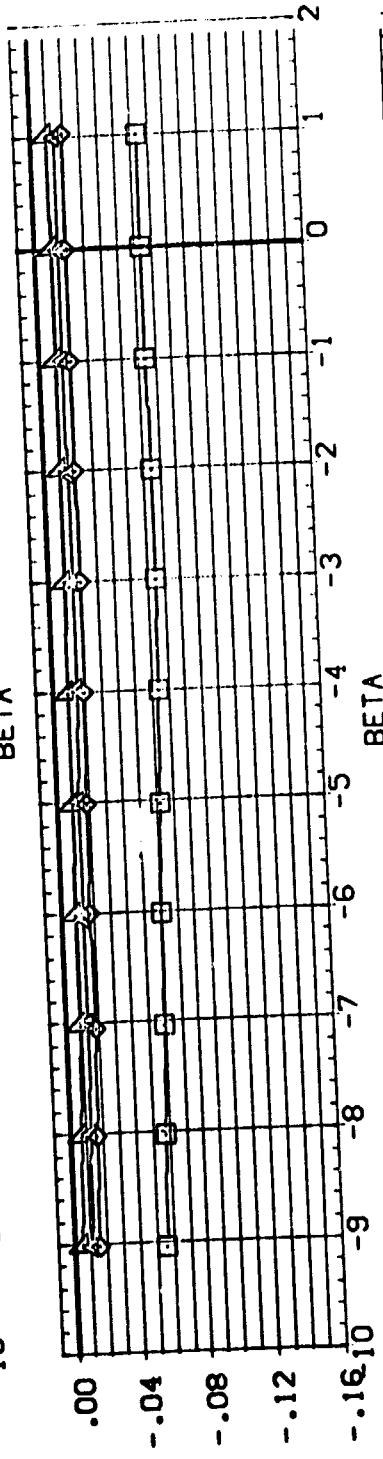
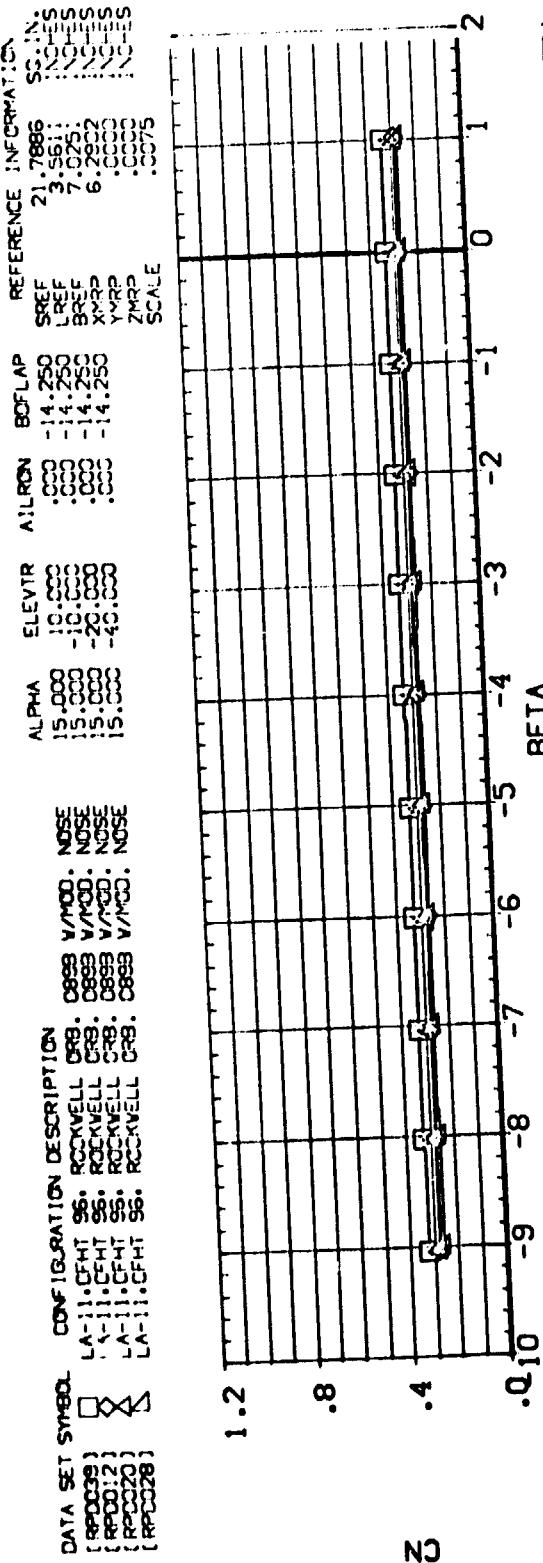
DATA SET SYMBOL	CONFIGURATION DESCRIPTION		REFERENCE INFORMATION	
	ALPHA	BETA	AILRDN	BOFLAP
(RPDC40)	0.000	0.000	10.000	-14.250
(RPD011)	0.000	0.000	10.000	-14.250
(RPD019)	0.000	0.000	10.000	-14.250
(RPD27)	0.000	0.000	10.000	-14.250



EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA= 10 DEG.)
(A)MACH = 10.30

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DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION
 [RP0039] A-11.CFH1 95. ROCKWELL CRB. 0893 VMOD. NOSE SREF 21.7886 SC:N.
 [RP0042] A-11.CFH1 95. ROCKWELL CRB. 0893 VMOD. NOSE LREF 3.5511
 [RP0042] A-11.CFH1 95. ROCKWELL CRB. 0893 VMOD. NOSE BREF 7.0251
 [RP0042] A-11.CFH1 95. ROCKWELL CRB. 0893 VMOD. NOSE XMRP 6.2922
 [RP0042] A-11.CFH1 95. ROCKWELL CRB. 0893 VMOD. NOSE YMRP .0000
 [RP0042] A-11.CFH1 95. ROCKWELL CRB. 0893 VMOD. NOSE ZMRP .2375
 SCALE



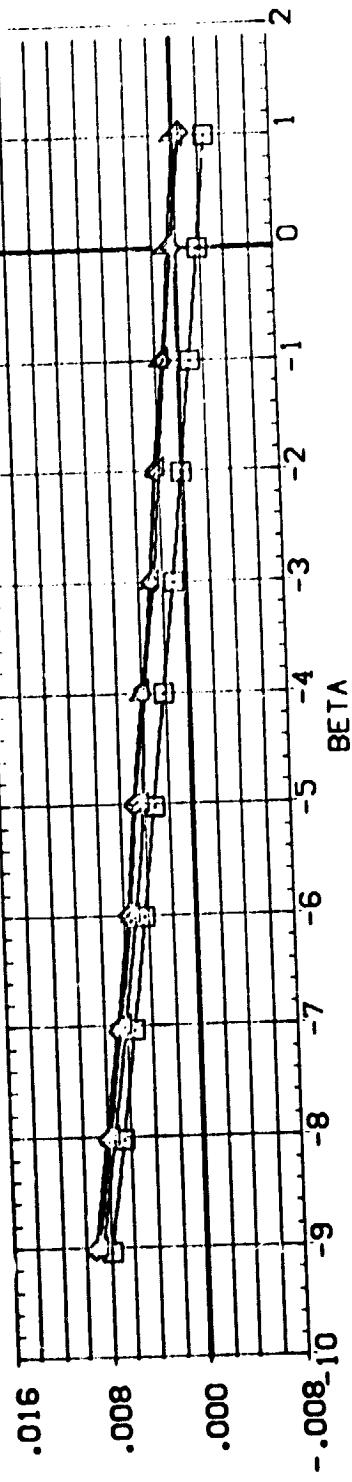
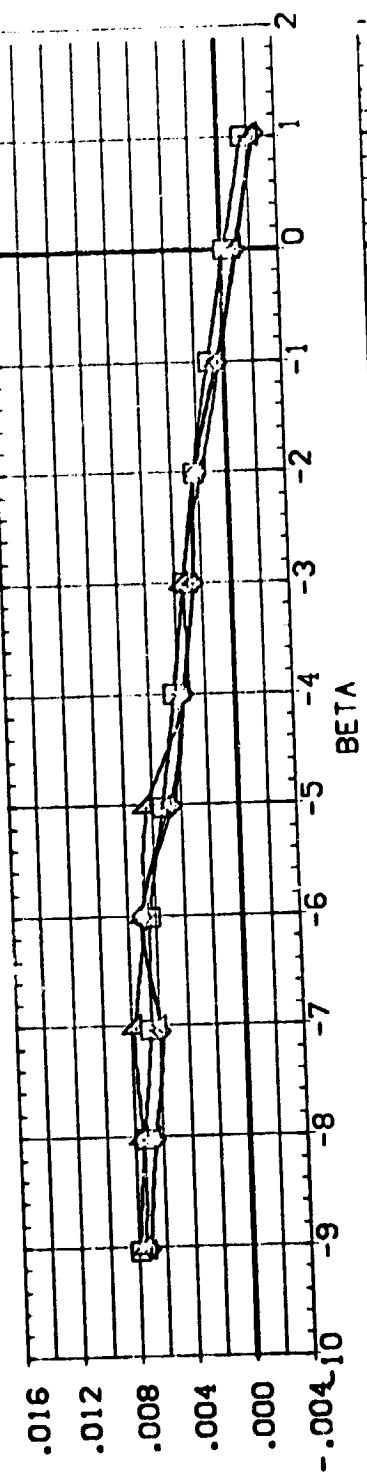
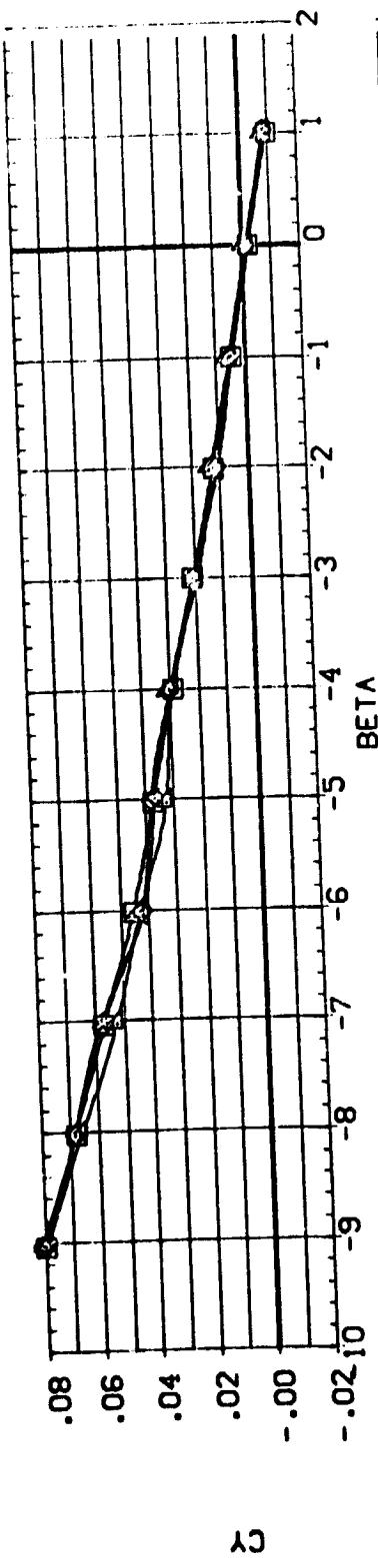
EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA = 15 DEG.)

AJMACH = 10.30

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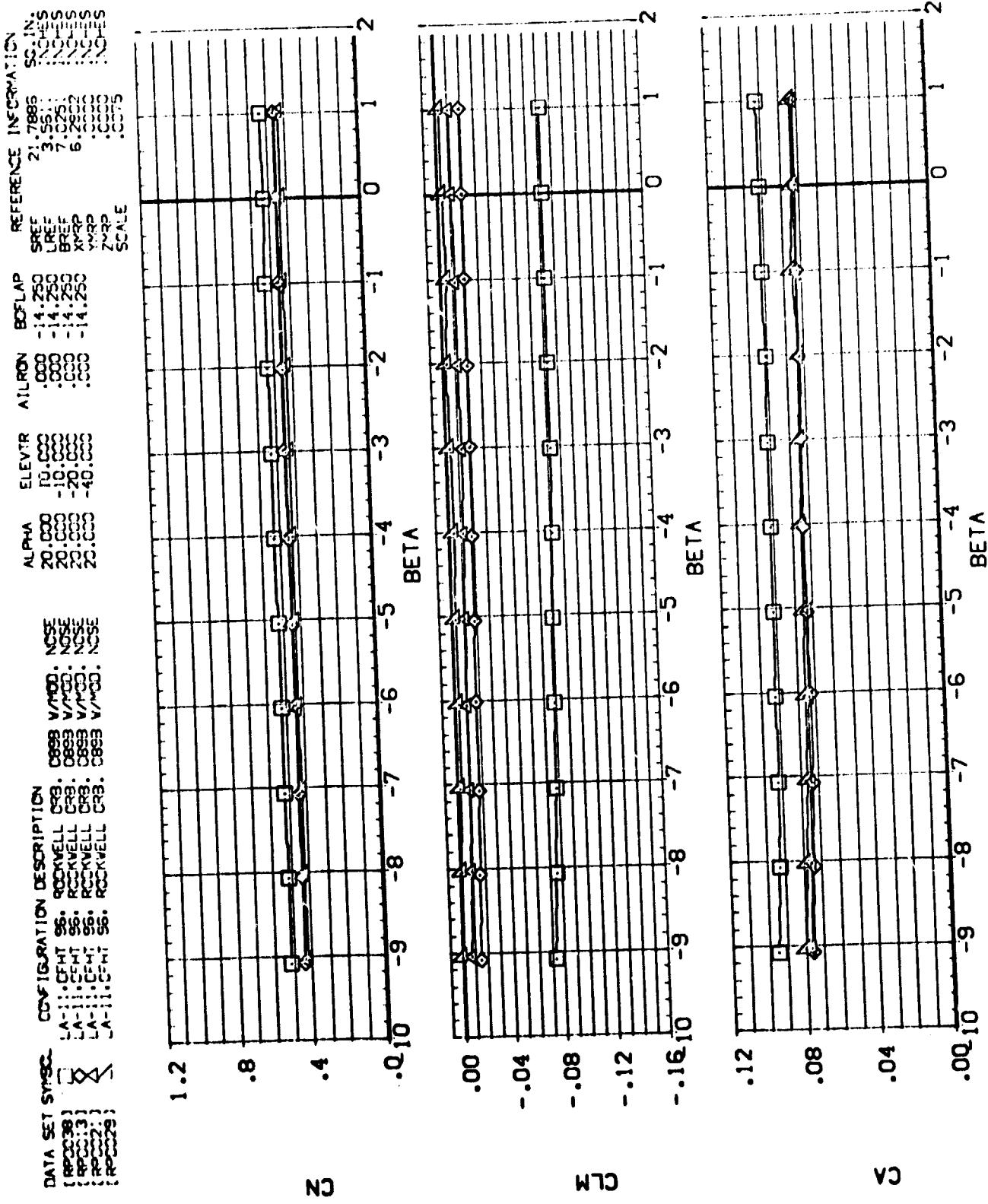
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SCIN.
RPOC39	LA-11. CHT 96. ROCKWELL CRB. 0899 V/MCD.	2; .7886
RPOC12	LA-11. CHT 96. ROCKWELL CRB. 0899 V/MCD.	3.55;
RPOC21	LA-11. CHT 96. ROCKWELL CRB. 0899 V/MCD.	7.05;
RPOC28	LA-11. CHT 96. ROCKWELL CRB. 0899 V/MCD.	6.2022

ALPHA	ELEVTR	AIRRON	BOFLAP	REFERENCE INFORMATION
15.000	10.000	.000	-14.250	SREF
15.000	-10.000	.000	-14.250	LREF
15.000	-20.000	.000	-14.250	BREF
15.000	-40.000	.000	-14.250	XREF
				YREF
				ZREF
				SCALE



EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP ($\text{ALPHA} = 15 \text{ DEG.}$)
 $(\text{A}) \text{MACH} = 10.30$

DATA SET SYMBOL CONFIGURATION DESCRIPTION C893 V/MOD. NOSE
 (RPPC38) A-11-CFT 55. ROCKWELL CRB. C893 V/MOD. NOSE
 (RPPC33) A-11-CFT 56. ROCKWELL CRB. C893 V/MOD. NOSE
 (RPPC21) A-11-CFT 57. ROCKWELL CRB. C893 V/MOD. NOSE
 (RPPC26) A-11-CFT 58. ROCKWELL CRB. C893 V/MOD. NOSE



EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA = 20 DEG.)

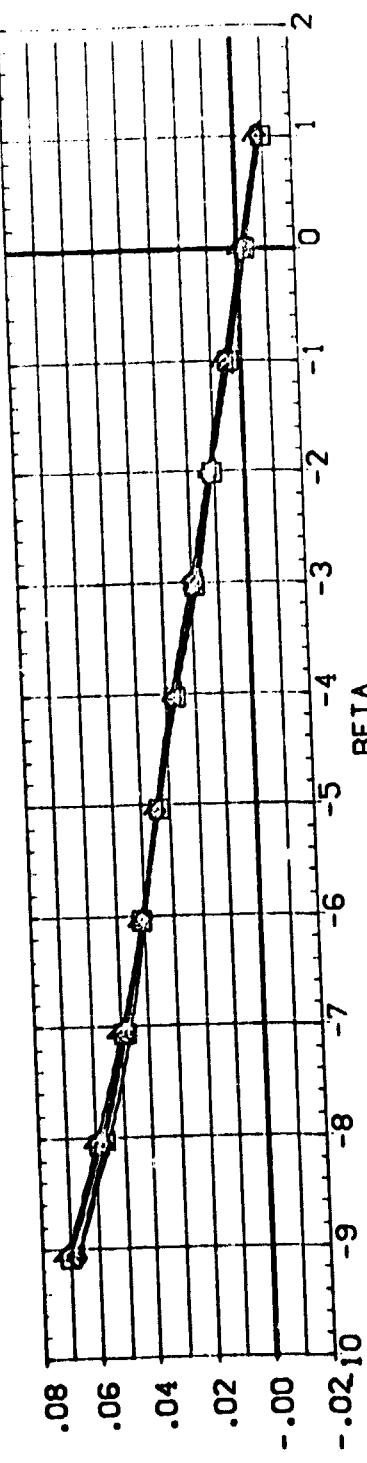
(A) MACH = 10.30

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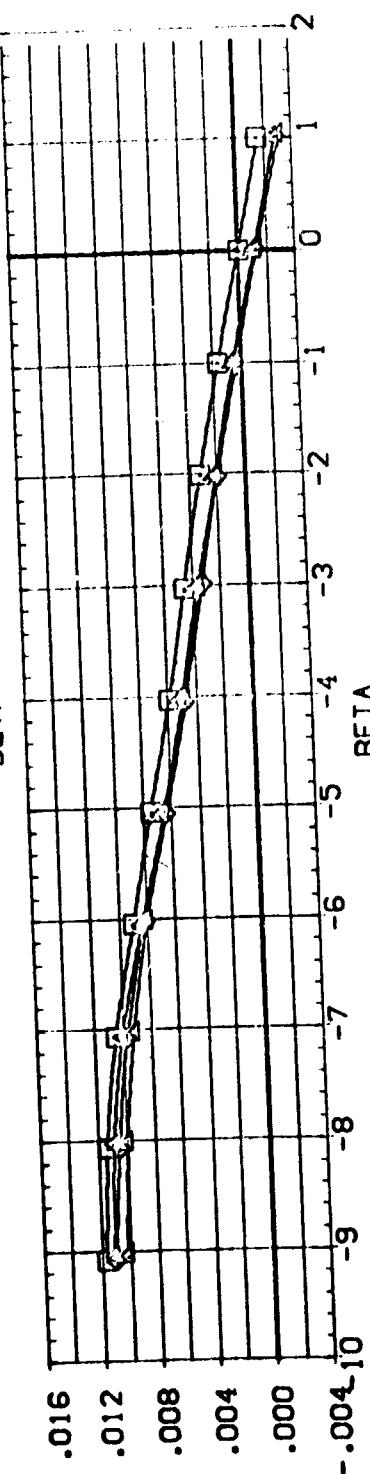
DATA SET SYMBOLS - CONFIGURATION DESCRIPTION

[RP0038]	□	A-11, CHT 95, ROCKWELL CRB.
[RP0013]	○	A-11, CHT 95, ROCKWELL CRB.
[RP0021]	△	A-11, CHT 95, ROCKWELL CRB.
[RP0028]	▽	A-11, CHT 95, ROCKWELL CRB.

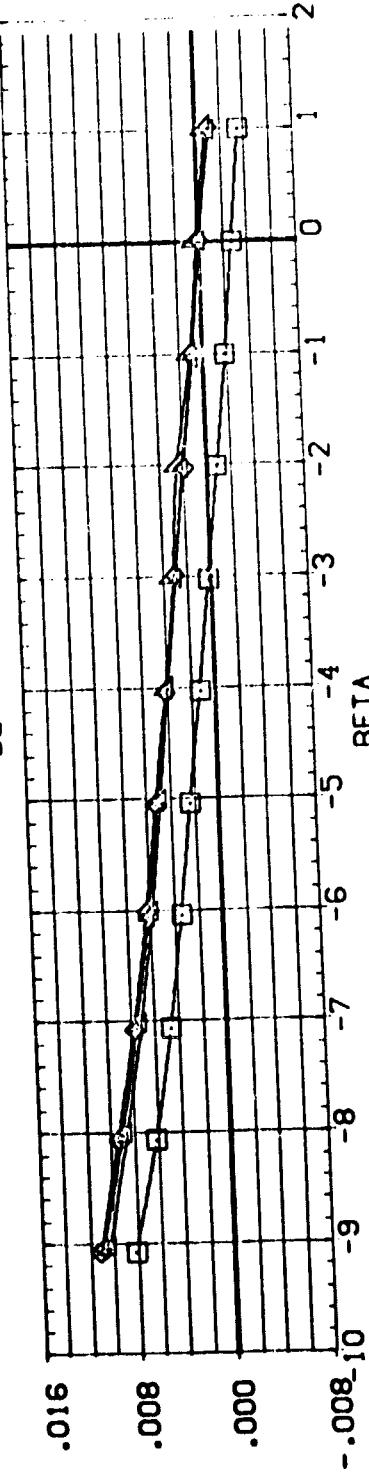
REFERENCE INFORMATION
 ALPHA ELEVTR AILRON BOFLAP SCIN
 20.000 10.000 .000 -14.250 SREF
 20.000 10.000 .000 -14.250 LREF
 20.000 20.000 .000 -14.250 BREF
 20.000 -20.000 .000 14.250 XRP
 20.000 -40.000 .000 14.250 YRP
 20.000 40.000 .000 14.250 ZRP
 SCALE



CY



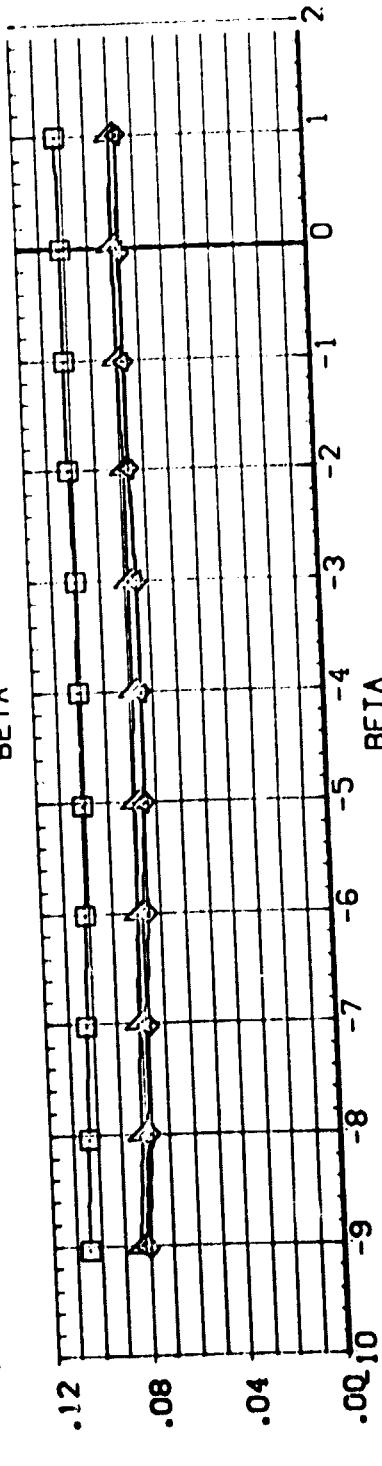
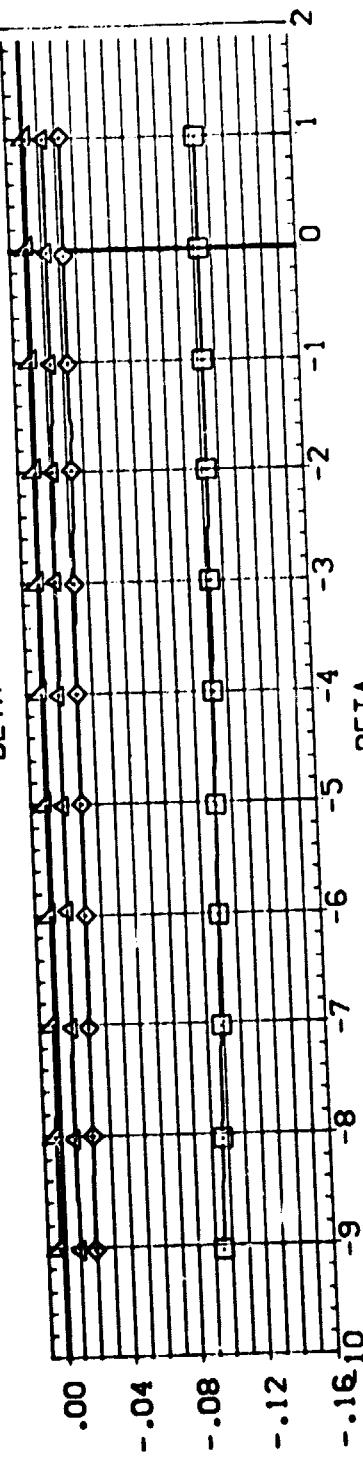
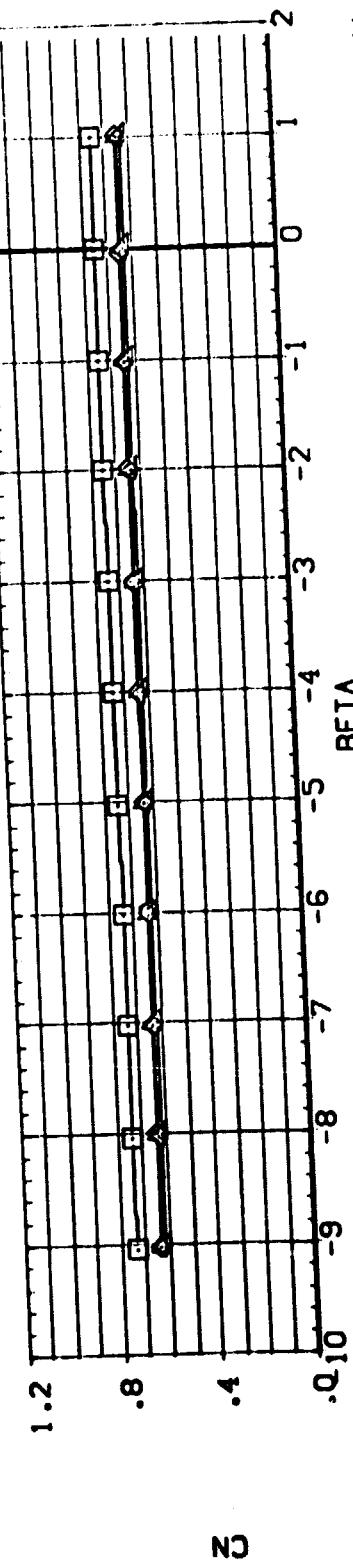
CYN



CBL

EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA= 20 DEG.)
 (MACH = 10.30)

DATA SET	SET NO.	CONFIGURATION DESCRIPTION		SCIN.	REFERENCE INFORMATION
		CRB.	NOSE		
[RP0007]	LA-11-CFT	96, ROCKWELL CRB.	0099 V/NOSE	.000	SREF 21.7886 LREF 3.5611 BREF 7.0751 XRP 6.2632 YRP .0000 ZRP .6375 SCALE
[RP0014]	LA-11-CFT	96, ROCKWELL CRB.	0099 V/NOSE	.000	
[RP0022]	LA-11-CFT	96, ROCKWELL CRB.	0099 V/NOSE	.000	
[RP0030]	LA-11-CFT	96, ROCKWELL CRB.	0099 V/NOSE	.000	



EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA= 25 DEG.)

(A)_{MACH} = 10.30

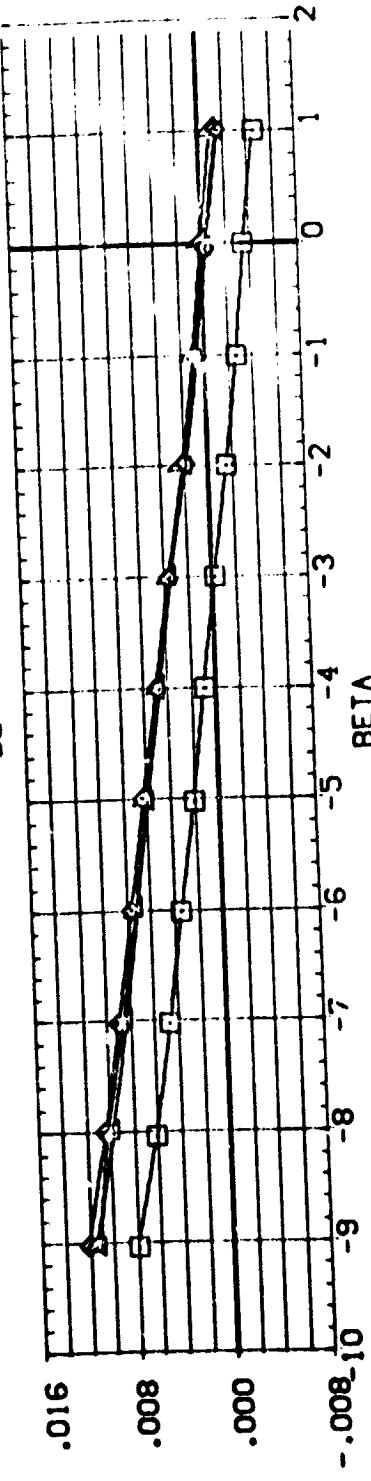
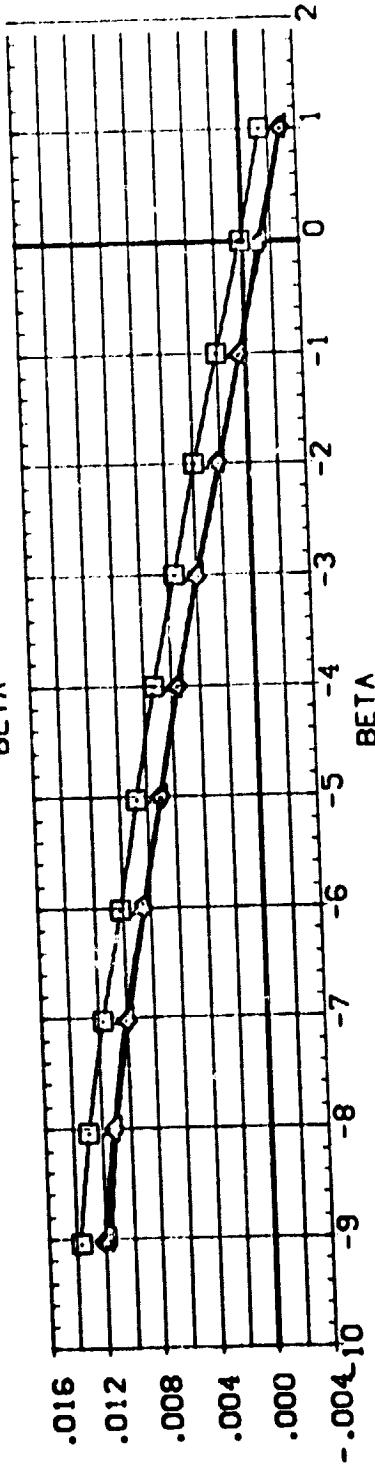
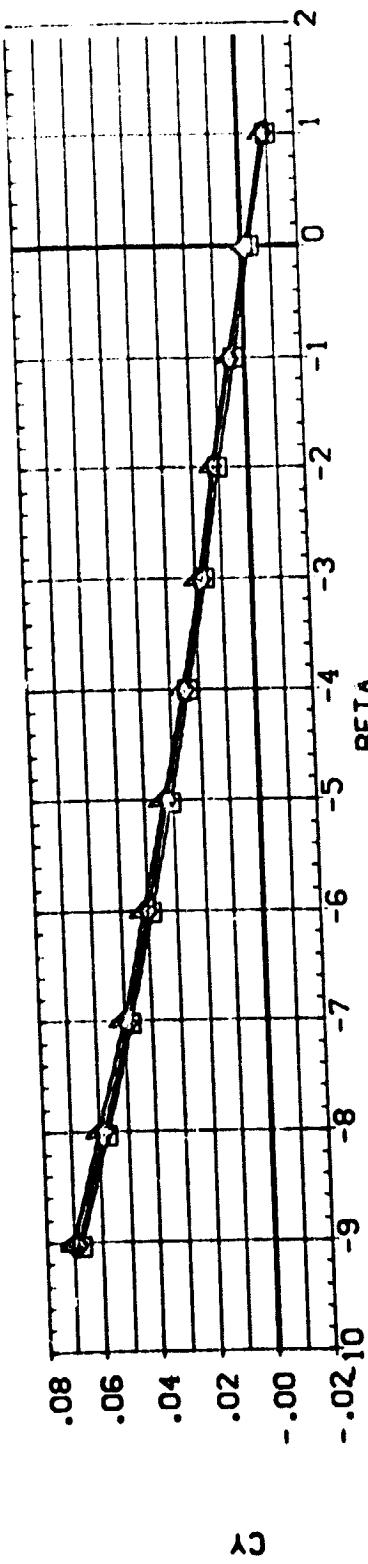
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PAGE 4C

EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA = 25 DEG.)

(V_{MACH} = 0.30)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
(RPP001)	LA-1. CFH 56. ROCKWELL CR9. 0888 VIND. NSE	SQIN 21.7885
(RPP002)	LA-1. CFH 56. ROCKWELL CR9. 0888 VIND. NSE	SRREF 3.5811
(RPP003)	LA-1. CFH 56. ROCKWELL CR9. 0888 VIND. NSE	LREF 7.3261
(RPP004)	LA-1. CFH 56. ROCKWELL CR9. 0888 VIND. NSE	BREF 6.5002
(RPP005)	LA-1. CFH 56. ROCKWELL CR9. 0888 VIND. NSE	XREF 6.5002
(RPP006)	LA-1. CFH 56. ROCKWELL CR9. 0888 VIND. NSE	YREF 1.8375
(RPP007)	LA-1. CFH 56. ROCKWELL CR9. 0888 VIND. NSE	ZREF 1.8375
(RPP008)	LA-1. CFH 56. ROCKWELL CR9. 0888 VIND. NSE	SCAL 1.0000

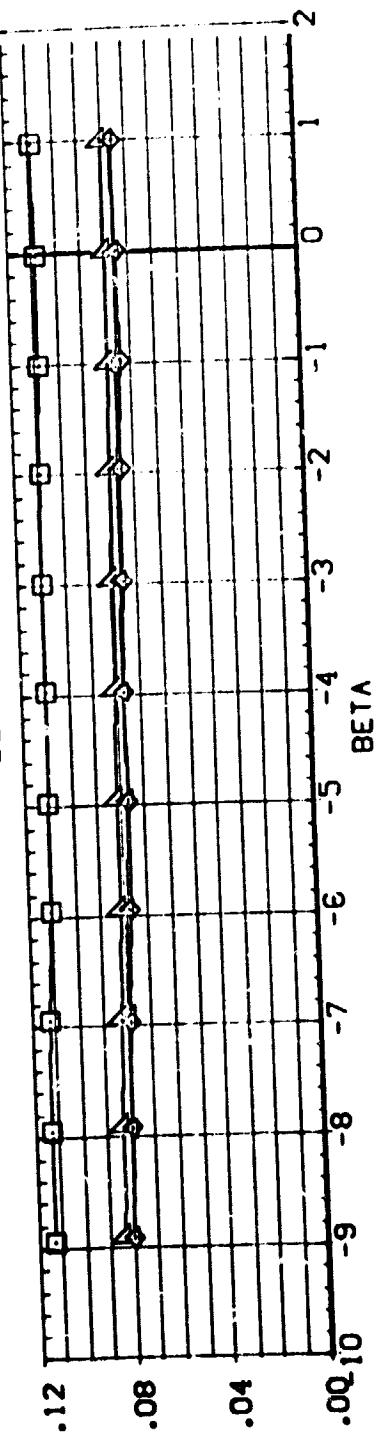
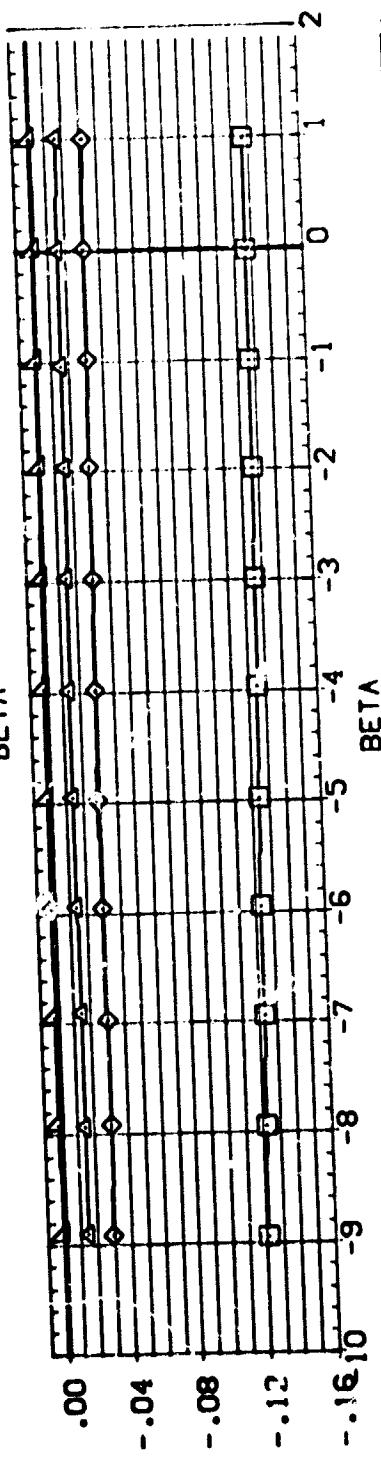
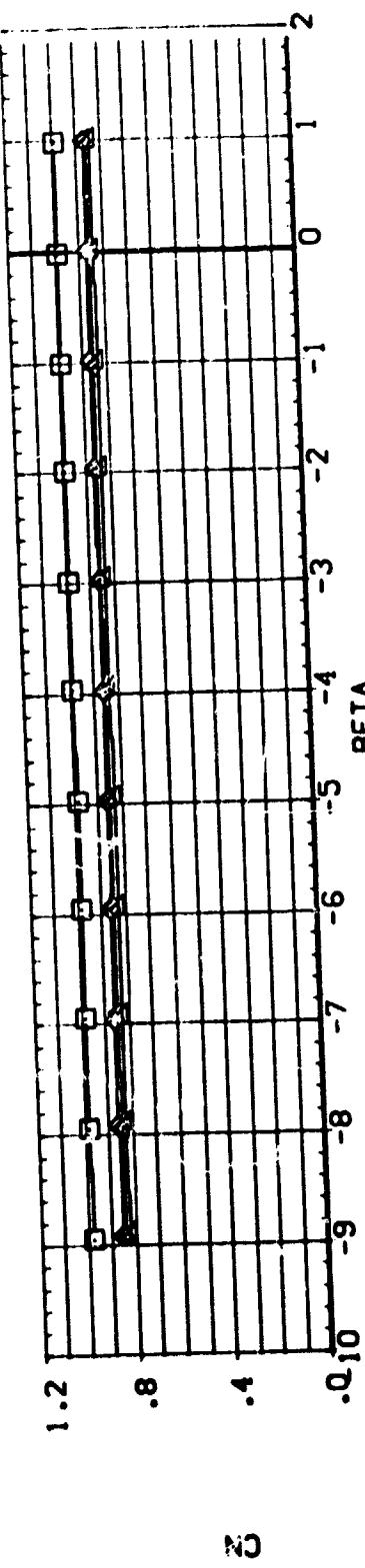


DATA SET SYMBOLS

[REF0036]	□	CONFIGURATION DESCRIPTION
[REF0015]	○	LA-11. CHT 96. ROCKWELL CRB.
[REF0023]	△	LA-11. CHT 96. ROCKWELL CRB.
[REF0031]	▽	LA-11. CHT 96. ROCKWELL CRB.

REFERENCE INFORMATION

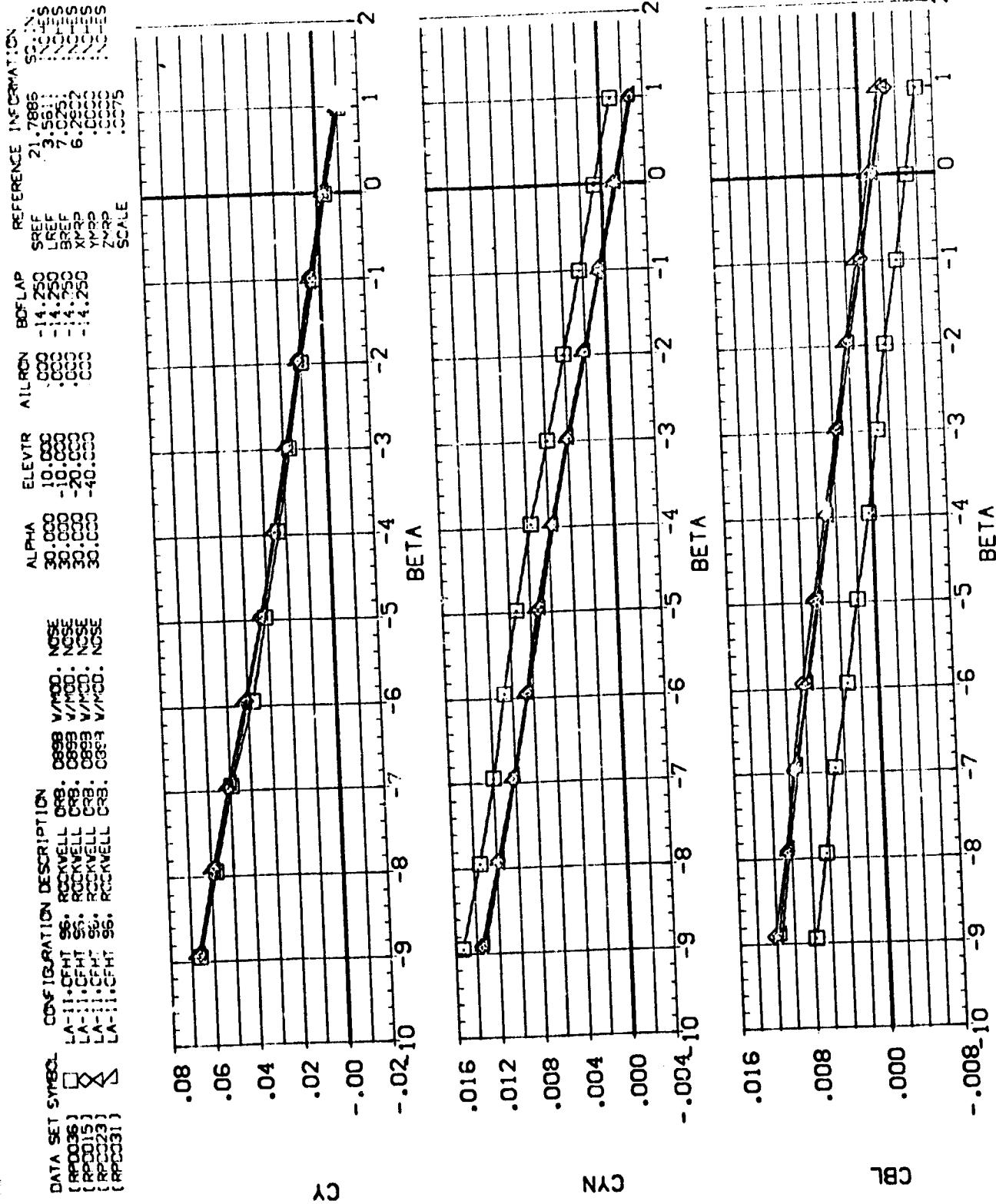
SC: IN:	21.7886
SPRF:	3.56
LAF:	.295
SPRF:	1.4250
XBAR:	6.2902
YBAR:	.0000
ZBAR:	.3375
SCALE:	



EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP ($\alpha = 30$ DEG.)
 $(\text{MACH} = 0.30)$

PAGE 4:

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RP0036) □ A-11, CFHT, 96, ROCKWELL CRB. 0899 V/MOD. NOSE
 (RP0015) □ A-11, CFHT, 96, ROCKWELL CRB. 0893 V/MOD. NOSE
 (RP0023) □ A-11, CFHT, 96, ROCKWELL CRB. 0883 V/MOD. NOSE
 (RP0031) △ A-11, CFHT, 96, ROCKWELL CRB. 0881 V/MOD. NOSE

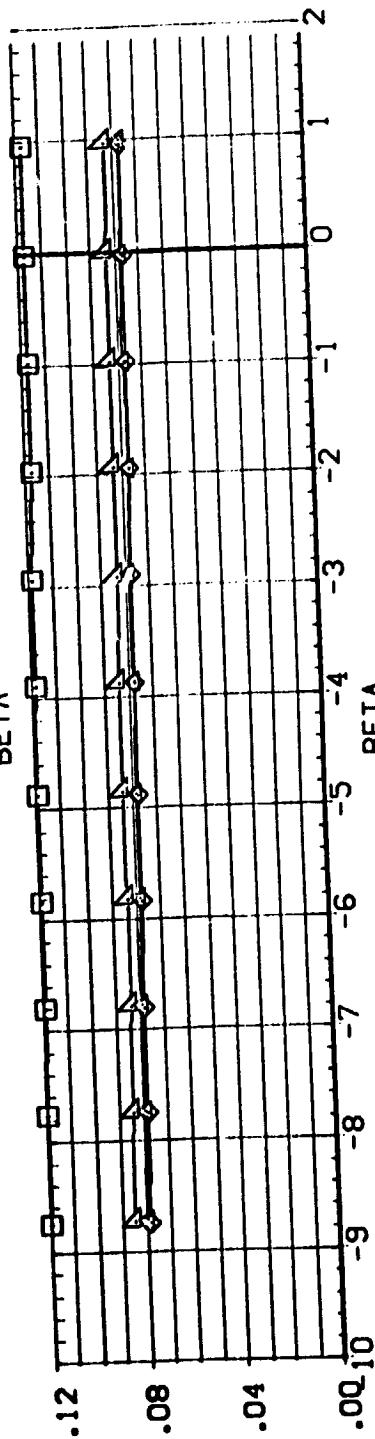
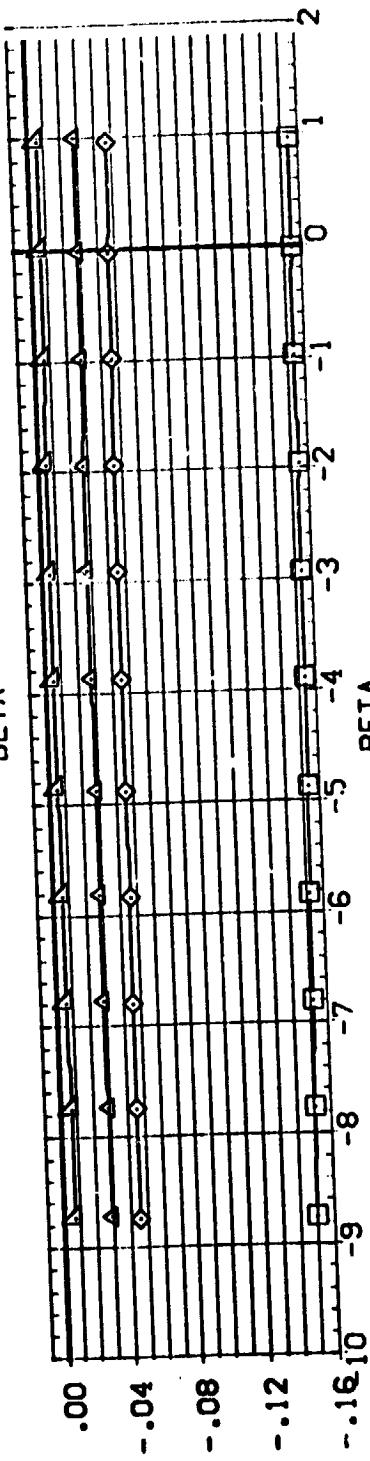
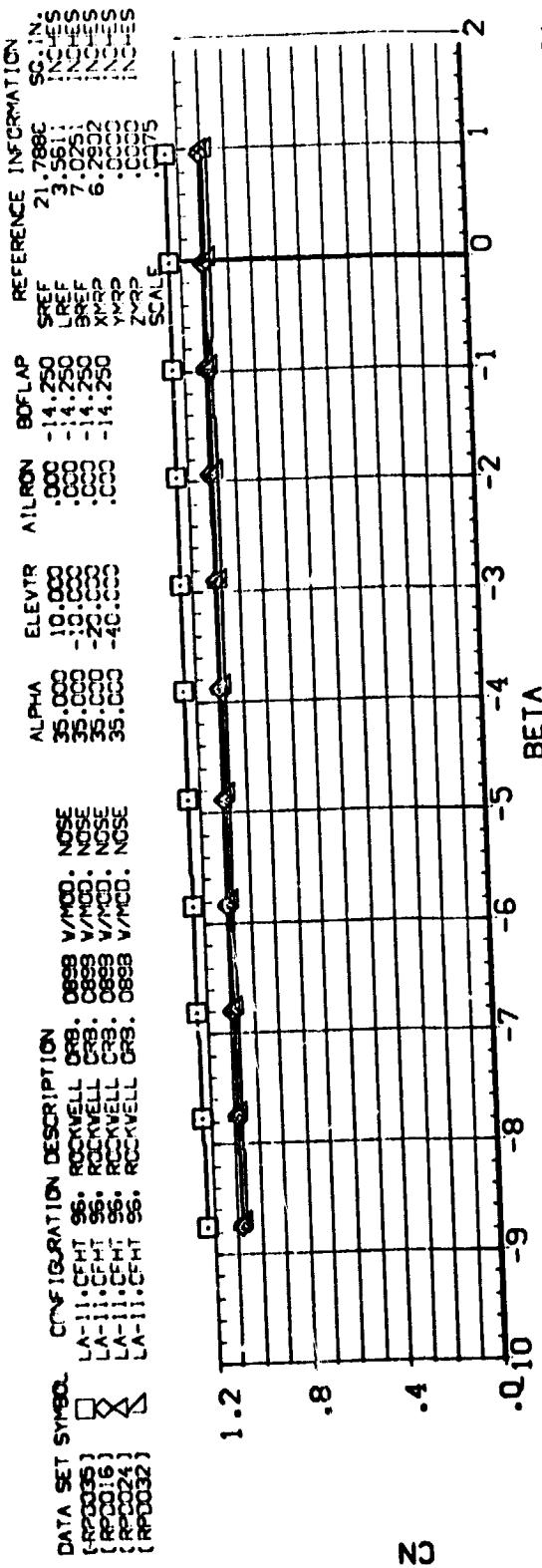


EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA = 30 DEG.)

(A)MACH = 10.30



DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION
 LA-11-CFH 880, ROCKWELL CRB, 0893 V/MOD. NOSE
 {RP20335} {RP20336} {RP20337} {RP20338} {RP20339} {RP20340}



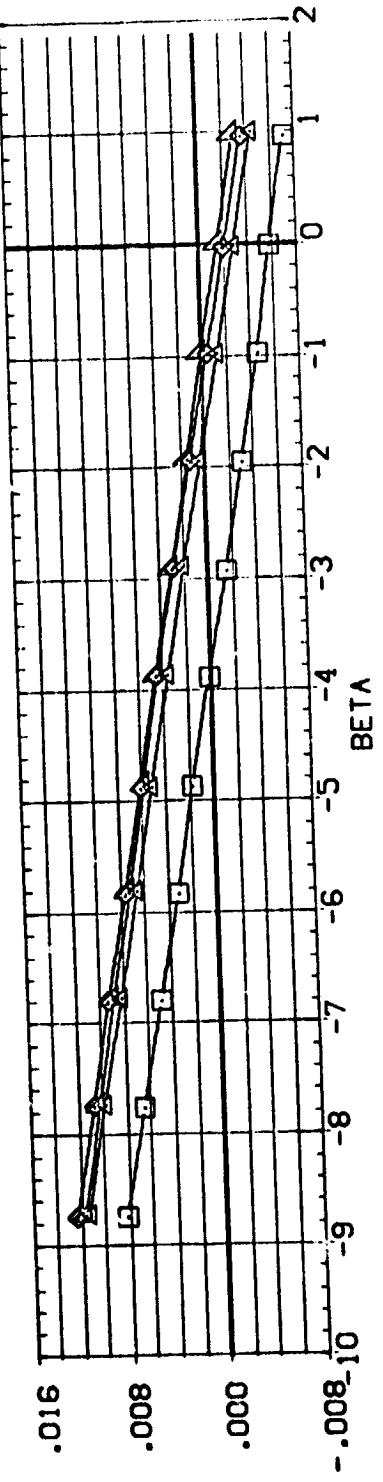
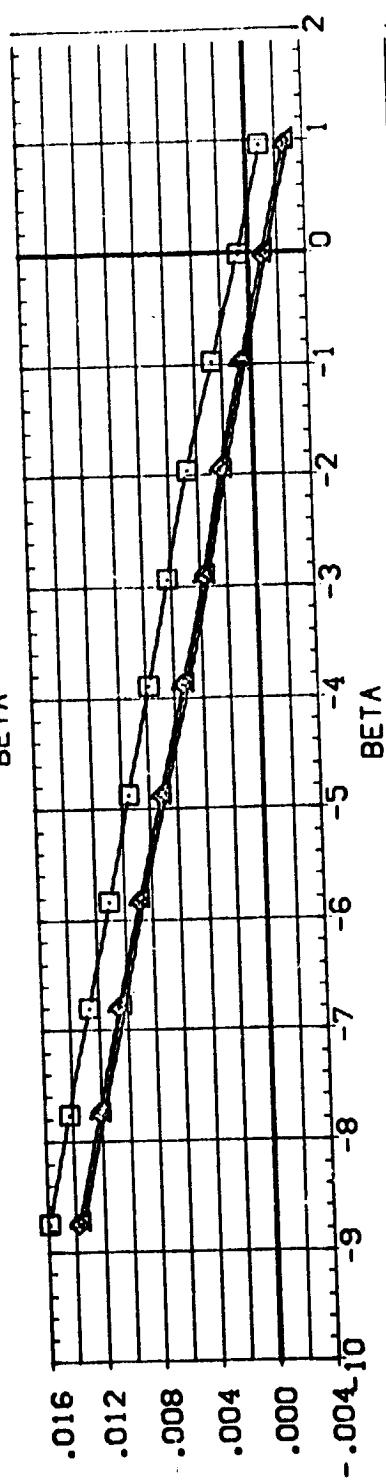
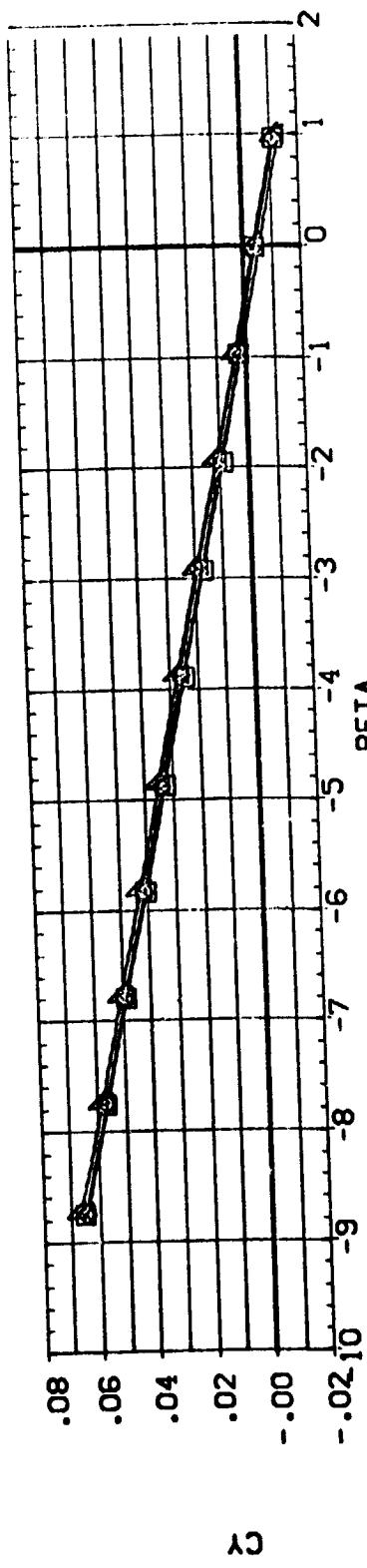
EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA = 35 DEG.)

(A)MACH = 10.30

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DATA SET SNAME: CONFIGURATION DESCRIPTION
 (RPD035) □ A-11.CHT 96. ROCKWELL ORB. 0893 V/MDO. NOSE
 (RPD016) X A-11.CHT 96. ROCKWELL ORB. 0893 V/MDO. NOSE
 (RPD024) Δ A-11.CHT 96. ROCKWELL ORB. 0893 V/MDO. NOSE
 (RPD032) △ A-11.CHT 96. ROCKWELL ORB. 0893 V/MDO. NOSE

REFERENCE INFORMATION
 SREF 21.7886 SQ. IN.
 LREF 3.5611 INCHES
 BREF 7.0251 INCHES
 XMRP 6.2852 INCHES
 YMRP .0000 INCHES
 ZMRP .0075 INCHES
 SCALE



EFFECT OF CONTROL DEFLECTIONS IN SIDESLIP (ALPHA= 35 DEG.)
 (A)MACH = 10.30

APPENDIX
TABULATED SOURCE DATA

Plotted data listings available on request
from the Data Management System.

LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RFPCT01) (15 AUG 73)

PARAMETRIC DATA

REFERENCE DATA

SREF =	21.7886 SQ.IN.	XHYP =	6.2902 INCHES
LREF =	3.5611 INCHES	YHYP =	.0000 INCHES
BREF =	7.0251 INCHES	ZHYP =	.0000 INCHES
SCALE =	.0075		

RUN NO.	A/ D	RVAL =	1.00	GRADIENT INTERVAL =	-5.00/ 5.00
				CL	CL
MACH	ALPHA	BETA	CN	CLM	CL
10.300	9.387	-10.0360	.14959	.000057	-.00159
10.300	14.991	-10.0337	.26902	-.000308	.00124
10.300	20.169	-10.0302	.46931	.07551	-.000222
10.300	25.311	-10.0319	.67296	.07912	-.000317
10.300	30.126	-10.0417	.88230	.06499	-.00147
10.300	35.222	-10.0626	1.12563	.08478	-.00241
	GRADIENT		.03682	.09366	-.00237

(RFPCT02) (15 AUG 73)

PARAMETRIC DATA

BETA = .000
ATLON = .000

RUN NO.	S/ D	RVAL =	1.00	GRADIENT INTERVAL =	-5.00/ 5.00
				CL	CL
MACH	ALPHA	BETA	CN	CLM	CL
10.300	9.967	-4.92463	.14317	-.00571	.003936
10.300	15.240	-4.90651	.30036	.07436	-.03178
10.300	20.192	-5.00773	.47972	.07760	-.03853
10.300	25.260	-4.96696	.68215	.07974	-.04907
10.300	30.109	-4.92916	.93191	.08388	-.06438
10.300	35.298	-4.82714	1.16356	.08617	-.09031
	GRADIENT		.04030	.00393	-.00711

(RFPCT02) (15 AUG 73)

LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

BETA = -.000
ATLON = .000

RUN NO.	S/ D	RVAL =	1.00	GRADIENT INTERVAL =	-5.00/ 5.00
				CL	CL
MACH	ALPHA	BETA	CN	CLM	CL
10.300	9.967	-4.92463	.14317	-.00571	.003936
10.300	15.240	-4.90651	.30036	.07436	-.03178
10.300	20.192	-5.00773	.47972	.07760	-.03853
10.300	25.260	-4.96696	.68215	.07974	-.04907
10.300	30.109	-4.92916	.93191	.08388	-.06438
10.300	35.298	-4.82714	1.16356	.08617	-.09031
	GRADIENT		.04030	.00393	-.00711

(RFPCT02) (15 AUG 73)

DATE 10 SEP 73

TABULATED SOURCE DATA - CFHT96 (LA-11)

LA-11,CFHT 96, ROCKWELL CRB. 0398 W/MOD. NOSE

PAGE 2

(RP0003) (15 AUG 73)

REFERENCE DATA

sref = 21.7686 38.1M. *zrefp* = 6.2922 INCHES
lref = 3.5611 INCHES *yrefp* = .0000 INCHES
bref = 7.2851 INCHES *zrefp* = .0000 INCHES
scale = .0075

RUN NO. 11/0 RVL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

			CL	CBL	CY	CD	L/D
MACH	BETA	ALPHA	CN	CA	CLH	.00439	.12268
10.300	-6.929	9.92130	.13618	.07797	-.02440	.06148	.10761
10.300	-7.875	9.94559	.13645	.07935	-.02594	.06654	.12341
10.300	-6.932	9.97990	.13955	.07348	-.02681	.05856	.12471
10.300	-5.956	9.98916	.14226	.07246	-.02795	.05457	.08711
10.300	-4.971	10.00827	.14058	.07116	-.02880	.03565	.03950
10.300	-3.970	10.01792	.14339	.07286	-.02885	.03330	.03205
10.300	-2.973	10.03305	.14713	.07302	-.02999	.00129	.02432
10.300	-1.999	10.03472	.14562	.07078	-.02925	.00160	.02192
10.300	-1.979	10.03440	.14896	.07172	-.02997	.00056	.01927
10.300	-1.024	10.04005	.15031	.07318	-.03107	.00086	.00153
10.300	.991	10.03345	.14982	.07301	-.03099	.00010	.00265
	GRADIENT		.00472	.00016	-.00042	-.00063	-.00102

(RP0004) (15 AUG 73)

REFERENCE DATA

sref = 21.7686 38.1M. *zrefp* = 6.2922 INCHES
lref = 3.5611 INCHES *yrefp* = .0000 INCHES
bref = 7.2851 INCHES *zrefp* = .0000 INCHES
scale = .0075

RUN NO. 10/0 RVL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

			CL	CBL	CY	CD	L/D
MACH	BETA	ALPHA	CN	CA	CLH	.00726	.15517
10.300	-9.068	15.04761	.28560	.08930	-.02520	.08817	.25402
10.300	-8.000	15.04783	.28661	.08186	-.02652	.00682	.25554
10.300	-7.056	15.06255	.28059	.08347	-.02751	.00687	.07227
10.300	-6.056	15.07192	.28415	.07328	-.02723	.00755	.05728
10.300	-5.059	15.07345	.28849	.07652	-.02856	.00675	.05141
10.300	-4.009	15.08443	.29129	.07612	-.02958	.00641	.05033
10.300	-3.015	15.08612	.29216	.07497	-.03036	.00555	.01265
10.300	-2.036	15.09276	.28982	.07723	-.02839	.00526	.00130
10.300	-1.042	15.09470	.22320	.07320	-.02920	.00382	.00920
10.300	.034	15.09534	.25455	.07799	-.02543	.00240	.00179
10.300	.987	15.09423	.29510	.07315	-.02887	.00166	.00319
	GRADIENT		.00215	.07206	-.00054	.00032	-.00197

(RP0004) (15 AUG 73)

PARAMETRIC DATA

			CL	CBL	CY	CD	L/D
ALPHA			15.000	ELEVTR	.070		
ALTRON			.100	BFFLAP	=	-14.250	

PARAMETRIC DATA

			CL	CBL	CY	CD	L/D
ALPHA			15.000	ELEVTR	.070		
ALTRON			.100	BFFLAP	=	-14.250	

1-111, CFHT 96, ROCKWELL CRB. CASE W/MOD. NOSE

DATA

SREF =	21.7065	.56 .1N.	36RP	=	6.2212	INCHES
LREF =	5.5611	INCHES	16RP	=	.0000	INCHES
BREF =	7.0251	INCHES	24RP	=	.0000	INCHES
SCALE =	.0075					

PARAMETRIC DATA

ALPHIA = 20.000 ELEVTR = .000
 ALTRON = .000 BCFLAP = -14.250

GRADIENT INTERVAL = -5.00/ 5.00

								L/D
MATCH	BETA	ALPHA	CH	CA	CLH	CBL	CYN	CP
0.300	-9.117	20.10615	.47031	.07973	-.03239	.01032	.23655	1.79110
0.300	-6.161	25.19215	.47566	.57017	-.13369	.01261	.00983	1.76978
0.300	-6.161	20.09759	.47894	.07768	-.03515	.01032	.00896	1.78159
0.300	-6.161	20.10166	.48268	.07794	-.03636	.00905	.00773	.23749
0.300	-5.076	20.09903	.48567	.07834	-.03723	.00815	.00616	.23909
0.300	-4.015	20.09847	.48717	.07826	-.03870	.00680	.00568	.42649
0.300	-3.019	20.08594	.48938	.07813	-.03860	.00558	.00434	.42649
0.300	-2.041	20.09161	.48995	.07771	-.03866	.00472	.00794	.23917
0.300	-1.333	20.08596	.48956	.07771	-.03977	.00357	-.00069	.42917
0.300	-0.016	20.06966	.48969	.07778	-.03852	.00265	-.00241	.42917
0.300	.392	20.06011	.49195	.07731	-.03845	.00170	-.00146	.42917
0.300	.392	20.06103	.49195	.00037	-.00017	-.00017	-.00017	.42917

LA-11, CHIT 96, ROCKWELL CORP. (1988 W/THIN). NSC

PARAMETRIC DATA

$$\text{ALRCON} = \text{E23,000}, \text{GARIN} = \text{800,000}, \text{BGRAP} = -14.250$$

SCALE =	0.00175	RUN NO.	8/ 0	RVAL =	1.00	GRADIENT INTERVAL =	-5.00/	5.00	CY
MACH		ALPHA	CA		.00544	-.04765	.01575	.01053	.17811
BETA	-9.000	25.-27510	CN	.69107	.00436	-.04605	.01438	.00976	.16446
	-6.-0622	25.-28306		.69231	.00311	-.04859	.01268	.00875	.15477
	-7.-068	25.-24282		.69422	.00192	-.04904	.01137	.00750	.14550
	-6.-043	25.-23001		.69684	.00097	-.04979	.01011	.00569	.14056
	-5.-001	25.-21927		.69723	.00091	-.05042	.00875	.00387	.13488
	-4.-029	25.-21355		.70322	.00212	-.05187	.00724	.00199	.13435
	-5.-064	25.-20320		.70360	.00223	-.05207	.00590	.00124	.13119
	-2.-042	25.-20365		.70596	.00200	-.05214	.00474	.00119	.12779
	-1.-042	25.-20180		.70521	.00167	-.05224	.00365	.00117	.12117
	-0.-035	25.-19904		.70524	.00212	-.05204	.00244	.000501	.11550
	-0.-046	25.-19944		.70486	.00013	.00206	-.05124	.000124	.105124

5.00	CY	Q_L	CD	L/D
	.17817	.58601	.37323	1.575
	.1640	.59009	.37175	1.587
	.15476	.59236	.37123	1.596
	.14658	.59526	.37105	1.604
	.14067	.59627	.37033	1.615
	.13486	.59904	.37149	1.617
	.13452	.60165	.37392	1.600
	.13392	.60373	.37502	1.600
	.12797	.60317	.37446	1.611
	.12171	.60337	.37114	1.611
	.11586	.60282	.37442	1.610
	.11492	.60267	.37042	1.605

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TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RP0007) (15 AUG 73)

REFERENCE DATA

BETEF = 21.7866 30. IN. XHPP = 6.2932 INCHES
 LUEF = 3.5611 INCHES YHPP = .0000 INCHES
 GRPF = 7.0231 INCHES ZHPP = .0000 INCHES
 SCALE = .0075

RUN NO. S/D RFLV = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLW	CBL	CYN	CL	CY	L/C
10.300	-6.919	30.36186	.92697	.08785	-.06440	.01394	.01529	.75716	.54536
10.300	-7.941	30.35669	.93392	.08744	-.06504	.02392	.01147	.76188	.54716
10.300	-6.919	30.31333	.93507	.08568	-.06423	.02128	.00990	.76397	.54593
10.300	-5.949	30.28797	.93639	.08461	-.06436	.02136	.00837	.76591	.54532
10.300	-4.945	30.26840	.93872	.08414	-.06462	.02338	.01644	.76836	.54584
10.300	-3.932	30.24545	.94106	.08375	-.06597	.02165	.01474	.77054	.54661
10.300	-2.963	30.23614	.94398	.08363	-.06640	.01987	.00931	.77294	.54780
10.300	-2.022	30.22837	.94582	.08325	-.06685	.01832	.00136	.77530	.54810
10.300	-1.052	30.21808	.94511	.08230	-.06727	.01523	.00220	.77626	.54743
10.300	-0.524	30.21969	.94637	.08229	-.06767	.01567	.00223	.77768	.54975
10.300	1.012	30.22207	.94870	.08361	-.06825	.01367	.00393	.77975	.54161
10.300	GRADIENT	"	.00150	-.00024	-.00025	-.00164	-.00175	.00149	.00157

LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RP0008) (15 AUG 73)

REFERENCE DATA

BETEF = 21.7866 30. IN. XHPP = 6.2932 INCHES
 LUEF = 3.5611 INCHES YHPP = .0000 INCHES
 GRPF = 7.0231 INCHES ZHPP = .0000 INCHES
 SCALE = .0075

RUN NO. S/D RFLV = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLW	CBL	CYN	CL	CY	L/C
10.300	-6.784	35.47251	1.17369	.08036	-.09174	.01365	.01303	.13037	.90375
10.300	-7.799	35.44237	1.17991	.08076	-.09190	.01464	.01134	.13589	.90921
10.300	-6.809	35.40361	1.18466	.08065	-.09224	.01204	.00977	.11843	.91434
10.300	-5.803	35.37139	1.18946	.08069	-.09232	.01106	.00814	.11557	.91845
10.300	-4.890	35.33981	1.19274	.08032	-.09302	.00830	.00641	.10456	.92148
10.300	-3.863	35.31669	1.19394	.08072	-.09308	.00533	.00453	.09306	.92290
10.300	-2.931	35.30791	1.19526	.08035	-.09350	.00562	.00291	.08854	.92436
10.300	-1.994	35.29810	1.19629	.08076	-.09369	.00422	.00135	.08355	.92573
10.300	-1.005	35.28879	1.19752	.08173	-.09365	.00279	-.00055	.07718	.92704
10.300	-0.040	35.27935	1.19740	.08092	-.09449	.00134	-.00226	.07212	.92874
10.300	.967	35.29064	1.19973	.08780	-.09476	-.00020	-.00406	.06570	.92649
10.300	GRADIENT	"	.00104	-.00031	-.00109	-.00025	-.00141	.00176	.00155

(RP0008) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 30.000
 AILRON = .000

ALPHA = 30.000
 AILRON = .000

ALPHA = 35.000
 AILRON = .000

ALPHA = 35.000
 AILRON = .000

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TABULATED SOURCE DATA - CPH196 (LA-11)

LA-11,CFHT 96, ROCKWELL ORB. D698 WHD. NOSE

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(RPP009) (15 AUG 73)

REFERENCE DATA

BREF = 21.7006 58.1IN. XDP = 6.2902 INCHES
 LREF = 3.5611 INCHES YDP = .0000 INCHES
 SREF = 7.0851 INCHES ZDP = .0000 INCHES
 SCALE = .0075

RUN NO. 12/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	CL	CM	CR	CY	CL	CM	CR	CY	CL	CM	CR	CY	L/D
MACH	ALPHA	BETA	CH	CA	.08779	-.02060	.00056	-.00110	-.00296	.12412	.00057	1.36884	
10.300	9.906	.000699	.15796	.06551	.27016	-.21795	.00225	-.00110	-.00196	.24392	.13333	1.82944	
10.300	15.032	.00750	.03793	.07033	.46921	-.01774	-.00095	-.00123	-.00178	.37940	.21266	1.78406	
10.300	19.906	.000699	.03793	.07033	.46921	-.02229	-.00046	-.00126	-.00236	.53113	.33114	1.65394	
10.300	25.165	.000699	.03793	.07033	.46921	-.07366	-.00133	-.00126	-.00271	.67421	.47479	1.42003	
10.300	30.169	.000699	.03793	.07033	.46921	-.07222	-.00137	-.00124	-.00422	.82467	.67827	1.21943	
10.300	35.313	.000699	.03793	.07033	.46921	-.04479	-.00219	-.00114	-.00220	.9792	.82300	-.01224	
GRADIENT -.00005													

LA-11,CFHT 96, ROCKWELL ORB. D698 WHD. NOSE

(RPP010) (15 AUG 73)

REFERENCE DATA

BREF = 21.7006 58.1IN. XDP = 6.2902 INCHES
 LREF = 3.5611 INCHES YDP = .0000 INCHES
 SREF = 7.0851 INCHES ZDP = .0000 INCHES
 SCALE = .0075

RUN NO. 13/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	CL	CM	CR	CY	CL	CM	CR	CY	CL	CM	CR	CY	L/D
MACH	ALPHA	BETA	CH	CA	.08777	-.01664	.00092	.00078	.03575	.09217	.137784		
10.300	9.977	-.00136	.14104	.06877	.20005	-.01761	.00463	.00471	.03594	.25963	.14333	1.61146	
10.300	15.136	-.00107	.03617	.07056	.44564	-.01713	-.00499	.00636	.03262	.39436	.21954	1.79630	
10.300	19.905	-.00095	.03617	.07056	.44564	-.02034	-.00591	.00692	.03084	.54283	.33498	1.62047	
10.300	25.062	-.00076	.03617	.07056	.44564	-.02640	-.00820	.00705	.03051	.69386	.49156	1.41157	
10.300	30.226	-.00067	.03617	.07056	.44564	-.04478	-.00570	.00690	.03204	.83572	.68702	1.21645	
10.300	35.383	-.00067	.03617	.07056	.44564	-.07916	-.00100	.00005	.02013	.107021	.02334	-.01236	
GRADIENT -.00005													

PARAMETRIC DATA

BETA = .000
 AIRON = .000

PARAMETRIC DATA

BETA = -.000
 AIRON = .000

PARAMETRIC DATA

BETA = -.000
 AIRON = .000

DATE 10 SEP 74

TABULATED SOURCE DATA - CFM198 (LA-11)

LA-11,CFMT 96, ROCKWELL ORB. 0898 W/MOD. NOSE

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(RPPC011) (15 AUG 73)

REFERENCE DATA

SREF = 21.7066 56. IN. XREF = 6.2932 INCHES
 LREF = 5.5611 INCHES YREF = .0000 INCHES
 BREF = 7.0251 INCHES ZREF = .0000 INCHES
 SCALE = .0075

RUN NO. 21/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CLW	CA	CLW	CLW	CY	CL	CD	L/D
10.350	-6.956	9.92675	.12844	.07548	-.01495	.00960	.00445	.00149	.11350	.59549
10.350	-7.692	9.94604	.13012	.07257	-.01625	.00771	.00465	.00153	.59394	.122884
10.350	-6.951	9.96952	.13119	.07185	-.01763	.00654	.00461	.00153	.58459	.09248
10.350	-5.934	9.98292	.13248	.06999	-.01860	.00553	.00421	.00176	.5834	.09190
10.350	-4.938	9.99371	.13269	.06819	-.01915	.00443	.00395	.00174	.58284	.09178
10.350	-3.956	10.00000	.13403	.06662	-.01969	.00351	.00272	.00248	.58168	.09199
10.350	-3.008	10.02291	.13651	.06918	-.01886	.00334	.00214	.00264	.58164	.12239
10.350	-1.971	10.03476	.13758	.06747	-.01955	.00238	.00127	.01311	.58131	.136787
10.350	-.991	10.04295	.14054	.06913	-.01997	.00137	.00001	.01599	.58135	.09255
10.350	-1.013	10.04367	.14368	.07017	-.02079	.00062	-.00116	.01244	.58147	.13743
10.350	1.021	10.05253	.14240	.07749	-.02059	.00120	-.00226	.02351	.58151	.35779
10.350	GRADIENT	.00611	.03184	.00329	-.00186	-.00152	-.00175	.00104	.00175	.01004

LA-11,CFMT 96, ROCKWELL ORB. 0898 W/MOD. NOSE

REFERENCE DATA

SREF = 21.7066 56. IN. XREF = 6.2932 INCHES
 LREF = 5.5611 INCHES YREF = .0000 INCHES
 BREF = 7.0251 INCHES ZREF = .0000 INCHES
 SCALE = .0075

RUN NO. 21/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CLW	CA	CLW	CLW	CY	CL	CD	L/D	
10.300	-6.031	15.03655	.27710	.07893	-.01487	.00823	.00317	.00067	.24716	.14692	
10.300	-6.031	15.04883	.27659	.07638	-.01614	.00814	.00357	.00055	.24728	.14556	
10.300	-7.042	15.05426	.27651	.07576	-.01747	.00688	.00391	.00065	.24926	.14550	
10.300	-6.003	15.05636	-.417	.07026	-.01722	.01569	.00733	.04224	.24650	.13908	
10.300	-5.011	15.07205	.27856	.07180	-.01788	.01489	.00457	.03815	.25031	.14277	
10.300	-4.006	15.07164	.28120	.07132	-.01907	.00390	.00356	.02978	.25314	.14180	
10.300	-3.001	15.07102	.28236	.06972	-.01969	.00297	.00261	.02767	.25554	.14074	
10.300	-1.995	15.06391	.27786	.06605	-.01881	.00225	.00220	.01122	.25112	.13608	
10.300	-1.012	15.06346	.28328	.06794	-.01858	.00126	.00149	.02541	.25584	.13932	
10.300	.009	15.07483	.28459	.06835	-.01864	.00031	-.00107	.00137	.25693	.13999	
10.300	1.027	15.06603	.28536	.06859	-.01894	.00059	-.00222	.00245	.25738	.14042	
10.300	GRADIENT	.00266	.03046	-.00042	.00311	-.00089	-.00123	-.001748	.00095	-.00017	.00850

(RPPD012) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 10.000
 ATURN = .000

ELEVTR = -10.000

BCFLAP = -14.250

ALPHA = 10.000
 ATURN = .000

ELEVTR = -10.000

BCFLAP = -14.250

DATE 10 SEP 73

TABULATED SOURCE DATA - CPHT96 (LA-11)

LA-11,CFHT 96, ROCKWELL CRB. 0498 W/HOD. NOSE

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(15 AUG 73)

(RFC013)

PARAMETRIC DATA

REFERENCE DATA

SREF = 21.7006 30. IN. XHPP = 6.2902 INCHES
 LREF = 3.5611 INCHES YHPP = .0000 INCHES
 DREF = 7.0251 INCHES ZHPP = .0000 INCHES
 SCALE = .0075

RUN NO. 10/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	CN	CA	CLM	CL	CYN	CY	CD	L/D
MACH	.07567	-.01385	.01113	.01121	.06771	.38534	.22205	1.73540
BETA	.03622	.07567	-.01385	.01113	.01121	.06771	.22160	1.75363
10.300	-9.092	20.13025	.44152	.01541	.01051	.05723	.38695	
10.300	-8.086	20.12634	.44152	.01541	.01051	.04839	.39291	1.76996
10.300	-7.079	20.12281	.44528	.01528	.01074	.05971	.39644	
10.300	-6.072	20.11830	.44696	.01514	.01077	.06036	.39817	1.77774
10.300	-5.065	20.11376	.45793	.01533	.01073	.06040	.39816	
10.300	-4.058	20.11347	.45467	.01586	.01617	.05417	.02876	1.77902
10.300	-3.052	20.11349	.45837	.01535	.01667	.05293	.02337	
10.300	-2.045	20.11516	.45697	.01541	.01687	.05187	.01268	1.78625
10.300	-1.039	20.12097	.45777	.01514	.01639	.05183	.02052	
10.300	-.033	20.12167	.45835	.01525	.01642	.05073	.01118	1.78870
10.300	.014	20.12114	.45933	.01519	.01635	.050105	.00276	
10.300	1.015	20.12114	.45933	.01519	.01635	.050105	.00276	1.79571
GRADIENT	.00177	.00078	.00011	.000102	.000102	.000102	.000102	.00193

LA-11,CFHT 96, ROCKWELL CRB. 0498 W/HOD. NOSE

REFERENCE DATA

SREF = 21.7006 30. IN. XHPP = 6.2902 INCHES
 LREF = 3.5611 INCHES YHPP = .0000 INCHES
 DREF = 7.0251 INCHES ZHPP = .0000 INCHES
 SCALE = .0075

RUN NO. 10/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	CN	CA	CLM	CL	CYN	CY	CD	L/D
MACH	.07567	-.01385	.01123	.01211	.06630	.38534	.34215	1.57051
BETA	.03620	.07567	-.01385	.01123	.01116	.05796	.34203	1.59296
10.300	-9.090	20.20612	.63660	.01931	.01040	.04891	.54485	
10.300	-7.982	20.16467	.63660	.01931	.01040	.04891	.54593	1.59787
10.300	-7.075	20.17409	.63941	.01995	.02020	.05756	.54776	
10.300	-6.068	20.18037	.64036	.02020	.02054	.05825	.03231	1.61050
10.300	-5.061	20.14681	.64086	.02054	.02084	.05853	.02464	
10.300	-4.054	20.13703	.64034	.02084	.02114	.05356	.00401	1.61571
10.300	-3.047	20.13095	.64355	.02144	.02261	.05116	.01221	
10.300	-1.040	20.12618	.64823	.02261	.02257	.05055	.00560	1.62932
10.300	1.012	20.12316	.64926	.02253	.02253	.05032	.00159	
GRADIENT	-.00225	.00148	.00047	.00037	.00250	.00156	.00267	.00115

LA-11,CFHT 96, ROCKWELL CRB. 0498 W/HOD. NOSE

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = -10.000

AILORN = .000 BDFLAP = -14.250

	CL	CD	L/D
ALPHA	.38534	.34215	1.57051
AILORN	.000	.000	

(RFC014)

(15 AUG 73)

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TABULATED SOURCE DATA - CFHT96 (LA-11)

LA-11,CFHT 35, ROCKWELL CRB. 0368 W/MOD. NOSE

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(RPD015) (15 AUG 73)

REFERENCE DATA

BETAP =	21.7666 30.1IN.	YAWP =	6.2902 INCHES
LNDP =	5.5611 INCHES	YAWP =	.0000 INCHES
GRADP =	7.0251 INCHES	ZHWP =	.00000 INCHES
SCALE =	.0075		

RUN NO. 17/0 ROLL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CL	CD	CY	CL	CD	LD
10.300	-6.9203	30.35975	.61284	.01287	.01820	.51356	.06620	.69647	.50032
10.300	-7.919	30.36290	.46031	.02867	.11039	.61184	.05693	.70253	.50288
10.300	-6.939	30.28750	.36273	.02914	.03076	.51019	.03071	.70473	.50302
10.300	-5.922	30.22721	.66008	.07712	.12853	.50519	.00167	.70446	.70379
10.300	-4.912	30.26731	.66253	.07511	.12811	.50086	.00742	.70456	.49999
10.300	-3.904	30.25249	.66345	.07711	.02663	.50251	.17561	.70705	.50164
10.300	-2.974	30.24219	.66520	.07610	.02950	.50359	.17406	.61841	.50155
10.300	-1.961	30.22459	.66641	.07504	.02899	.50459	.00227	.71241	.50237
10.300	-0.951	30.22779	.66774	.07440	.03004	.50556	.00171	.71234	.50109
10.300	.007	30.22222	.66919	.07293	.03047	.50131	.00119	.71326	.50234
10.300	1.007	30.22375	.67032	.07154	.03115	.50267	.00267	.71393	.50346
	GRADIENT			.00049	.00753	.00161	.00170	.00157	.00198

LA-11,CFHT 35, ROCKWELL CRB. 0368 W/MOD. NOSE

(RPD016) (15 AUG 73)

PARAMETRIC DATA

BETAP =	21.7666 30.1IN.	YAWP =	6.2902 INCHES
LNDP =	5.5611 INCHES	YAWP =	.0000 INCHES
GRADP =	7.0251 INCHES	ZHWP =	.00000 INCHES
SCALE =	.0075		

RUN NO. 15/0 ROLL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CL	CD	CY	CL	CD	LD
10.300	-6.753	35.54967	1.07956	.01233	.01378	.50497	.03261	.69166	.50379
10.300	-7.748	35.52016	1.09682	.01518	.01210	.50569	.03460	.69460	.50462
10.300	-6.801	35.47630	1.08173	.01779	.04492	.00920	.01059	.69399	.51077
10.300	-5.826	35.44364	1.09869	.01746	.04546	.00757	.00887	.69122	.51406
10.300	-4.804	35.41997	1.10016	.01744	.04523	.00806	.01722	.65331	.70226
10.300	-3.875	35.40219	1.10178	.01727	.04596	.00451	.01542	.62622	.70197
10.300	-2.809	35.37567	1.10229	.01715	.04579	.00268	.00375	.61954	.70141
10.300	-1.845	35.37196	1.10321	.01691	.04326	.00117	.00237	.61144	.85668
10.300	-0.803	35.36257	1.10370	.01645	.04563	.00051	.00074	.50362	.85747
10.300	-0.864	35.35936	1.10723	.01662	.04629	.00029	.00046	.65865	.70324
10.300	.964	35.35900	1.10753	.01683	.04551	.00064	.00094	.65676	.70360
	GRADIENT			.00134	.00014	.00168	.00165	.00157	.00196

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TABULATED SOURCE DATA - CFNTS6 (LA-11)

LA-11, CFNT 94, ROCKWELL CRB. DENS WIND. NOSE

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(MPCD17) (15 AUG 73)

REFERENCE DATA

SPOT = 21.7000 IN. XREF = 6.3502 INCHES
LWDF = 3.3601 INCHES YREF = .0000 INCHES
SPOT = 7.0031 INCHES ZREF = .0000 INCHES
SCALE = .0075

RUN NO. S3V 0 RNL = 1.00 GRADIENT INTERVAL = -.5.00/.5.00

ALPHA	BETA	CR	CL	CM	CR	CL	CM	CR	CL	CM	L/D
10.300	.00337	.13001	.00069	.00051	.00127	-.00125	.02441	.00655	.00655	.00655	1.34425
10.300	.00268	.27705	.00020	.00020	.00020	-.00020	.26993	.13763	.13763	.13763	1.81620
10.300	.00240	.43264	.07156	.07156	.07156	-.07156	.35160	.21962	.21962	.21962	1.70307
10.300	.00247	.69267	.07366	.07366	.07366	-.07366	.34327	.34171	.34171	.34171	1.59686
10.300	.00311	.84637	.07377	.07377	.07377	-.07377	.69313	.49123	.49123	.49123	1.41101
10.300	.00371	.90520	.07377	.07377	.07377	-.07377	.69732	.51751	.51751	.51751	1.21751
10.300	.00337	1.00000	.07377	.07377	.07377	-.07377	.02653	.02350	.02350	.02350	-.01152
10.300	.00000	.00000	.00000	.00000	.00000	-.00000	.00000	.00000	.00000	.00000	

(MPCD18) (15 AUG 73)

LA-11, CFNT 95, ROCKWELL CRB. DENS WIND. NOSE

REFERENCE DATA

SPOT = 21.7000 IN. XREF = 6.3502 INCHES
LWDF = 3.3601 INCHES YREF = .0000 INCHES
SPOT = 7.0031 INCHES ZREF = .0000 INCHES
SCALE = .0075

RUN NO. S3V 0 RNL = 1.00 GRADIENT INTERVAL = -.5.00/.5.00

ALPHA	BETA	CR	CL	CM	CR	CL	CM	CR	CL	CM	L/D
9.300	-.02127	.14213	.07154	-.01463	.00477	.00465	.03633	.12880	.09546	.09546	1.34322
10.300	-.02100	.28268	.07226	-.01356	.00450	.00440	.03640	.28095	.14490	.14490	1.70346
10.300	.00357	.45566	.07367	-.00096	.00482	.00474	.03649	.02374	.1.76477	.1.76477	
10.300	.00353	.67618	.07375	-.00595	.00595	.00595	.03672	.55536	.34633	.34633	1.67362
10.300	.00353	.85470	.07372	-.01352	.00577	.00569	.03669	.69975	.49965	.49965	1.57037
10.300	.00314	1.01514	.07372	-.02653	.00534	.00574	.03674	.84471	.69442	.69442	1.21625
10.300	.00388	1.04460	.07377	-.02357	.00530	.00530	.03674	.02351	.02351	.02351	-.01121
10.300	.00000	.00000	.00000	.00000	.00000	-.00000	.00000	.00000	.00000	.00000	

GRADIENT

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TABULATED SOURCE DATA - CPHT93 (LA-11)

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LA-11,CPHT 93, ROCKWELL CRB. 0696 W/HDD. NOSE

(RPT019) (15 AUG 73)

REFERENCE DATA

	21.7768 50. IN.	WHTP =	6.2922 INCHES	
	5.9611 INCHES	YHTP =	.0000 INCHES	
	7.0251 104-23	ZHTP =	.0000 INCHES	
SCALE =	.00075			

RUN NO. 300/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CN	CLM	CR	CY	CD	L/D
10.300	.9929	.99300	.07486	-.01380	.00062	.00150	1.19716
	-7.973	9.99485	.07535	-.01380	.00146	.00050	1.20343
10.300	-6.922	9.99572	.07101	-.01610	.00535	.05772	1.1163
10.300	-5.953	9.99612	.07056	-.01606	.00523	.00426	1.11656
10.300	-4.988	9.99738	.06960	-.01653	.00434	.00406	1.11649
10.300	-3.929	9.99828	.06874	-.01719	.00360	.00337	1.11646
10.300	-2.968	9.99831	.06874	-.01673	.00358	.00303	1.12065
10.300	-2.007	10.01659	.06748	-.01770	.00214	.00142	1.12770
10.300	-1.035	10.01568	.06780	-.01790	.00216	.00031	1.12667
10.300	-0.061	10.01534	.06736	-.01669	.00261	-.00098	1.12151
10.300	.935	10.00307	.07010	-.01650	-.00016	-.00214	1.12457
10.300	GRADIENT	.0014C	.00022	-.00036	-.00176	-.00105	.00117

LA-11,CPHT 93, ROCKWELL CRB. 0696 W/HDD. NOSE

(RPT020) (15 AUG 73)

REFERENCE DATA

	21.7668 50. IN.	WHTP =	6.2902 INCHES	
	5.9611 INCHES	YHTP =	.0000 INCHES	
	7.0251 INCHES	ZHTP =	.0000 INCHES	
SCALE =	.00075			

RUN NO. 300/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CN	CLM	CR	CY	CD	L/D
10.300	-.9939	14.93803	.07911	-.01477	.00094	.00114	1.66165
10.300	-7.985	14.94051	.07780	-.01211	.00767	.00851	1.66363
10.300	-6.930	14.94259	.07584	-.01337	.00656	.00590	1.64583
10.300	-5.961	14.94575	.07308	-.01312	.00545	.00703	1.62900
10.300	-4.995	14.94859	.07332	-.01339	.00470	.00472	1.62311
10.300	-3.972	14.95032	.07147	-.01503	.00366	.00392	1.61994
10.300	-2.999	14.95249	.07040	-.01520	.00265	.00266	1.61956
10.300	-2.019	14.95659	.07397	-.01472	.00113	.00232	1.61955
10.300	-1.000	14.96050	.07634	-.01411	.00116	.00147	1.61952
10.300	.999	14.96126	.07637	-.01445	.00131	.00205	1.61950
10.300	GRADIENT	.0014C	.00027	-.00036	-.00117	-.00063	.00060

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TABULATED SOURCE DATA - CPH796 (LA-11)

LA-11,CFHT 96, ROCKWELL CRB. D698 W/HOD. NOSE

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(RPC021) (15 AUG 73)

REFERENCE DATA

SREF = 21.7866 56. IN. XRPD = 6.2932 INCHES
 LREF = 3.5651 INCHES YRPD = .0000 INCHES
 BREF = 7.0251 INCHES ZRPD = .0000 INCHES
 SCALE = .0075

RUN NO. 37/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CL	CY	C	CD	L/D
10.300	-9.046	22.10920	.43409	.07653	-.00686	.01110	.06741	.38131	.22111	1.72451
10.300	-8.019	20.08997	.43694	.07514	-.00870	.01097	.05923	.36451	.22371	1.74211
10.300	-7.057	20.08634	.44233	.07438	-.00962	.00746	.01003	.04674	.36984	1.75732
10.300	-6.057	20.08571	.44167	.07370	-.00988	.00613	.00841	.04010	.36946	1.76246
10.300	-5.023	20.08625	.44520	.07302	-.01036	.00593	.00653	.03413	.36307	1.77389
10.300	-4.026	20.08708	.45093	.07384	-.01149	.00596	.00486	.02686	.35810	1.77429
10.300	-3.014	20.08979	.45241	.07410	-.01197	.00287	.00350	.01872	.35941	1.77501
10.300	-2.026	20.08622	.45285	.07302	-.01163	.00194	.00214	.01196	.40019	1.78322
10.300	-1.030	20.08532	.45459	.07278	-.01158	.00084	.00087	.00446	.45191	1.78992
10.300	.014	20.08166	.45157	.07213	-.01058	-.00038	-.00113	-.03289	.39931	1.79287
10.300	1.008	20.08711	.45592	.07239	-.01047	-.00118	-.00270	-.01373	.41939	1.79793
	GRADIENT	-0.01021		.00038	-.00042	.00027	-.00101	-.01151	-.00016	.050481

LA-11,CFHT 96, ROCKWELL CRB. D698 W/HOD. NOSE

(OPP022) (15 AUG 73)

REFERENCE DATA

SREF = 21.7866 56. IN. XRPD = 6.2942 INCHES
 LREF = 3.5651 INCHES YRPD = .0000 INCHES
 BREF = 7.0251 INCHES ZRPD = .0000 INCHES
 SCALE = .0075

RUN NO.	36/0	RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00
MACH	BETA	ALPHA
10.300	-9.030	25.23783
10.300	-8.030	25.24574
10.300	-7.080	25.22296
10.300	-5.959	25.21694
10.300	-5.007	25.20408
10.300	-4.024	25.20069
10.300	-2.990	25.18476
10.300	-1.995	25.17946
10.300	-1.026	25.17467
10.300	-0.015	25.17538
10.300	1.000	25.17828
	GRADIENT	-.00098

PARAMETRIC DATA

ALPHA = 25.000 ELEVTR = -20.000
 AIRON = .000 BOFLAP = -14.250

RUN NO.	36/0	RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00
MACH	BETA	ALPHA
10.300	-9.030	25.23783
10.300	-8.030	25.24574
10.300	-7.080	25.22296
10.300	-5.959	25.21694
10.300	-5.007	25.20408
10.300	-4.024	25.20069
10.300	-2.990	25.18476
10.300	-1.995	25.17946
10.300	-1.026	25.17467
10.300	-0.015	25.17538
10.300	1.000	25.17828
	GRADIENT	-.00098

PARAMETRIC DATA

ALPHA = 25.000 ELEVTR = -20.000
 AIRON = .000 BOFLAP = -14.250

LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RFDC023) (15 AUG 73)

REFERENCE DATA

SREF = 21.7696 56-IN. XRP = 6.2902 INCHES
 LREF = 3.5611 INCHES YRP = .0000 INCHES
 BREF = 7.0251 INCHES ZRP = .0000 INCHES
 SCALE = .0075

RUN NO. 34/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLW	CL	CY	CL	CD	L/D
10.300	-6.905	30.32170	.84451	.07968	-.01374	.01172	.01340	.06585	.49514
10.300	-7.931	30.29214	.84504	.07930	-.01373	.01046	.01169	.05762	.49472
10.300	-6.922	30.27076	.84598	.07876	-.01364	.00915	.00993	.04876	.49634
10.300	-5.931	30.24117	.85041	.07824	-.01357	.00752	.00649	.04046	.49593
10.300	-4.945	30.22379	.85047	.07899	-.01313	.00605	.00702	.03267	.49698
10.300	-3.963	30.21345	.85080	.07736	-.01359	.00470	.00562	.02479	.49629
10.300	-2.956	30.20352	.85515	.07683	-.01443	.00318	.00389	.01740	.49041
10.300	-1.955	30.19725	.85785	.07645	-.01519	.00169	.00214	.01060	.49281
10.300	-1.039	30.19089	.85837	.07587	-.01533	.00025	.00060	.00398	.49378
10.300	.015	30.18447	.85498	.07526	-.01322	-.00148	-.00131	-.00316	.49488
10.300	1.020	30.18946	.86047	.07646	-.01589	-.00285	-.00289	-.01069	.49878
10.300	GRADIENT	-.00691	.00149	-.00024	-.00045	-.00151	-.00168	-.00717	.00147

LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RFDC024) (15 AUG 73)

REFERENCE DATA

SREF = 11.7696 56-IN. XRP = 6.2902 INCHES
 LREF = 3.5611 INCHES YRP = .0000 INCHES
 BREF = 7.0251 INCHES ZRP = .0000 INCHES
 SCALE = .0075

RUN NO. 34/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLW	CL	CY	CL	CD	L/D
10.300	-6.725	35.44936	1.07754	.07916	-.02854	.01125	.01340	.06426	.63187
10.300	-7.726	35.40772	1.06074	.07674	-.02823	.00971	.01178	.05698	.63524
10.300	-6.789	35.37271	1.06549	.07830	-.02792	.00813	.01010	.04841	.63804
10.300	-5.815	35.34647	1.08019	.07798	-.02769	.00637	.00855	.04046	.64412
10.300	-4.877	35.31159	1.08770	.07792	-.02745	.00505	.00684	.03319	.64255
10.300	-3.989	35.29563	1.09043	.07761	-.02723	.00348	.00499	.02526	.64515
10.300	-2.993	35.27515	1.09371	.07763	-.02714	.00191	.00337	.01720	.64795
10.300	-1.935	35.26334	1.09302	.07640	-.02722	.00025	.00193	.00393	.64835
10.300	-0.963	35.26446	1.09665	.07762	-.02753	-.00139	.00042	.00184	.65060
10.300	.017	35.26169	1.09998	.07717	-.02789	-.00290	-.00118	-.00556	.65115
10.300	.997	35.25852	1.09411	.07674	-.02816	-.00456	-.00293	-.01322	.64910
10.300	GRADIENT	-.00672	.00129	-.00017	-.00014	-.00165	-.00164	-.00794	.00126

(RFDC024) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = -20.000
 AIRRON = .000 BOFLAP = -14.250

(RFDC025) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = -20.000
 AIRRON = .000 BOFLAP = -14.250

(RFDC025) (15 AUG 73)

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TABULATED SOURCE DATA - CFHT96 (LA-11)
LA-11,CFHT 96, ROCKWELL ORB. 0598 WHOD. NOSE

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(RP0025) (15 AUG 73)

PARAMETRIC DATA

REFERENCE DATA

SREF = 21.7006 50.1M. XTRP = 6.2902 INCHES
 LREF = 5.5611 INCHES YTRP = .0000 INCHES
 BREF = 7.0251 INCHES ZTRP = .0000 INCHES
 SCALE = .0075

RUN NO. 02/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLW	CL	CM	CY	CL	CD	L/D
10.300	10.000	-.00194	.13158	.07299	-.01461	.000772	-.13121	-.000221	.11673	.08460	1.23387
10.300	15.032	-.00191	.27170	.06976	-.00932	.000948	-.05120	-.00240	.24433	.13794	1.77125
10.300	20.134	-.00106	.43364	.07380	-.0C121	.000312	-.07145	-.00235	.36174	.21655	1.74666
10.300	25.224	-.00034	.52565	.07971	-.30223	-.00023	-.05131	-.00282	.35200	.33673	1.57055
10.300	30.192	-.00184	.62359	.07929	-.00141	-.00092	-.00149	-.00352	.67215	.48214	1.39406
10.300	35.333	-.00291	1.05482	.06289	-.00602	-.00174	-.05130	-.00503	.61260	.67764	.19915
	GRADIENT	-.00002	.03651	.00046	.00059	-.00010	-.00010	-.00010	.02775	.02298	-.00636

LA-11,CFHT 96, ROCKWELL ORB. 0598 WHOD. NOSE

(RP0026) (15 AUG 73)

PARAMETRIC DATA

REFERENCE DATA

SREF = 21.7006 50.1M. XTRP = 6.2902 INCHES
 LREF = 5.5611 INCHES YTRP = .0000 INCHES
 BREF = 7.0251 INCHES ZTRP = .0000 INCHES
 SCALE = .0075

RUN NO. 03/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLW	CL	CM	CY	CL	CD	L/D
10.300	9.971	-4.92274	.13721	.07442	-.01665	.00065	.03012	.03959	.12226	.09706	1.25960
10.300	15.009	-4.98457	.27672	.07056	-.00651	.00395	.03106	.04900	.13982	.178089	
10.300	20.110	-.00156	.44037	.37546	-.00329	.00464	.00656	.03237	.39106	.22354	1.74938
10.300	25.186	-.4.97923	.63264	.07911	.00032	.00551	.03697	.03143	.53983	.34081	1.58103
10.300	30.276	-.4.91637	.84223	.09163	.00093	.00607	.00693	.03079	.66610	.49528	1.36527
10.300	35.394	-.4.81760	1.08605	.08410	-.00547	.00552	.00567	.03901	.82196	.68716	1.19616
	GRADIENT	.00424	.03674	.00046	.00035	.00029	.00019	.00011	.02785	.02324	-.00944

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TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11, CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RPO027) (15 AUG 73)

REFERENCE DATA

	RUN NO.	68/ D	RVAL =	1.00	GRADIENT INTERVAL =	-5.00/ 5.00	
SREF =	21.7086 50. IN.	XRP	=	6.2902 INCHES			
LREF =	3.5611 INCHES	YRP	=	.0000 INCHES			
BREF =	7.0251 INCHES	ZRP	=	.0000 INCHES			
SCALE =	.0075						

	RUN NO.	68/ D	RVAL =	1.00	GRADIENT INTERVAL =	-5.00/ 5.00	
MACH	ALPHA	CN	CLW	CLL	CYN	CL	L/D
BETA		.07743	-.07692	.00789	.00415	.00006	.09666
10.500	-9.926	9.93719	.11903	.07539	.00676	.07073	1.07234
10.500	-7.931	9.96976	.12032	.07536	.00690	.07040	1.10699
10.500	-6.942	9.98164	.12092	.07536	.01068	.07057	1.16224
10.500	-5.955	9.99553	.12453	.07309	.01179	.07057	1.17370
10.500	-4.968	10.01461	.12569	.07170	.01249	.07057	1.20373
10.500	-3.980	10.02487	.12940	.07057	.01304	.07053	1.25119
10.500	-2.977	10.04776	.13222	.07032	.01353	.07224	1.27754
10.500	-1.978	10.03682	.13176	.06911	.01496	.07193	1.29314
10.500	-0.985	10.05426	.13420	.07023	.01411	.07127	1.29532
10.500	-.004	10.05690	.13493	.07122	.01429	.07126	1.29496
10.500	.992	10.06003	.13593	.07253	.01432	.07106	1.23753
10.500	GRADIENT	.37743	.00136	.00028	-.00051	-.00001	.00674

LA-11, CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RPO028) (15 AUG 73)

REFERENCE DATA

	RUN NO.	68/ D	RVAL =	1.00	GRADIENT INTERVAL =	-5.00/ 5.00	
SREF =	21.7086 50. IN.	XRP	=	6.2902 INCHES			
LREF =	3.5611 INCHES	YRP	=	.0000 INCHES			
BREF =	7.0251 INCHES	ZRP	=	.0000 INCHES			
SCALE =	.0075						

PARAMETRIC DATA

	ALPHA =	AIRON =	ELEVTR =	BDFLAP =		
MACH	10.000	.0000	-40.000	-14.250	L/D	
BETA	14.96338	.07636	.00661	.00750	.07913	
10.500	-9.035	14.96471	.07355	-.00679	.00613	
10.500	-8.022	14.97117	.07279	-.00657	.00776	
10.500	-7.016	14.97634	.07216	-.00683	.00498	
10.500	-6.022	14.98034	.07205	-.00696	.00405	
10.500	-5.030	14.99342	.07231	-.00690	.00372	
10.500	-4.035	15.00111	.07262	-.01046	.00261	
10.500	-3.016	15.00306	.06844	.00165	.01263	
10.500	-2.000	15.00532	.06920	-.01074	.00113	
10.500	-1.008	15.00756	.07540	.06991	-.01014	
10.500	-.004	15.01191	.07472	.07059	-.00016	
10.500	.998	15.01060	.07542	-.00013	.00000	
10.500	GRADIENT	.00217	-.00125	-.00075	-.00126	.00754

PARAMETRIC DATA

	ALPHA =	AIRON =	ELEVTR =	BDFLAP =	
MACH	15.000	.0000	-40.000	-14.250	L/D
BETA	23.9212	.23441	.14317	.162128	.09666
10.500	-7.959	.23650	.13879	.14066	.1.66638
10.500	-6.944	.23855	.13859	.1.72134	.1.70599
10.500	-5.939	.23669	.13619	.1.73939	.1.73471
10.500	-4.944	.24268	.13990	.1.78165	.1.78362
10.500	-3.939	.24493	.13562	.1.78390	.1.73730
10.500	-2.933	.24597	.13632	.1.78273	.1.77531
10.500	-1.938	.24723	.13666	.1.77850	.1.77853
10.500	-.932	.24779	.13933	.00321	.00321

(RPO028) (15 AUG 73)

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TABULATED SOURCE DATA - CPHT98 (LA-11)

LA-11,CFHT 98, ROCKWELL CRB. 0698 W/HOD. NOSE

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(RPD029) (15 AUG 73)

REFERENCE DATA

SREF = 21.70868 SR. IN. XREF = 6.2902 INCHES
 LREF = 3.5611 INCHES YREF = .0000 INCHES
 BREF = 7.0251 INCHES ZREF = .0000 INCHES
 SCALE = .0075

REFERENCE DATA

RUN NO. 67/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00
 MACH ALPHA CN CA CLN CBN CY CL CD L/D
 10.300 -.0.080 20.04291 .42182 .07965 .00053 .01031 .01019 .07111 .36698 .21939 1.68160
 10.300 -.0.045 20.04340 .42484 .07776 -.00116 .00061 .00593 .05964 .37246 .21866 1.70342
 10.300 -.0.045 20.03854 .42859 .07612 -.00272 .00708 .00925 .04958 .37656 .21837 1.72441
 10.300 -.7.046 20.03854 .42859 .07612 -.00272 .00708 .00925 .04196 .37858 .21823 1.73472
 10.300 -.6.040 20.03736 .43043 .07531 -.00305 .00385 .00808 .03408 .37864 .21794 1.73736
 10.300 -.5.045 20.03723 .43040 .07501 -.00330 .00482 .00651 .03408 .37864 .21653 1.74392
 10.300 -.4.018 20.03641 .43245 .07485 -.00392 .00591 .00521 .02840 .36170 .21712 1.75330
 10.300 -.3.015 20.03415 .43223 .07332 -.00353 .00307 .00366 .01777 .36090 .21632 1.76505
 10.300 -.2.011 20.03431 .43262 .07243 -.00278 .00259 .00201 .01131 .36182 .21632 1.76505
 10.300 -.1.011 20.03454 .43767 .07533 -.00470 .00093 .00039 .051519 .36544 .22052 1.74769
 10.300 .000 20.03396 .43624 .07562 -.00361 .00010 .00010 .03175 .36462 .21862 1.75934
 10.300 1.007 20.03545 .43443 .07328 -.00305 .00069 .00069 .030350 .36303 .21768 1.75961
 10.300 GRADIENT .00011 .00076 -.00011 .00006 -.00098 -.00161 -.00676 .00075 .00016 .00217

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = -40.000
 ATIRON = .000 BDFLAP = -14.250

(RPD030) (15 AUG 73)

REFERENCE DATA

RUN NO. 66/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00
 MACH ALPHA CN CA CLN CBN CY CL CD L/D
 10.300 -.9.033 25.24677 .61773 .06342 .03247 .01133 .01156 .07026 .52314 1.54354
 10.300 -.6.016 25.23616 .62119 .06117 .03200 .00971 .00918 .06018 .52726 1.55876
 10.300 -.7.012 25.21790 .62243 .06071 .00395 .00829 .05930 .05930 .52877 1.56331
 10.300 -.6.022 25.20423 .62350 .07933 .00044 .00702 .00847 .06177 .53036 .33658 1.57730
 10.300 -.5.015 25.19927 .62366 .07851 .00586 .00700 .00556 .02332 .53272 .33697 1.58090
 10.300 -.4.000 25.18770 .62548 .07821 .00321 .00452 .00452 .02332 .53272 .33707 1.58382
 10.300 -.3.016 25.17174 .62653 .07799 .00200 .00358 .00358 .01853 .53386 .33863 1.58650
 10.300 -.2.004 25.17235 .63025 .07796 -.00108 .00202 .00202 .01258 .53724 .34056 1.58206
 10.300 -.1.002 25.17291 .63248 .07904 -.00149 .00063 .00063 .00543 .53879 .34056 1.58206
 10.300 .008 25.17035 .63136 .07966 -.00132 .00010 .00010 .00177 .53753 .34056 1.57812
 10.300 1.002 25.17879 .63162 .07936 -.00169 .00042 .00042 .00294 .53764 .34056 1.57926
 10.300 GRADIENT -.00140 .00135 .00034 -.00113 -.00113 -.00113 .00109 .00109 .00287 -.00287

PARAMETRIC DATA

ALPHA = 25.000 ELEVTR = -40.000
 ATIRON = .000 BDFLAP = -14.250

(RPD030) (15 AUG 73)

LA-11,CFHT 96, ROCKWELL ORB. 0698 W/MOD. NOSE

(RPDC31) (15 AUG 73)

REFERENCE DATA

SREF = 21.7606 50. IN. XRP = 6.2902 INCHES
 LREF = 3.5611 INCHES YRP = .0000 INCHES
 BREF = 7.0251 INCHES ZRP = .0000 INCHES
 SCALE = .0075

RUN NO. 65/ 0 RVNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLW	CL	CYN	CY	CLD	L/D
10.300	-6.920	30.30470	.82515	.08356	.00340	.01131	.01324	.06967	.67024
10.300	-7.915	30.29631	.63114	.08296	.00106	.01020	.01166	.67577	.49093
10.300	-6.937	30.28222	.63254	.08227	.00292	.00694	.01055	.05336	.67763
10.300	-5.946	30.23696	.63134	.08125	.00112	.00762	.00656	.04123	.67730
10.300	-4.957	30.21607	.83292	.08094	.00166	.00222	.00725	.03233	.67900
10.300	-5.980	30.20976	.63516	.08076	.00101	.00481	.00558	.02543	.68111
10.300	-2.969	30.19615	.63709	.08037	.00056	.00397	.00390	.01839	.68308
10.300	-1.973	30.18759	.63819	.07989	.00039	.00207	.00217	.01137	.68434
10.300	-1.002	30.18919	.63960	.07941	.00035	.00170	.00145	.01451	.68580
10.300	-.008	30.18624	.64093	.07956	.00092	.00291	.00129	.02292	.68687
10.300	.992	30.17845	.64135	.07994	.00076	.00225	.00140	.01140	.68713
10.300	GRADIENT	-.001613	.07142	-.00023	-.00143	-.00172	-.001717	.00139	.00344

LA-11,CFHT 96, ROCKWELL ORB. 0698 W/MOD. NOSE

(RPDC32) (15 AUG 73)

REFERENCE DATA

SREF = 21.7606 50. IN. XRP = 6.2902 INCHES
 LREF = 3.5611 INCHES YRP = .0000 INCHES
 BREF = 7.0251 INCHES ZRP = .0000 INCHES
 SCALE = .0075

RUN NO. 64/ 0 RVNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLW	CL	CYN	CY	CLD	L/D
10.300	-6.740	35.35769	1.08124	.08461	-.00716	.01159	.01345	.06665	.81414
10.300	-7.750	35.31619	1.06695	.08594	-.00685	.01013	.01164	.06637	.61968
10.300	-6.763	35.48249	1.07060	.08336	-.00606	.00869	.01059	.02339	.68931
10.300	-5.823	35.44743	1.07274	.08359	-.00597	.00719	.00866	.0274	.1.19452
10.300	-4.855	35.42550	1.07401	.08374	-.00531	.00572	.00694	.03510	.692554
10.300	-3.876	35.31125	1.07937	.08362	-.00491	.00433	.00520	.02716	.68664
10.300	-2.916	35.30797	1.07629	.08318	-.00476	.00282	.00355	.01130	.62766
10.300	-1.931	35.37659	1.07681	.08316	-.00497	.00131	.00211	.01115	.62982
10.300	-.977	35.37363	1.07850	.08310	-.00577	-.0004	.00051	.03129	.63129
10.300	-.003	35.37016	1.07583	.08261	-.00590	-.00160	-.00123	.0409	.62916
10.300	.969	35.37204	1.07484	.08276	-.00582	-.00263	-.00165	.01176	.62853
10.300	GRADIENT	-.00944	.00082	-.00017	-.00117	-.00151	-.00165	.00039	-.00015

(RPDC33) (15 AUG 73)

PARAMETRIC DATA

MACH	ALPHA	ATLRON	CL	CD	L/D
			35.000	ELEVTR = .000	-40.000
			.000	BFFLAP =	-14.250

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TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11,CFHT 96, ROCKWELL CRB. 0090 W/MOD. NOSE

(RP0033) (15 AUG 73)

REFERENCE DATA

SREF = 21.7866 SQ.IN. XRP = 6.2922 INCHES
 LINEF = 3.5611 INCHES YRP = .0000 INCHES
 BREF = 7.0251 INCHES ZRP = .0000 INCHES
 SCALE = .0075

RUN NO. 78/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLH	CLL	CY	CD	L/D
10.300	9.936	-.00335	.17819	.07541	-.04990	-.00034	-.00061	.16178	1.48396
10.300	14.986	-.03041	.33653	.08165	-.06508	-.00215	-.00050	.30590	1.83829
10.300	20.126	-.03256	.53486	.09297	-.08395	-.00258	-.00066	.47023	1.73303
10.300	25.076	-.00779	.74759	.10255	-.10398	-.00373	-.00022	.63348	1.54643
10.300	30.125	-.01171	.96069	.10929	-.12801	-.00515	-.00163	.79338	1.35220
10.300	35.252	-.01592	1.23636	.11782	-.15617	-.00612	-.00172	.94527	1.16315
10.300	GRADIENT	-.00049	.04207	.00161	-.00419	-.00020	.00005	.03129	-.01637

LA-11,CFHT 96, ROCKWELL CRB. 0090 W/MOD. NOSE

(RP0034) (15 AUG 73)

REFERENCE DATA

SREF = 21.7866 SQ.IN. XRP = 6.2922 INCHES
 LINEF = 3.5611 INCHES YRP = .0000 INCHES
 BREF = 7.0251 INCHES ZRP = .0000 INCHES
 SCALE = .0075

RUN NO. 78/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLH	CLL	CY	CD	L/D
10.300	9.969	-4.91849	.16429	.07561	-.04522	.00375	.00403	.14869	1.44405
10.300	14.999	-4.97637	.32811	.08360	-.06179	.00317	.00351	.29524	1.3586
10.300	20.104	-4.99619	.52160	.09182	-.07971	.00248	.00275	.43845	.26558
10.300	25.136	-4.97931	.75584	.09986	-.11768	.00217	.00270	.62269	1.72821
10.300	30.235	-4.98159	.97690	.10979	-.12376	.00199	.00217	.78877	1.54741
10.300	35.351	-4.82423	1.23793	.11903	-.15374	.00173	.0026	.94083	1.34419
10.300	GRADIENT	.00370	.04241	.00171	-.00422	-.00008	-.00022	.03158	-.01651

(RP0034) (15 AUG 73)

PARAMETRIC DATA

BETA = .000 ELEVTR = 10.000
 AIRRN = .000 BDFLAP = -14.250

BETA = .000 ELEVTR = 10.000
 AIRRN = .000 BDFLAP = -14.250

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TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RFD037) (15 AUG 73)

REFERENCE DATA

SHEET = 21.7000 30. IN. XREF = 6.2902 INCHES
 LINEF = 3.5611 INCHES YREF = .0000 INCHES
 SREF = 7.0251 INCHES ZREF = .0000 INCHES
 SCALE = .0075

PARAMETRIC DATA

ALPHA = 25.000 ELEVTR = 10.000
 ALTRON = .0000 BDFLAP = -14.250

	RUN NO.	82/ 0	RNL =	1.00	GRADIENT INTERVAL = -3.00/ 5.00	CY	CZ	CD	L/D
						CLH	CLL		
MACH	BETA	ALPHA	CN			.00003	.01375	.02185	.40869
10.300	-9.048	21.20396	.73677	.10314	-.09450	.00003	.05705	.02564	1.52896
	-6.033	21.19357	.74031	.10395	-.09316	.00003	.04784	.01137	1.53687
	-7.027	21.16924	.74224	.10275	-.09749	.00474	.01015	.03692	1.54391
	-6.020	21.16196	.74375	.10140	-.09659	.00545	.00213	.00080	1.54787
	-5.022	21.15157	.74520	.10093	-.09966	.00360	.00729	.02351	1.54891
	-4.010	21.14990	.74741	.10104	-.10068	.00396	.01654	.03362	1.55323
	-3.000	21.13725	.74995	.10056	-.10155	-.00021	.00561	.03621	1.55941
	-2.000	21.13614	.75147	.10141	-.10201	-.00132	.00393	.01050	1.54974
	-1.006	21.14426	.75265	.10161	-.10225	-.00267	.00216	.00154	1.54999
	-0.006	21.13034	.75258	.10170	-.10215	-.00350	.00327	.00251	1.54735
	1.001	21.13299	.75204	.10222	-.10213	-.00457	.00138	.00948	.41195
	2.001	21.13278	.00000	.00000	-.00027	-.00027	-.00111	-.00174	-.00050
	3.001	GRADIENT						.00072	.00060

LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE (RFD038) (15 AUG 73)

REFERENCE DATA

SHEET = 21.7000 30. IN. XREF = 6.2902 INCHES
 LINEF = 3.5611 INCHES YREF = .0000 INCHES
 SREF = 7.0251 INCHES ZREF = .0000 INCHES
 SCALE = .0075

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = 10.000
 ALTRON = .0000 BDFLAP = -14.250

	RUN NO.	82/ 0	RNL =	1.00	GRADIENT INTERVAL = -5.00/ 5.00	CY	CZ	CD	L/D
						CLH	CLL		
MACH	BETA	ALPHA	CN			.00024	.01166	.07027	.45238
10.300	-9.063	20.05617	.51635	.09320	-.07225	.00005	.01137	.05862	1.45772
	-8.089	20.06387	.51826	.09399	-.07462	.00005	.04879	.04879	1.71129
	-7.056	20.06515	.52246	.09244	-.07732	.00354	.00901	.04127	1.72517
	-6.044	20.05809	.52233	.09244	-.07244	.00244	.00715	.03581	1.72941
	-5.041	20.05953	.52293	.09212	-.07632	.00136	.00397	.02655	1.73246
	-4.033	20.04993	.52764	.09206	-.06013	.00032	.00461	.01871	1.73586
	-3.029	21.05866	.53061	.09214	-.06146	.00061	.01118	.06927	1.73836
	-2.010	20.04925	.53296	.09157	-.06159	-.00061	.00173	.00407	1.74100
	-1.013	20.05277	.53297	.09225	-.06176	-.00183	.00173	.03241	1.73999
	1.002	20.05716	.53242	.09225	-.06122	-.00270	.00153	.03966	1.73961
	2.007	20.05407	.53116	.09246	-.06112	-.00349	-.00153	-.00053	.00039
	3.007	GRADIENT						.00082	.000713

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TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RPD039) (15 AUG 73)

REFERENCE DATA

SREF = 21.7686 SB. IN. XHDP = 6.2902 INCHES
 LREF = 3.5611 INCHES YHDP = .0000 INCHES
 EREF = 7.0251 INCHES ZHDP = .0000 INCHES
 SCALE = .0075

RUN NO. 81/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CN	CA	CLM	CL	CY	CZ	CD	LC
10.300	-9.050	14.99259	.325956	.035352	-.055353	.008024	.00795	.07987	.29150
10.300	-9.050	14.99057	.327379	.069317	-.056917	.007748	.007817	.29314	.17101
10.300	-7.034	15.00585	.326226	.067658	-.05864	.00551	.00672	.05703	.29439
10.300	-6.022	15.00721	.32640	.06451	-.059446	.00436	.00643	.04575	.29531
10.300	-5.020	15.02035	.32360	.06385	-.06132	.00326	.00531	.05756	.29680
10.300	-4.008	15.02243	.33471	.06375	-.06285	.00217	.00529	.05281	.30155
10.300	-3.006	15.02561	.33607	.06305	-.06392	.00107	.00434	.02065	.30505
10.300	-2.004	15.03650	.33769	.06219	-.06401	.00014	.00339	.01258	.30481
10.300	-1.002	15.03526	.33747	.06093	-.06339	.00084	.00113	.00468	.30492
10.300	-0.014	15.03628	.33601	.06105	-.06341	-.00177	-.00221	.30541	.30597
10.300	1.734	15.04004	.33633	.06122	-.06331	-.00260	-.00161	.30586	.16624
10.300	GRAD1 JNT	.00325	.00068	-.00030	-.00095	-.00018	-.00118	.00275	.00036

LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RPD040) (15 AUG 73)

REFERENCE DATA

SREF = 21.7686 SB. IN. XHDP = 6.2902 INCHES
 LREF = 3.5611 INCHES YHDP = .0000 INCHES
 EREF = 7.0251 INCHES ZHDP = .0000 INCHES
 SCALE = .0075

RUN NO. 80/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CN	CA	CLM	CL	CY	CZ	CD	LC
10.300	9.87145	.15896	.08123	-.03621	.00928	.00458	.00175	.14266	.10727
10.300	-9.936	9.89457	.15975	.07980	-.04014	.00706	.00469	.08934	.14269
10.300	-7.982	9.90155	.16076	.07741	-.04118	.00649	.00461	.14503	.10393
10.300	-6.939	9.90211	.16297	.07642	-.04247	.00526	.00453	.04796	.14734
10.300	-5.946	9.93253	.16299	.07539	-.04386	.00404	.00399	.03981	.14825
10.300	-4.932	9.94452	.16375	.07454	-.04504	.00356	.00299	.03204	.15382
10.300	-3.957	9.96043	.16995	.07844	-.04642	.00224	.00182	.02254	.15659
10.300	-2.971	9.96912	.17267	.07781	-.04746	.00173	.00136	.01410	.15649
10.300	-1.976	9.98011	.17242	.07686	-.04836	-.00033	.00053	.00576	.15654
10.300	0.982	9.97866	.17485	.07761	-.04744	-.00080	-.00265	.00266	.15930
10.300	0.005	9.96200	.17561	.07873	-.04796	-.00162	-.00171	.01074	.15870
10.300	.982	9.96491	.17498	.07653	-.04787	-.00100	-.00266	.00160	.00567
10.300	GRADIENT	.00287	.00170	-.00036	-.00086	-.00100	-.00266	-.00160	.00567

PARAMETRIC DATA

ALPHA = 15.0000
 ATIRON = .0000

(RPD039) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 10.0000
 ATIRON = .0000

(RPD040) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 15.0000
 ATIRON = .0000

(RPD039) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 10.0000
 ATIRON = .0000

(RPD040) (15 AUG 73)

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TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11,CFHT 96, ROCKWELL CRB. 0098 W/HOD. NOSE

(RFD041) (15 AUG 73)

REFERENCE DATA

SREF = 21.7066 SQ.IN. **XREF =** 6.2902 INCHES
LREF = 3.5611 INCHES **YREF =** .0000 INCHES
BREF = 7.0251 INCHES **ZREF =** .0000 INCHES
SCALE = .0075

RUN NO. 21/1 RAVL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00
 MACH ALPHA BETA CN CA LM CBL CYN CL CD L/D
 10.300 10.078 -.00390 .14833 .07053 -.02368 .00296 -.00142 .13370 .09340 1.40140
 10.300 15.066 -.00265 .28916 .06933 -.02282 .00370 -.00156 .26115 .14220 1.63640
 10.300 20.103 .02365 .40216 .07533 -.02502 .00316 -.00196 .40655 .222616 1.79564
 10.300 25.263 .00550 .66531 .07881 -.03239 .00705 -.00232 .56804 .35521 1.59916
 10.300 30.170 .01106 .87653 .07839 -.04191 .00651 -.00265 .71849 .50833 1.41343
 10.300 35.301 .01780 1.12321 .06287 -.06237 .00981 -.00287 .86863 .71659 1.21217
 GRADIENT .00087 .03675 .00053 -.00140 .00090 -.00096 -.00015 .02454 -.01367

LA-11,CFHT 96, ROCKWELL CRB. 0098 W/HOD. NOSE

(RFD042) (15 AUG 73)

REFERENCE DATA

SREF = 21.7066 SQ.IN. **XREF =** 6.2902 INCHES
LREF = 3.5611 INCHES **YREF =** .0000 INCHES
BREF = 7.0251 INCHES **ZREF =** .0000 INCHES
SCALE = .0075

RUN NO. 25/0 RAVL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00
 MACH ALPHA BETA CN CA CLM CBL CYN CL CD L/D
 10.300 9.868 -.93605 1.4961 .07166 -.02064 .00380 .03621 .13494 .09649 1.35340
 10.300 15.179 -.99924 .30253 .07568 -.02312 .00840 .03624 .27268 .19032 1.81402
 10.300 20.149 -.01006 .47656 .07571 -.02511 .01648 .05618 .13264 .42132 .233523 1.79108
 10.300 25.102 -.98363 .68706 .07859 -.03070 .01345 .00624 .03082 .57145 .52311 1.61213
 10.300 30.319 -.91006 .89711 .06136 -.04120 .01614 .00587 .03142 .52333 .72619 1.20942
 10.300 35.332 -.80319 1.13652 .08394 -.06072 .01779 .00541 .03158 .87827 -.02474 -.01326
 GRADIENT .00329 .03696 .02249 -.00147 .00045 .00007 -.02224 .02959 .02474 -.01326

PARAMETRIC DATA

BETA = -.000 ELEVTR = .000
ALURON = 10,000 BOFLAP = -14.250

BETA = .000 ELEVTR = -10,000
ALURON = 10,000 BOFLAP = -14.250

BETA = -.000 ELEVTR = -10,000
ALURON = 10,000 BOFLAP = -14.250

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TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RPPD43) (15 AUG 73)

REFERENCE DATA

WIND = 21.7000 30. IN. 100F = 6.2902 INCHES
LIFT = 5.5611 INCHES 100F = .0000 INCHES
DRAG = 7.0821 INCHES 200F = .0000 INCHES
SCALE = .00079

RUN NO. 30/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CL	CTN	CT	CD	CLD
11.300	-6.930	5.82068	.19065	.07421	.01626	.01123	.00406	.08564	.11608	.29111
11.300	-7.309	9.84146	.13437	.07329	.01979	.00932	.00429	.06750	.11987	.09510
10.300	-6.931	9.86736	.13502	.07077	.02076	.00870	.00417	.05708	.12090	.09286
10.300	-5.982	9.88617	.13478	.06993	.02181	.00765	.00346	.04720	.12092	.09117
10.300	-4.949	9.89847	.13413	.06951	.02186	.00654	.00346	.03823	.12065	.09060
10.300	-3.947	9.90926	.13932	.06629	.02169	.00578	.00265	.02977	.12449	.09124
10.300	-2.957	9.92256	.14102	.06990	.02258	.00523	.00119	.02304	.12887	.09315
10.300	-1.997	9.92977	.13957	.06704	.02227	.00420	.00199	.01447	.12992	.09011
10.300	-1.030	9.92940	.14281	.06936	.02261	.00334	.00101	.01633	.12871	.09295
10.300	.082	9.93040	.14429	.07091	.02289	.00269	.00125	.00136	.12990	.09473
10.300	1.006	9.93703	.14276	.07050	.02332	.00186	.00224	.000912	.12851	.09386
	GRADIENT	.00132	.00037	-.00026	-.00080	-.00080	-.00094	-.00796	.00123	.00050

LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RPPD44) (15 AUG 73)

REFERENCE DATA

WIND = 21.7.36 30. IN. 100F = 6.2902 INCHES
LIFT = 5.5611 INCHES 100F = .0000 INCHES
DRAG = 7.0821 INCHES 200F = .0000 INCHES
SCALE = .00079

RUN NO. 30/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CL	CTN	CT	CD	CLD
10.300	-6.046	14.91671	.28230	.07963	.02026	.01261	.00691	.07695	.25197	.14950
10.300	-6.015	14.93130	.27965	.07745	.02137	.01133	.00591	.06776	.25026	.14689
10.300	-7.032	14.94156	.29156	.07311	.02233	.01036	.00536	.05725	.25267	.14517
10.300	-6.016	14.94642	.27706	.07026	.02176	.00913	.00646	.04213	.24956	.13935
10.300	-5.046	14.95625	.28269	.07220	.02250	.00944	.00413	.03680	.25445	.14282
10.300	-3.985	14.95670	.28452	.07182	-.02393	.00732	.00311	.02892	.25633	.14282
10.300	-3.023	14.96857	.28325	.07054	-.02420	.00639	.00222	.02070	.25542	.14130
10.300	-2.028	14.96968	.28105	.06616	-.02326	.00572	.00189	.01121	.25443	.13652
10.300	-1.009	14.97350	.28651	.06093	-.02319	.00453	.00097	.00516	.25898	.14062
10.300	.088	14.98724	.28573	.06796	-.02284	.00365	-.00138	-.00591	.25644	.13954
10.300	1.036	14.97546	.28425	.06643	-.02275	.00267	-.00291	-.00816	.25691	.13956
	GRADIENT	.00443	.00033	-.00062	-.00029	-.00093	-.00122	-.00731	.00047	.00049

PARAMETRIC DATA

ALPHA	10.000	ELEVTR	= -10.000
ATTIRON	10.000	EDFLAP	= -14.250
ALPHA = 10.000	CL = .08564	CLD = .11608	L/D = 1.21673
ATTIRON = 10.000	CL = .06750	CLD = .11987	L/D = 1.25942
ALPHA = 10.000	CL = .05708	CLD = .12090	L/D = 1.37165
ATTIRON = 10.000	CL = .04417	CLD = .12092	L/D = 1.32635
ALPHA = 10.000	CL = .03468	CLD = .12020	L/D = 1.33177
ATTIRON = 10.000	CL = .03346	CLD = .12065	L/D = 1.37534
ALPHA = 10.000	CL = .02656	CLD = .12449	L/D = 1.35197
ATTIRON = 10.000	CL = .02304	CLD = .12887	L/D = 1.39743
ALPHA = 10.000	CL = .01447	CLD = .12992	L/D = 1.38473
ATTIRON = 10.000	CL = .01271	CLD = .12871	L/D = 1.37121
ALPHA = 10.000	CL = .00796	CLD = .12990	L/D = 1.36914
ATTIRON = 10.000	CL = .00096	CLD = .12851	L/D = .04453
ALPHA = 15.000	CL = .08564	CLD = .11608	L/D = 1.38473
ATTIRON = 10.000	CL = .06750	CLD = .11987	L/D = 1.25942
ALPHA = 15.000	CL = .05708	CLD = .12090	L/D = 1.37165
ATTIRON = 10.000	CL = .04417	CLD = .12092	L/D = 1.32635
ALPHA = 15.000	CL = .03468	CLD = .12020	L/D = 1.33177
ATTIRON = 10.000	CL = .03346	CLD = .12065	L/D = 1.37534
ALPHA = 15.000	CL = .02656	CLD = .12449	L/D = 1.35197
ATTIRON = 10.000	CL = .02304	CLD = .12887	L/D = 1.39743
ALPHA = 15.000	CL = .01447	CLD = .12992	L/D = 1.38473
ATTIRON = 10.000	CL = .01271	CLD = .12871	L/D = 1.37121
ALPHA = 15.000	CL = .00796	CLD = .12990	L/D = 1.36914
ATTIRON = 10.000	CL = .00096	CLD = .12851	L/D = .04453

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TABULATED SOURCE DATA - CFMT4 (LA-1)

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LA-11,CFMT 96, ROCKWELL CRB, 0608 W/HCD, NOSE

(RFD045) (15 AUG 73)

REFERENCE DATA

SPECY	21.7466 IN.	XDP	6.2002 INCHES
LDP	3.5611 INCHES	YDP	.0000 INCHES
SPECY	7.0251 INCHES	ZDP	.0000 INCHES
SCALE	.0075		

RUN NO. 28/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CL	CD	CM	CR	CL	CD	CM	CR
10.300	-6.062	SD.09628	.44249	.07734	-.00204	.01629	.01014	.00850	.22468	.1.73126		
10.300	-6.036	SD.08545	.44107	.07692	-.00235	.01431	.01026	.00456	.22191	.1.75062		
10.300	-7.041	SD.07932	.44245	.07474	-.02439	.01277	.00927	.04576	.22184	.1.76756		
10.300	-6.035	SD.08345	.44620	.07509	-.02462	.01149	.00784	.00965	.22255	.1.77874		
10.300	-5.064	SD.06691	.45351	.07348	-.02721	.01051	.00591	.03390	.22477	.1.78267		
10.300	-4.046	SD.06533	.45453	.07367	-.02800	.00936	.00408	.02753	.22527	.1.78273		
10.300	-3.011	SD.07837	.45562	.07335	-.02823	.00821	.00270	.01911	.22531	.1.78757		
10.300	-1.979	SD.07347	.45650	.07357	-.02807	.00716	.00137	.01189	.40540	.22647	.1.79039	
10.300	-1.089	SD.07793	.45748	.07327	-.02855	.00632	-.00037	.02575	.40452	.22867	.1.79097	
10.300	-0.013	SD.07336	.45962	.07254	-.02823	.00530	-.00171	.02127	.40666	.22826	.1.79750	
10.300	.966	SD.07646	.45565	.07201	-.02477	.00407	-.00331	.00766	.40324	.22046	.1.79369	
10.300	GRADIENT	.00101	.00048	.00028	.00027	-.00134	-.00147	-.00892	.00055	-.00011	.00327	

LA-11,CFMT 96, ROCKWELL CRB, 0608 W/HCD, NOSE
(RFD046) (15 AUG 73)

REFERENCE DATA

SPECY	21.7466 IN.	XDP	6.2002 INCHES
LDP	3.5611 INCHES	YDP	.0000 INCHES
SPECY	7.0251 INCHES	ZDP	.0000 INCHES
SCALE	.0075		

RUN NO. 28/0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CL	CD	CM	CR	CL	CD	CM	CR	
10.300	-6.029	SD.17276	.63265	.06756	-.02655	.01930	.01071	.00644	.53626	.34200	L/D	1.57391	
10.300	-6.021	SD.19160	.63638	.07951	-.02910	.01734	.00962	.03674	.54225	.34244		1.58351	
10.300	-6.000	SD.13469	.63726	.07600	-.02961	.01575	.00703	.04103	.54360	.34120		1.59339	
10.300	-5.027	SD.12004	.67832	.07001	-.03001	.01571	.00782	.03536	.54555	.34067		1.60142	
10.300	-5.063	SD.1168	.67651	.07622	-.03229	.01365	.00631	.03307	.54420	.33915		1.60403	
10.300	-5.094	SD.12076	.67919	.07639	-.03075	.01191	.00473	.02296	.54653	.34000		1.60708	
10.300	-5.006	SD.08233	.63977	.07456	-.03577	.01075	.00231	.01718	.54761	.33920		1.61442	
10.300	-1.056	SD.08976	.54193	.07511	-.03175	.00903	.00121	.01115	.54916	.34005		1.61496	
10.300	-1.013	SD.08423	.54398	.07751	-.03237	.00795	-.00235	.00474	.55217	.34005		1.62192	
10.300	.004	SD.08503	.64143	.07680	-.03217	.00685	-.00216	.00177	.54893	.34157		1.65533	
10.300	1.014	SD.08243	.64435	.07712	-.03235	.00577	-.00175	-.00013	.55083	.34310		1.60547	
10.300	GRADIENT	-.00219	.00100	.00038	.00037	-.00124	-.00170	-.00364	.00076	.00074			-.00126

PARAMETRIC DATA

ALPHA	20.000	ELEVTR	-10.000
AIRCON	10.000	BDFLAP	-14.250

ALPHA	25.000	ELEVTR	-10.000
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ALPHA	20.000	ELEVTR	-14.250
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ALPHA	25.000	ELEVTR	-10.000
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ALPHA	20.000	ELEVTR	-14.250
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TABULATED SOURCE DATA - CPMTS (LA-11)

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LA-11,CPMT 94, RODGELL CRB. 0000 WHT. NOSE

(15 AUG 73)

REFERENCE DATA

SURF = 21.7066 50.1IN. 100P = 6.25E2 INCHES
REF = 3.5611 INDEX 100P = .0000 INDEXES
REF = 7.0821 INDEX 200P = .0000 INDEXES
SCALE = .0075

RUN NO. 2710 RPL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ALPHA	CN	CA	CLW	CLL	CYN	CT	CL	CD	LD
MACH	-6.035	30.37082	.86143	.00300	-.04035	.03712	.01229	.06593	.71819	.51780	1.39700
10.300	-7.915	30.34544	.86141	.00251	-.04037	.02070	.01065	.05686	.71907	.51633	1.39244
10.300	-6.936	30.31421	.86125	.00165	-.04036	.01934	.01394	.04651	.71953	.51528	1.39536
10.300	-5.916	30.29566	.86123	.00061	-.04036	.01780	.00742	.03975	.72022	.51415	1.40000
10.300	-4.936	30.27163	.86216	.00216	-.04036	.01629	.00597	.03136	.72165	.51364	1.40496
10.300	-3.975	30.26112	.86461	.00335	-.04117	.01469	.00459	.02463	.72375	.51530	1.40453
10.300	-2.937	30.24277	.86690	.00771	-.04210	.01329	.00256	.01790	.72505	.51556	1.40486
10.300	-1.974	30.23709	.86941	.00766	-.04295	.01160	.00062	.01186	.72653	.51612	1.41175
10.300	-0.966	30.22613	.87029	.00769	-.04239	.01041	-.00096	.00573	.72859	.51559	1.41312
10.300	1.008	30.22073	.86930	.00764	-.04237	.00914	-.00060	.00553	.72970	.51546	1.41378
10.300	2.007	30.22293	.86245	.007922	-.04301	.00715	-.00017	.00666	.73121	.51777	1.41222
10.300	3.007	30.22477	.86150	-.00324	-.00036	-.00130	-.00003	.00149	.00346	.00162	.00162
GRADIENT			-.00739								

LA-11,CPMT 94, RODGELL CRB. 0000 WHTD. NOSE

(15 AUG 73)

REFERENCE DATA

SURF = 21.7066 50.1IN. 100P = 6.25E2 INCHES
REF = 3.5611 INDEX 100P = .0000 INDEXES
REF = 7.0821 INDEX 200P = .0000 INDEXES
SCALE = .0075

RUN NO. 2810 RPL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ALPHA	CN	CA	CLW	CLL	CYN	CT	CL	CD	LD
MACH	-6.728	35.41640	1.18288	.00467	-.06069	.00007	.01133	.06459	.71843	.71843	1.20282
10.300	-7.717	35.37635	1.18254	.00466	-.06064	.00235	.01033	.05695	.72009	.72009	1.20673
10.300	-6.774	35.34167	1.12748	.00365	-.06019	.00066	.00894	.04606	.72043	.72043	1.20945
10.300	-5.813	35.31179	1.13224	.00362	-.05969	.01368	.00724	.03311	.72132	.72132	1.21155
10.300	-4.830	35.28484	1.13416	.00394	-.05979	.01797	.00554	.02564	.72256	.72256	1.21233
10.300	-3.862	35.25783	1.13471	.00311	-.05969	.01634	.00363	.01632	.72288	.72288	1.21340
10.300	-2.807	35.24568	1.13682	.00319	-.05950	.01506	.00314	.01057	.72325	.72325	1.21387
10.300	-1.855	35.22213	1.13592	.00270	-.06039	.01166	.00159	.00273	.72314	.72314	1.21603
10.300	-0.894	35.22267	1.13663	.00264	-.06049	.00166	-.00159	.00466	.72395	.72395	1.21697
10.300	.027	35.21361	1.13644	.00251	-.06076	.00097	-.00266	.00442	.72409	.72409	1.21675
10.300	.901	35.22004	1.13654	.00200	-.06030	-.00166	-.00169	.00366	.00319	.00319	.00319
GRADIENT			-.01109								

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = -10.000
 ALPHOR = 10.000 BDFLAP = -14.250

(15 AUG 73)

PARAMETRIC DATA

ALPHA = 35.000 ELEVTR = -10.000
 ALPHOR = 10.000 BDFLAP = -14.250

(15 AUG 73)

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TABULATED SOURCE DATA - CFHTS6 (LA-11)

LA-11,CFHT 96, ROCKWELL ORB. 0698 W/MOD. NOSE

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(RP0049) (15 AUG 73)

REFERENCE DATA

SREF =	21.7866 56. IN.	XHPP =	0.2902 INCHES
LREF =	5.5611 INCHES	YHPP =	.00000 INCHES
BREF =	7.0251 INCHES	ZHPP =	.00000 INCHES
SCALE =	.0075		

RUN NO. 41/ D RVNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CLL	CYN	CY	CD	CLD
10.300	10.114	-.00121	.14238	-.02194	-.00120	-.00094	-.00260	.12816
10.300	15.096	-.00114	.27874	-.01986	-.00254	-.00076	-.00390	.24994
10.300	20.165	-.00237	.44130	-.02145	-.00333	-.00071	-.00861	.13801
10.300	25.192	-.00692	.62971	-.02653	-.00649	-.00042	-.00516	.36900
10.300	30.227	-.01325	.83636	-.07582	-.03510	-.00938	-.00690	.53739
10.300	35.405	-.02197	1.07264	-.07959	-.04993	-.01217	-.00870	.68449
GRADIENT	-0.00082	.03687	.00050	-.00106	-.00044	-.00006	-.00223	.82816
								.68650
								.120674
								-.01347

LA-11,CFHT 96, ROCKWELL ORB. 0698 W/MOD. NOSE

REFERENCE DATA

SREF =	21.7866 56. IN.	XHPP =	0.2902 INCHES
LREF =	5.5611 INCHES	YHPP =	.00000 INCHES
BREF =	7.0251 INCHES	ZHPP =	.00000 INCHES
SCALE =	.0075		

RUN NO. 42/ D RVNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CLL	CYN	CY	CD	CLD
10.300	9.644	-.67966	.14397	-.11724	.00310	.00363	.03302	.12995
10.300	14.971	-.93961	.28736	-.07167	-.01909	.00166	.00900	.03454
10.300	20.114	-.93999	.45872	-.07545	-.02045	.00448	.00630	.03267
10.300	25.382	-.94220	.65334	-.07597	-.02473	-.00779	.00787	.02757
10.300	30.380	-.86505	.86196	-.07858	-.03297	-.00254	.00634	.02700
10.300	35.471	-.79226	1.05434	-.08082	-.04829	-.00463	.00856	.02754
GRADIENT	.00343	.03704	.00043	-.00112	-.00029	.00020	-.00036	.02810
								.02353
								-.01300

(RP0050) (15 AUG 73)

PARAMETRIC DATA

BETA =	-5.000	ELEVTR =	-10.000
AIRCON =	-10.000	BOFLAP =	-14.250

BETA =	'000	ELEVTR =	-10.000
AIRCON =	-10.000	BOFLAP =	-14.250

C2

LA-11, CFHT 96, ROCKWELL ORB. 0698 W/MOD. NOSE

(RPD051) (15 AUG 73)

REFERENCE DATA

SREF = 21.7886 56.1IN. XRPF = 6.2902 INCHES
 LREF = 5.5611 INCHES YRPF = .0000 INCHES
 BREF = 7.0251 INCHES ZRPF = .0000 INCHES
 SCALE = .0075

RUN NO. 48/ 0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH BETA ALPHA CN CA CLM CBL CYN CY CL CD LD
 10.300 -6.937 9.86268 -.12907 .07485 -.01489 .00747 .00482 .08077 .11335 .09568 1.18466
 10.300 -7.928 9.88370 .12826 .07301 -.01630 .00619 .00482 .06805 .11383 .09394 1.221171
 10.300 -6.935 9.90257 .13002 .07140 -.01770 .00505 .00471 .05761 .11581 .092770 1.24933
 10.300 -5.955 9.92066 .13129 .07040 -.01856 .00395 .00433 .04738 .11720 .09197 1.27433
 10.300 -4.968 9.93761 .13226 .06993 -.01915 .00290 .00409 .03798 .11865 .09087 1.30571
 10.300 -3.966 9.94694 .13787 .07074 -.01940 .00252 .00222 .03165 .12358 .09350 1.32175
 10.300 -2.969 9.95703 .13935 .07206 -.02039 .00159 .00164 .02279 .12534 .09314 1.345772
 10.300 -1.984 9.97201 .13810 .06753 -.02051 .00070 .00151 .01274 .12432 .09043 1.37478
 10.300 -7.953 9.97124 .14085 .06981 -.02146 .00030 .00130 .00524 .12663 .09314 1.35961
 10.300 -1.002 9.98816 .14227 .07079 -.02210 .00106 .00213 .01168 .12786 .09435 1.35522
 10.300 .993 9.98950 .14260 .07123 -.02205 .00189 .00196 .01168 .12812 .09485 1.35079
 10.300 GRADIENT .00145 .00023 -.00054 -.00084 -.00031 .00136 .00149 .00138 -.00131 .00778

LA-11, CFHT 96, ROCKWELL ORB. 0698 W/MOD. NOSE

(RPD052) (15 AUG 73)

REFERENCE DATA

SREF = 21.7886 56.1IN. XRPF = 6.2902 INCHES
 LREF = 5.5611 INCHES YRPF = .0000 INCHES
 BREF = 7.0251 INCHES ZRPF = .0000 INCHES
 SCALE = .0075

RUN NO. 47/ 0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH BETA ALPHA CN CA CLM CBL CYN CY CL CD LD
 10.300 -9.045 14.99040 .27308 .07609 -.01572 .00673 .00813 .07628 .24410 .14414 1.69356
 10.300 -8.036 15.00599 .27435 .07413 -.01707 .00532 .00792 .06473 .24590 .14264 1.72326
 10.300 -7.015 15.00935 .27524 .07137 -.01828 .00395 .00621 .05106 .24737 .14022 1.76418
 10.300 -6.022 15.01063 .27731 .07073 -.01942 .00286 .00738 .04213 .24933 .14014 1.78059
 10.300 -5.025 15.02539 .27927 .07284 -.01900 .00213 .00484 .03760 .25084 .14275 1.75725
 10.300 -4.008 15.03532 .28197 .07214 -.02046 .00103 .00381 .02900 .25351 .14279 1.77542
 10.300 -3.018 15.03940 .28163 .07150 -.02093 .00114 .00290 .02142 .25348 .14194 1.78584
 10.300 -1.997 15.03829 .28186 .06849 -.02036 .00076 .00224 .01141 .25443 .15928 1.82676
 10.300 -1.012 15.04510 .28255 .06866 -.02062 .00156 .00377 .00455 .25499 .15984 1.82341
 10.300 .013 15.03946 .28440 .06949 -.02030 .00244 .00368 .00259 .25757 .14076 1.82986
 10.300 1.009 15.03692 .28440 .06949 -.02073 .00332 .00210 .00356 .25662 .14050 1.82125
 10.300 GRADIENT .00070 .00069 -.00055 .00002 -.00086 -.00119 -.00138 -.00131 .00355 .01019

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = -10.000
 ATLRN = -10.000 BDFLAP = -14.250

ALPHA = 15.000 ELEVTR = -10.000
 ATLRN = -10.000 BDFLAP = -14.250

ALPHA = 15.000 ELEVTR = -10.000
 ATLRN = -10.000 BDFLAP = -14.250

DATE 10 SEP 73

TABULATED SOURCE DATA - CFHT96 (LA-11)

LA-11, CFHT 96, ROCKWELL CRB. 0898 W/HOD. NOSE

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(15 AUG 73)

REFERENCE DATA

SHEF = 21.7866 SQ.IN. XHPP = 6.2902 INCHES
 LNEF = 3.5011 INCHES YHPP = .0000 INCHES
 BREF = 7.0251 INCHES ZHPP = .0000 INCHES
 SCALE = .0075

RUN NO. 45/0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ALPHA	CN	CA	CLW	CBL	CYN	CT	CL	CD	L/D
10.300	-9.076	20.10224	.43906	.07740	-.01571	.01064	.06801	.38571	.22359	1.72531	
10.300	-8.060	20.09495	.44100	.07995	-.01781	.01064	.05733	.36841	.22190	1.75038	
10.300	-7.055	20.09455	.44682	.07472	-.01902	.00996	.04790	.39395	.22368	1.76121	
10.300	-6.044	20.08985	.44952	.07472	-.01978	.00180	.00845	.04105	.39650	2.24546	
10.300	-5.039	20.099257	.45337	.07902	-.02053	.00381	.00632	.03563	.39957	2.27113	
10.300	-4.030	20.10212	.45500	.07978	-.02132	.00445	.00516	.02774	.40124	2.2754	
10.300	-3.026	20.10345	.45814	.07531	-.02186	.00154	.00391	.01928	.40434	2.2819	
10.300	-2.021	20.10466	.45799	.07488	-.02177	.00264	.01263	.01169	.40434	2.2774	
10.300	-1.012	20.09799	.45981	.07477	-.02171	-.00364	.00113	.00426	.40611	2.2622	
10.300	.009	20.09582	.45978	.07485	-.02171	-.00454	-.00362	.00327	.40607	2.2627	
10.300	1.006	20.09699	.45936	.07494	-.02214	-.00538	-.00213	-.00936	.40564	2.2622	
10.300	GRADIENT	-.00157	.00081	-.00016	-.00010	-.00098	-.00146	-.00728	.00082	.00270	.00270

LA-11, CFHT 96, ROCKWELL CRB. 0898 W/HOD. NOSE

(15 AUG 73)

REFERENCE DATA

SHEF = 21.7866 SQ.IN. XHPP = 6.2902 INCHES
 LNEF = 3.5011 INCHES YHPP = .0000 INCHES
 BREF = 7.0251 INCHES ZHPP = .0000 INCHES
 SCALE = .0075

RUN NO. 45/0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ALPHA	CN	CA	CLW	CBL	CYN	CT	CL	CD	L/D
10.300	-9.051	25.252029	.63598	.09042	-.02136	.00569	.01267	.06726	.54119	.34359	1.57513
10.300	-8.016	25.16100	.64003	.07869	-.02226	.00396	.01184	.09723	.54573	.34553	1.58859
10.300	-7.017	25.16012	.64332	.07796	-.02297	.00253	.01088	.04760	.54909	.34415	1.59549
10.300	-6.027	25.15417	.64268	.07650	-.02372	.00104	.00931	.03890	.54921	.34242	1.60391
10.300	-5.030	25.15135	.64444	.07623	-.02424	-.00031	.00791	.05113	.55094	.34290	1.60672
10.300	-4.039	25.14903	.64573	.07572	-.02462	-.00165	.00650	.02330	.55239	.34287	1.61108
10.300	-3.012	25.13265	.64939	.07716	-.02611	-.00311	.00469	.01743	.55487	.34553	1.60584
10.300	-2.012	25.12625	.64973	.07811	-.02690	-.00436	.00306	.01040	.55508	.34660	1.60149
10.300	-1.012	25.14091	.65099	.07757	-.02715	-.00545	.00141	.00337	.55637	.34679	1.60433
10.300	-.013	25.12492	.65217	.07778	-.02713	-.00646	-.00033	-.00323	.55744	.34732	1.60497
10.300	-.998	25.12759	.65293	.07811	-.02737	-.00760	-.00195	-.01056	.55797	.34797	1.60348
10.300	GRADIENT	-.00205	.00133	-.00046	-.00017	-.00168	-.00117	-.00280	.00105	.00089	-.00108

(RPD053)

(15 AUG 73)

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = -10.000
 ALRDN = -10.000 BCFLAP = -14.250

(RPD054)

(15 AUG 73)

PARAMETRIC DATA

ALPHA = 25.000 ELEVTR = -10.000
 ALRDN = -10.000 BCFLAP = -14.250

LA-11,CFHT 96, ROCKWELL CRB. 0898 W/HOD. NOSE

(RPG055) (15 AUG 73)

REFERENCE DATA

SREF = 21.7866 30.1M. XREF = 6.2902 INCHES
 LREF = 5.5611 INCHES YREF = .0000 INCHES
 BREF = 7.0251 INCHES ZREF = .0000 INCHES
 SCALE = .0075

RUN NO. 44/ 0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CLR	CYN	CY	CL	CD	L/D	
10.300	-6.925	30.42444	.85319	.08181	-.03226	.00413	.01412	.06474	.69400	.50290	1.37978	
10.300	-7.937	30.39837	.85767	.08147	-.03308	.00281	.01278	.05664	.69331	.50458	1.38397	
10.300	-6.952	30.38428	.85928	.08060	-.03379	.00109	.01139	.04834	.70037	.50433	1.38872	
10.300	-5.952	30.36943	.86068	.07976	-.03288	-.00057	.00968	.04081	.70230	.50424	1.39280	
10.300	-4.963	30.35196	.86187	.07873	-.03316	-.00215	.00834	.03138	.70381	.50367	1.39736	
10.300	-3.969	30.33402	.86346	.07891	-.03351	-.00349	.00686	.02240	.70524	.50440	1.39816	
10.300	-2.969	30.33649	.86562	.07896	-.03429	-.00498	.00523	.01619	.70723	.50532	1.39957	
10.300	-1.995	30.32707	.86851	.07812	-.03504	-.00639	.00344	.00966	.71013	.50609	1.40318	
10.300	-1.007	30.32644	.86890	.07781	-.03530	-.00791	.00173	.00264	.71071	.50590	1.40483	
10.300	-.015	30.33375	.87149	.07742	-.03591	-.00962	.00019	-.00421	.71291	.50673	1.40668	
10.300	.977	GRADIENT	.00172	-.00223	-.00055	-.01069	-.00137	-.01197	.71278	.50747	1.40456	
							-.00149	-.00166	-.00718	.00165	.00060	.00160

LA-11,CFHT 96, ROCKWELL CRB. 0898 W/HOD. NOSE

(RPG056) (15 AUG 73)

REFERENCE DATA

SREF = 21.7866 30.1M. XREF = 6.2902 INCHES
 LREF = 5.5611 INCHES YREF = .0000 INCHES
 BREF = 7.0251 INCHES ZREF = .0000 INCHES
 SCALE = .0075

RUN NO. 43/ 0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CLR	CYN	CY	CL	CD	L/D	
10.300	-6.755	35.35501	1.05417	.08226	-.04662	.00200	.01454	.06271	.82031	.56286	1.20129	
10.300	-7.789	35.31708	1.07115	.08201	-.04717	.00042	.01340	.05491	.82661	.56615	1.20472	
10.300	-6.831	35.27950	1.07900	.08127	-.04731	-.00124	.01168	.04719	.83144	.68781	1.20883	
10.300	-5.848	35.25031	1.08027	.08191	-.04728	-.00282	.01224	.03917	.83492	.69037	1.20938	
10.300	-4.892	35.23569	1.08252	.08114	-.04739	-.00426	.00859	.03168	.83738	.69182	1.21214	
10.300	-3.894	35.21022	1.08503	.08178	-.04731	-.00586	.00585	.02356	.83814	.69570	1.21346	
10.300	-2.831	35.18936	1.08374	.08122	-.04783	-.00736	.00538	.01584	.83888	.69692	1.21415	
10.300	-1.961	35.16323	1.08550	.08273	-.04835	-.00921	.00394	.00799	.84076	.69349	1.21587	
10.300	-.999	35.17722	1.08712	.08058	-.04958	-.01077	.00231	.00244	.84216	.69216	1.21671	
10.300	-.023	35.17506	1.08719	.08024	-.04979	-.01216	.00259	-.00682	.84244	.69190	1.21758	
10.300	.951	35.18156	1.08719	.08082	-.05041	-.01362	-.01116	-.01406	.84203	.69246	1.21599	
							-.00051	-.00012	-.00054	.00095	.00031	.00062

PARAMETRIC DATA

ALPHA = 30.000
 ATIRON = -10.000

(RPG055) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 30.000
 ATIRON = -10.000

(RPG056) (15 AUG 73)

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TABULATED SOURCE DATA - CFHT96 (LA-11)

LA-11,CFHT 96, ROCKWELL CRB. 1098 W/HOD. NOSE

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(RPP057) (15 AUG 73)

REFERENCE DATA

MACH =	21.7866 SB. IN.	XHDP =	6.2902 INCHES
LREF =	3.5611 INCHES	YHDP =	.0000 INCHES
BREF =	7.0251 INCHES	ZHDP =	.0000 INCHES
SCALE =	.0075		

RUN NO.	54 / 0	RNL =	1.00	GRADIENT INTERVAL =	-5.00 / 5.00
ALPHA	BETA	CN	CA	CLN	CL
10.300	9.931	.00111	.13435	.07214	-.01651
10.300	15.013	-.00151	.27567	.06915	-.01269
10.300	20.148	-.00175	.44059	.07374	-.00829
10.300	25.086	-.00226	.68795	.07865	-.00310
10.300	30.182	-.00362	.83680	.07766	-.01007
10.300	35.356	-.00696	1.07461	.06129	-.01693
	GRADIENT				
		-.00026	.03700	.00043	-.00031

LA-11,CFHT 96, ROCKWELL CRB. 1098 W/HOD. NOSE

REFERENCE DATA

MACH =	21.7866 SB. IN.	XHDP =	6.2902 INCHES
LREF =	3.5611 INCHES	YHDP =	.0000 INCHES
BREF =	7.0251 INCHES	ZHDP =	.0000 INCHES
SCALE =	.0075		

RUN NO. 55 / 0 RNL = 1.00 GRADIENT INTERVAL = -5.00 / 5.00

PARAMETRIC DATA

BETA	AIRDN =	.000	ELEVTR =	-30.000
		-10.000	BDFLAP =	-14.250

MACH	ALPHA	CN	CA	CLN	CL	CD	L/D
10.300	10.037	-.4.95322	.13985	-.01257	.00338	.03683	.09460
10.300	15.036	-.4.99100	.58455	-.01068	.00331	.00474	.25580
10.300	20.069	-.5.01133	.45322	-.00726	.00328	.00630	.39961
10.300	25.132	-.4.99024	.64353	-.00518	.00340	.00681	.54931
10.300	30.318	-.4.98791	.65972	.00044	-.00732	.00673	.02942
10.300	35.431	-.4.98088	1.08923	-.00179	-.01765	.00115	.70154
	GRADIENT						
		.00411	.03757	.00095	-.00007	.00012	-.00029

(RPP056) (15 AUG 73)

PARAMETRIC DATA

BETA	AIRDN =	-.5.000	ELEVTR =	-30.000
		-10.000	BDFLAP =	-14.250

MACH	ALPHA	CN	CA	CLN	CL	CD	L/D
10.300	10.037	-.4.95322	.13985	-.01257	.00338	.03683	.09460
10.300	15.036	-.4.99100	.58455	-.01068	.00331	.00474	.25580
10.300	20.069	-.5.01133	.45322	-.00726	.00328	.00630	.39961
10.300	25.132	-.4.99024	.64353	-.00518	.00340	.00681	.54931
10.300	30.318	-.4.98791	.65972	.00044	-.00732	.00673	.02942
10.300	35.431	-.4.98088	1.08923	-.00179	-.01765	.00115	.70154
	GRADIENT						
		.00411	.03757	.00095	-.00007	.00012	-.00029

BETA	AIRDN =	.000	ELEVTR =	-30.000
		-10.000	BDFLAP =	-14.250

DATE 10 SEP 73

TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11,CFHT 96, ROCKWELL CRB. 0098 W/HOD. NOSE

(RPD059) (15 AUG 73)

REFERENCE DATA

BREF = 21.7866 98.1IN. XMP = 6.2902 INCHES
 LREF = 3.5611 INCHES YMP = .00000 INCHES
 ZREF = 7.0251 INCHES ZMP = .00000 INCHES
 SCALE = .0075

RUN NO. 81 / 0 RVNL = 1.00 GRADIENT INTERVAL = -5.00V 5.00

	ALPHA	CN	CA	CLM	CL	CYN	CT	CD	CLD
MACH	.00919	9.86020	.11590	.07514	-.00940	.00704	.00351	.00376	1.07413
10.300	-7.933	9.86838	.11460	.07300	-.01069	.00592	.00352	.00346	1.09650
10.300	-6.932	9.90055	.11677	.07151	-.01205	.00479	.00351	.00317	1.13489
10.300	-5.949	9.91339	.11762	.06994	-.01315	.00397	.00331	.04799	1.16468
10.300	-4.964	9.93794	.11993	.06914	-.01421	.00297	.00313	.03635	1.16223
10.300	-3.980	9.94632	.12569	.07120	-.01456	.00253	.00317	.03284	1.1150
10.300	-2.999	9.95976	.12855	.07060	-.01522	.00193	.00374	.02367	1.1440
10.300	-1.973	9.96126	.12656	.06723	-.01501	.00106	.00360	.01361	1.1304
10.300	-.968	9.96523	.12995	.06864	-.01543	.00022	-.00036	.00594	.1611
10.300	.005	9.96644	.13146	.07049	-.01647	-.00043	-.00159	.00143	.11727
10.300	.995	9.97042	.13103	.07027	-.01598	-.00104	-.00243	-.00392	.1768
	GRADIENT	.00504	.002167	.00000	-.00036	-.00071	-.00033	-.00030	.00163

LA-11,CFHT 96, ROCKWELL CRB. 0098 W/HOD. NOSE

(RPD060) (15 AUG 73)

REFERENCE DATA

BREF = 21.7866 98.1IN. XMP = 6.2902 INCHES
 LREF = 3.5611 INCHES YMP = .00000 INCHES
 ZREF = 7.0251 INCHES ZMP = .00000 INCHES
 SCALE = .0075

	ALPHA	CN	CA	CLM	CL	CYN	CT	CD	CLD
MACH	-.00323	14.91800	.25770	.07625	-.00363	.00737	.00030	.07699	.22906
10.300	-.017	14.92857	.25670	.07372	-.01011	.00641	.00355	.00604	.25047
10.300	-7.012	14.93535	.26020	.07446	-.01084	.00530	.00499	.05734	.23222
10.300	-6.012	14.94130	.25804	.07053	-.01077	.00426	.00625	.04245	.22932
10.300	-5.016	14.95024	.26590	.06992	-.01056	.00368	.00447	.03564	.23179
10.300	-4.003	14.95957	.26376	.07075	-.01269	.00270	.00295	.02933	.23568
10.300	-3.003	14.96573	.26424	.06904	-.01296	.00179	.00213	.02087	.23745
10.300	-2.001	14.96471	.26407	.05811	-.01259	.00113	.00138	.01215	.23753
10.300	-1.010	14.96773	.26622	.06751	-.01243	.00020	.00019	.00529	.23975
10.300	-.004	14.96546	.26787	.06727	-.01303	-.00055	-.00126	.00185	.24137
10.300	1.009	14.97369	.26970	.06779	-.01307	-.00127	-.00268	.00928	.24206
	GRADIENT	.00356	.00116	-.00059	-.00003	-.00079	-.00113	-.00126	.00126

(RPD061) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 15.000 ELEVTR = -50.000
 ATIRON = -10.000 BXFLAP = -14.250

ALPHA = 10.000 ELEVTR = -30.000
 ATIRON = -10.000 BXFLAP = -14.250

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TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RPD061) (15 AUG 73)

REFERENCE DATA

SHEET =	21.7000 30.1M.	XNPY =	0.2902 INCHES
LNPY =	5.9011 INCHES	YNPY =	.0000 INCHES
SHEP =	7.0251 INCHES	ZNPY =	.0000 INCHES
SCALE =	.0073		

RUN NO. 50 / 0 RNL / = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CL	CM	CLL	CM	CY	CL	CD	L/D
10.300	-9.000	20.07977	.42449	.07617	.00407	.01049	.05794	.37165	.21916	1.99672	
10.300	-8.000	20.07982	.42726	.07646	.00494	.00750	.01015	.36999	.37507	.21966	
10.300	-7.000	20.07047	.43314	.07561	.00677	.00921	.04606	.36069	.21966	1.73396	
10.300	-6.000	20.07032	.43495	.07488	.00751	.00555	.00783	.04060	.36291	.21941	
10.300	-5.000	20.06975	.43774	.07493	.00776	.00354	.00598	.03423	.36545	.22037	
10.300	-4.000	20.07127	.44056	.07559	.00861	.00247	.00429	.02712	.36799	.22214	
10.300	-3.000	20.07959	.44165	.07493	.00914	.00143	.00502	.01696	.36935	.22194	
10.300	-2.000	20.08963	.44289	.07439	.00866	.00043	.00167	.01160	.39046	.22185	
10.300	-1.000	20.08753	.44319	.07498	.00860	.00062	.00029	.00454	.39056	.22290	
10.300	.0000	20.08460	.44224	.07327	.00681	.00141	.00142	.00225	.39026	.22055	
10.300	1.000	20.08827	.44016	.07202	.00737	.00236	.00324	.00619	.38972	.21866	
10.300	2.000	20.08033	.44004	.00062	.00025	.00098	.00148	.00016	.00039	.00356	
10.300	3.000	20.00004									

LA-11,CFHT 96, ROCKWELL CRB. 0698 W/HOD. NOSE

(RPD062) (15 AUG 73)

REFERENCE DATA

SHEET =	21.7000 30.1M.	XNPY =	6.2902 INCHES
LNPY =	5.9011 INCHES	YNPY =	.0000 INCHES
SHEP =	7.0251 INCHES	ZNPY =	.0000 INCHES
SCALE =	.0073		

RUN NO. 50 / 0 RNL / = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CL	CM	CLL	CM	CY	CL	CD	L/D
10.300	-9.000	25.24260	.62086	.06144	.00360	.00950	.01132	.06963	.52695	.33843	1.55671
10.300	-8.000	25.22674	.62372	.06043	.00493	.00781	.01063	.06010	.52996	.33859	1.56520
10.300	-7.000	25.21686	.62546	.07934	.00354	.00453	.00963	.04980	.53240	.33844	1.57309
10.300	-6.000	25.20269	.62649	.07784	.00365	.00492	.00818	.04115	.53550	.33808	1.58396
10.300	-5.000	25.19650	.62646	.07665	.00623	.00393	.00677	.03302	.53584	.33685	1.59077
10.300	-4.000	25.18722	.62938	.07672	.00653	.00282	.00536	.02475	.53716	.33741	1.59203
10.300	-3.000	25.17941	.63052	.07642	.00656	.00142	.00370	.01740	.53810	.33741	1.59477
10.300	-2.000	25.17260	.63070	.07609	.00605	.00121	.00187	.01175	.54236	.34120	1.58963
10.300	-1.000	25.17361	.63501	.07782	.00664	.00137	.00324	.02467	.54159	.34054	1.59042
10.300	.0000	25.17184	.63531	.07825	.00661	.00233	.00153	.00236	.54260	.34146	1.58906
10.300	1.000	25.17080	.63643	.07821	.00697	.00334	.00320	.01965	.54273	.34147	1.58940
10.300	2.000	20.00004							.00115	.00090	.00064

DATE 10 SEP 73

TABULATED SOURCE DATA - CFHT96 (LA-11)

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LA-11,CFHT 96, ROCKWELL ORB. 0698 W/MOD. NOSE

(RPD063) (15 AUG 73)

REFERENCE DATA

BET ²	=	21.7688 38.1IN.	30INP	=	6.2902 INCHES
LAT ²	=	5.5611 INCHES	YINP	=	.0000 INCHES
GRAD ²	=	7.0021 INCHES	ZINP	=	.0000 INCHES
SCALE	=	.0073			

RUN NO. 57 / 0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CL ₀	CL ₁	CM	CY	CL	CD	L/D
10.300	-6.918	30.3753	.69782	-.00760	.00965	.01276	.06632	.49513	1.37324	
10.300	-7.934	30.3405	.69921	-.00761	.00746	.01111	.03623	.49390	1.36349	
10.300	-6.935	30.32554	.84013	.00772	-.00774	.00627	.02950	.49442	1.36583	
10.300	-5.945	30.37535	.84280	.00741	.00669	.00822	.00334	.49748	1.39161	
10.300	-4.952	30.26682	.84375	-.00712	.00334	.00664	.03174	.49846	1.39310	
10.300	-3.961	30.25617	.84555	.00790	.00186	.00515	.02121	.49943	1.39449	
10.300	-2.977	30.25092	.84662	.00685	.00346	.00348	.01746	.49576	1.39636	
10.300	-1.975	30.24961	.85144	.00784	-.00599	.00167	.01050	.49643	1.40230	
10.300	-1.999	30.24619	.85126	.00793	-.00234	.00022	.02302	.49614	1.40306	
10.300	-1.002	30.25056	.85168	.00774	-.00993	-.00363	.00168	.49690	.49561	
10.300	.906	30.24696	.85423	.00762	-.01043	-.00530	-.00317	.49781	1.40329	
10.300	GRADENT	-.00564	.00168	-.00337	-.00534	-.0145	-.00168	.00045	.00211	

LA-11,CFHT 96, ROCKWELL ORB. 0698 W/MOD. NOSE

(RPD064) (15 AUG 73)

REFERENCE DATA

BET ²	=	21.7688 38.1IN.	30INP	=	6.2902 INCHES
LAT ²	=	5.5611 INCHES	YINP	=	.0000 INCHES
GRAD ²	=	7.0021 INCHES	ZINP	=	.0000 INCHES
SCALE	=	.0073			

RUN NO. 56 / 0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CL ₀	CL ₁	CM	CY	CL	CD	L/D
10.300	-6.743	35.62658	1.07623	.00281	-.01929	.00780	.01307	.06599	.82098	1.19537
10.300	-7.759	35.59277	1.08529	.00213	-.01802	.00607	.01149	.05773	.83473	1.19513
10.300	-6.791	35.56035	1.08784	.00396	-.01536	.00451	.01004	.04940	.83768	1.19553
10.300	-5.869	35.562451	1.09107	.001707	-.01707	.00299	.00637	.04176	.84059	.70335
10.300	-4.850	35.49780	1.09230	.00150	-.01787	.00154	.00657	.03358	.84196	.70362
10.300	-3.814	35.47775	1.09371	.00155	-.01766	-.00009	.00492	.02560	.84495	.70234
10.300	-2.824	35.46532	1.09630	.00129	-.01776	-.00153	.00323	.01798	.84573	.70229
10.300	-1.820	35.44739	1.09607	.00121	-.01824	-.00310	.00175	.00982	.84582	.70183
10.300	-0.808	35.44499	1.09729	.00048	-.01864	-.00473	.00023	.00167	.84726	.70190
10.300	-0.039	35.43056	1.09700	.00082	-.01805	-.00622	-.00152	-.00520	.84756	.70239
10.300	.963	35.44493	1.09704	.00034	-.01959	-.00771	-.00310	-.01363	.84714	.70165
10.300	GRADENT	-.00849	.00071	-.00021	-.00031	-.00159	-.00166	-.00017	.00082	.00010

(RPD064) (15 AUG 73)

DATE 10 SEP 73

TABULATED SOURCE DATA - CFHTS (LA-11)

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AII: CENR '96. BIMESTRAL 288. 0099 0000. NOSE

REFERENCE DATA
 ELEVTR = .000
 BDFLAP = 10.000
 ALTRON = 10.000
 BETA = .000
 S = 6.2502 INCHES
 D = 21.7666 SQ. INCH.
 RAMP = .000

BIBLIOGRAPHIC DATA

RUN NO.	T ₀ /D	R ₀ /L	1.00	GRADIENT INTERVAL = -5.00/D 5.00/D				
				BETA	CN	CA	CLM	CLL
ALPHA	9.979	-0.00573	.13567	.07187	-.01686	.00196	-.00070	-.02269
MACH	10.300	14.976	-0.00416	.27526	.04894	.01270	.00140	-.00196
	10.300	20.113	-0.00255	.44324	.07540	-.00776	.00132	-.00173
	10.300	25.163	-0.00184	.63141	.07601	-.00739	.00149	-.00126
	10.300	30.176	-0.00108	.84186	.07602	-.00947	.00126	-.00109
	10.300	35.176	-0.00030	1.06290	.08126	-.01685	.00162	-.00088
	10.300	40.176	-0.00019	.03726	.00005	.00001	-.00004	-.00004

LA-1111 GHT 36, POCHEL 008. USED WOOD. NOSE

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6,290 INDES	6,290 INDES	6,290 INDES
YTD	YTD	YTD
\$1,7000 SR. IN.	\$1,7000 SR. IN.	\$1,7000 SR. IN.
3,901 INDES	3,901 INDES	3,901 INDES
YTD	YTD	YTD

GRADIENT INTERVAL = -5.00V

	α	β	γ	δ	ϵ	ζ	η	θ	φ	ψ	χ	ψ	ω
MACH	ALPHA	BETA	CA	CM	CL	CY	CY	DA	DC	DD	DP	L/D	
10..300	9.332	-4.91651	.140305	.07192	-.01536	.00486	.00468	.0596	.06900	1.32155			
10..300	15.061	-4.97309	.280341	.06996	-.01152	.00514	.00713	.05033	.05051	1.79739			
10..300	30.180	-4.91094	.261153	.06430	-.07733	-.00562	.00746	.01750	.0184	.22614	1.77441		
10..300	35.477	-4.88057	1.08676	.06177	-.01726	-.00694	.00752	.01653	.01667	.03592	1.59916	.34406	
10..300	35.477	-4.88057	1.08676	.06177	-.01726	-.00694	.00752	.01653	.01667	.03592	1.40011	.49954	
10..300	35.477	-4.88057	1.08676	.06177	-.01726	-.00694	.00752	.01653	.01667	.03592	1.20296	.70369	
10..300	35.477	-4.88057	1.08676	.06177	-.01726	-.00694	.00752	.01653	.01667	.03592	.02382	-.01101	

LA-11,CFHT 95, ROCKWELL CRB. 0098 W/MOD. NOSE

(RPD067) (15 AUG 73)

REFERENCE DATA

SREF = 21.7000 30.1IN. XREF = 6.2902 INCHES
 LREF = 3.5611 INCHES YREF = .0000 INCHES
 BREF = 7.0251 INCHES ZREF = .0000 INCHES
 SCALE = .0075

RUN NO. 777 0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CX	CY	CZ	CXN	CYN	CZN	CD	CL	CD ²
10.300	-0.736	35.32913	1.14127	.08016	-.01672	.01522	.01368	.00635	.603082	.67034	1.19456
10.300	-7.751	35.48648	1.04922	.07546	-.01627	.01582	.01201	.05939	.00471	.67129	1.19675
10.300	-6.769	35.45723	1.04696	.07331	-.01572	.01211	.01049	.05146	.00642	.67310	1.20104
10.300	-5.803	35.48632	1.05114	.07314	-.01548	.01080	.01062	.04393	.01069	.67346	1.20406
10.300	-4.853	35.38051	1.05213	.07956	-.01545	.00951	.00713	.03612	.01166	.67415	1.20398
10.300	-3.867	35.37895	2.05137	.07693	-.01466	.00870	.00541	.02874	.01153	.67508	1.20569
10.300	-2.911	35.35529	1.76334	.07882	-.01514	.00845	.00384	.02127	.01347	.67379	1.20730
10.300	-1.937	35.34781	1.03222	.07828	-.01520	.01493	.00245	.01362	.01296	.67280	1.25867
10.300	-.967	35.34343	1.05226	.07694	-.01529	.00341	.00293	.00355	.01324	.67350	1.20747
10.300	.005	35.34021	1.55384	.07866	-.01594	.00193	-.00778	-.00187	.01424	.67390	1.20793
10.300	.971	35.34167	1.03229	.07627	-.01597	.00550	-.00236	.00336	.01310	.67254	1.20699
10.300	GRADIENT	-.00959	.00016	-.00012	-.00014	-.00155	-.00161	-.00769	-.00013	.00073	

LA-11,CFHT 95, ROCKWELL CRB. 0098 W/MOD. NOSE

(RPD068) (15 AUG 73)

REFERENCE DATA

SREF = 21.7000 30.1IN. XREF = 6.2902 INCHES
 LREF = 3.5611 INCHES YREF = .0000 INCHES
 BREF = 7.0251 INCHES ZREF = .0000 INCHES
 SCALE = .0075

RUN NO. 700 0 RNL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CX	CY	CZ	CXN	CYN	CZN	CD	CL	CD ²
10.300	-0.860	30.36013	.00354	.07346	-.00726	.01363	.01320	.06559	.653350	.47426	1.37794
10.300	-7.939	30.30284	.00346	.07694	-.00736	.01261	.01165	.05773	.636822	.47559	1.36264
10.300	-6.934	30.27001	.00333	.07776	-.00722	.01180	.01000	.04914	.63692	.47482	1.36831
10.300	-5.936	30.25037	.00307	.07725	-.00722	.00965	.00857	.04145	.65998	.47432	1.39141
10.300	-4.939	30.22524	.00331	.07649	-.00674	.00715	.00316	.02567	.663395	.47299	1.39520
10.300	-3.933	30.21729	.01304	.07673	-.00759	.00724	.00568	.01861	.66419	.47543	1.39635
10.300	-2.972	30.20492	.01320	.07673	-.00606	.00567	.00407	.00226	.66842	.47650	1.40247
10.300	-1.996	30.18729	.01742	.07597	-.00657	.00421	.00071	.00532	.66840	.47592	1.40445
10.300	-.002	30.16490	.01706	.07532	-.00603	.00255	.00100	-.00169	.66925	.47665	1.40407
10.300	.994	30.16634	.01656	.07599	-.00606	.00000	-.00256	-.00659	.66935	.47727	1.40243
10.300	GRADIENT	-.00709	.00162	-.00019	-.00039	-.00146	-.00165	-.00697	.00155	.00056	

(RPD069) (15 AUG 73)

PARAMETRIC DATA

ALPHA	30.000	ELEVTR	-30.000
ATLRON	10.000	BLFLAP	-14.250
ALPHA =	30.000	ELEVTR =	-30.000
ATLRON =	10.000	BLFLAP =	-14.250

ALPHA	30.000	ELEVTR	-30.000
ATLRON	10.000	BLFLAP	-14.250
ALPHA =	30.000	ELEVTR =	-30.000
ATLRON =	10.000	BLFLAP =	-14.250

LA-11, CRPT 96, ROCKWELL CRB. 0098 W/ROD. NOSE

(RPD969) (15 AUG 73)

REFERENCE DATA

	SI. 7000 20. IN.	TRIP	=	6.3002 INCHES
SI/ST	SI. 3611 INCHES	TRIP	=	.0000 INCHES
SI/ST	7.0031 INCHES	TRIP	=	.0000 INCHES
SCALE	.00075			

RUN NO. 75/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLM	CLR	CTN	CTR	CD	L/D
10.300	-9.004	SI. 30732	.68157	.00164	.00095	.01364	.01222	.07014	.34863
10.300	-9.011	SI. 30981	.68207	.00035	-.00467	.01163	.01150	.03992	.34246
10.300	-7.001	SI. 27993	.63252	.07910	-.00474	.01050	.01027	.02031	.1.96063
10.300	-6.001	SI. 25392	.63274	.07850	-.00536	.00956	.00926	.04366	.1.97326
10.300	-5.000	SI. 23006	.63320	.07742	-.00515	.00814	.00767	.03511	.34103
10.300	-4.004	SI. 24045	.63356	.07741	-.00544	.00664	.00587	.02616	.1.56710
10.300	-3.006	SI. 23721	.63412	.07693	-.00576	.00570	.00468	.02084	.34081
10.300	-1.000	SI. 24107	.63641	.07673	-.00606	.00453	.00313	.01529	.1.59439
10.300	-1.015	SI. 23613	.64160	.07700	-.00733	.00307	.00116	.00846	.54726
10.300	-.003	SI. 222647	.64069	.07610	-.00886	.00209	-.00043	.00196	.34373
10.300	GRADIENT	-.00412	.00197	.00020	-.00046	-.00117	-.00161	.00172	.00299

LA-11, CRPT 96, ROCKWELL CRB. 0098 W/ROD. NOSE

(RPD969) (15 AUG 73)

REFERENCE DATA

	SI. 7000 20. IN.	TRIP	=	6.3002 INCHES
SI/ST	SI. 3611 INCHES	TRIP	=	.0000 INCHES
SI/ST	7.0031 INCHES	TRIP	=	.0000 INCHES
SCALE	.0075			

RUN NO. 74/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLM	CLR	CTN	CTR	CD	L/D
10.300	-9.004	SI. 02987	.43975	.00162	-.00382	.01144	.00995	.07817	.1.69137
10.300	-8.004	SI. 02928	.43342	.07575	-.00353	.01029	.01036	.05759	.34126
10.300	-7.043	SI. 01970	.43620	.07355	-.00730	.00866	.01002	.04690	.1.73024
10.300	-6.043	SI. 01942	.43751	.07452	-.00763	.00751	.00852	.04005	.36557
10.300	-5.036	SI. 01941	.43974	.07387	-.00726	.00827	.00713	.03279	.21994
10.300	-4.001	SI. 01635	.44149	.07412	-.00767	.00759	.00564	.02732	.1.78354
10.300	-3.016	SI. 01459	.44010	.07306	-.00787	.00686	.00452	.01975	.22074
10.300	-2.019	SI. 00297	.44123	.07270	-.00711	.00685	.00267	.01267	.21936
10.300	-1.013	SI. 01581	.44349	.07476	-.00849	.00253	.00110	.00719	.39299
10.300	-.006	SI. 002759	.44563	.07456	-.00783	.00173	-.00245	.02069	.39315
10.300	1.005	SI. 002156	.44364	.07323	-.00701	.00084	-.00198	.00958	.39175
10.300	GRADIENT	.00133	.00091	.00006	-.00009	-.00155	-.00269	.00037	.00075

LA-11,CFHT 96, ROCKWELL CRIS, 0698 WIND, NOSE

(RPD071) (15 AUG 73)

REFERENCE DATA

SHEET #	C1-7000 30. IN.	WIND	=	6.29E2 INCHES
1007 #	3.5611 INCHES	WIND	=	.0000 INCHES
1007 #	7.0031 INCHES	WIND	=	.0000 INCHES
SCALE #	.00075			

RUN NO. 73V 0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CH	CA	CM	CL	CY	CD	L/D
10.300	-9.000	14.9421	.26580	.07784	-.00461	.01006	.00782	.01697	.01510
10.300	-9.030	14.9421	.26673	.07459	-.01010	.00871	.00776	.02655	.04066
10.300	-7.026	14.85824	.26650	.07223	-.01127	.00799	.00620	.02681	.03699
10.300	-6.015	14.85565	.26606	.07100	-.01195	.00633	.00754	.02655	.03662
10.300	-5.027	14.86334	.26622	.06867	-.01223	.00542	.00717	.02945	.03776
10.300	-4.013	14.96357	.27392	.07199	-.01280	.00496	.00602	.02610	.03541
10.300	-3.006	14.97547	.27211	.06834	-.01310	.00394	.00583	.02360	.04521
10.300	-2.009	14.98683	.27114	.06606	-.01362	.00303	.00551	.01434	.03690
10.300	-1.013	14.98736	.27159	.06687	-.01367	.00226	.00426	.02775	.03766
10.300	-.007	14.98737	.27154	.06690	-.01216	.00167	.00334	.02682	.03799
10.300	.997	14.98511	.27745	.06696	-.01249	.00107	.00179	.02185	.03996
10.300	GRADIENT	.000420	.00035	-.00025	.00012	-.00017	-.00122	-.02187	-.00001

LA-11,CFHT 96, ROCKWELL CRIS, 0698 WIND, NOSE

REFERENCE DATA

(RPD072) (15 AUG 73)

MACH	BETA	ALPHA	CH	CA	CM	CL	CY	CD	L/D
10.300	-9.000	9.97353	.12735	.01152	.00840	.00472	.00227	.11239	.09748
10.300	-7.929	9.97051	.12735	.01277	.00823	.00483	.00693	.11290	.09546
10.300	-6.941	9.96569	.12654	.07270	-.01369	.00722	.00466	.11396	.121357
10.300	-5.937	10.01905	.13026	.07176	-.01447	.00616	.00449	.114837	.11561
10.300	-4.965	10.02863	.13056	.07086	-.01501	.00519	.00424	.113876	.09333
10.300	-3.963	10.04224	.13332	.06990	-.01525	.00490	.00332	.03034	.12595
10.300	-2.974	10.05774	.13582	.07032	-.01346	.00370	.00259	.02166	.12131
10.300	-1.963	10.07050	.13602	.06859	-.01599	.00269	.00168	.01361	.09131
10.300	-.993	10.05969	.13703	.07029	-.01533	.00216	.00062	.02574	.12267
10.300	.997	10.06226	.13659	.07252	-.01614	.00160	-.00069	-.00237	.12276
10.300	GRADIENT	.0004197	.00035	-.00025	.00012	-.00119	-.00069	-.00221	-.00116

(RPD071) (15 AUG 73)

(RPD072) (15 AUG 73)

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = -30.000

ALPHA = 10.000 ELEVTR = -14.250

MACH	BETA	ALPHA	CH	CA	CM	CL	CY	CD	L/D
10.300	-9.000	9.97353	.12735	.01152	.00840	.00472	.00227	.11239	.09748
10.300	-7.929	9.97051	.12735	.01277	.00823	.00483	.00693	.11290	.09546
10.300	-6.941	9.96569	.12654	.07270	-.01369	.00722	.00466	.11396	.121357
10.300	-5.937	10.01905	.13026	.07176	-.01447	.00616	.00449	.114837	.11561
10.300	-4.965	10.02863	.13056	.07086	-.01501	.00519	.00424	.113876	.09333
10.300	-3.963	10.04224	.13332	.06990	-.01525	.00490	.00332	.03034	.12595
10.300	-2.974	10.05774	.13582	.07032	-.01346	.00370	.00259	.02166	.12131
10.300	-1.963	10.07050	.13602	.06859	-.01599	.00269	.00168	.01361	.09131
10.300	-.993	10.05969	.13703	.07029	-.01533	.00216	.00062	.02574	.12267
10.300	.997	10.06226	.13659	.07252	-.01614	.00160	-.00069	-.00237	.12276
10.300	GRADIENT	.0004197	.00035	-.00025	.00012	-.00119	-.00069	-.00221	-.00116

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = -30.000

ALPHA = 10.000 ELEVTR = -14.250

DATE 10 SEP 71

TABULATED SOURCE DATA - OPTIMUS LA-111

LA-111, OPTIT 96, ROCKWELL-CO. 0000 WARD. NOSE

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(OPT0073) (15 AUG 73)

REFERENCE DATA

```

SIGHT = 21.7000 50.1M. 100P = 6.2002 INCHES
        3.5611 INCHES 1MP = .0000 INCHES
        7.0251 INCHES 2MP = .0000 INCHES
SCALE = .0073

```

RUN NO. 22/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CA	CIN	CLN	CLR	CYN	CY	CD	CLD
10.3000	10.0000	-.000517	.15959	.07156	-.00001	.00073	-.00120	-.00176	.14074	.00756
10.3000	15.193	-.000633	.30321	.07039	-.00000	.00046	-.00118	-.00274	.27997	.14039
10.3000	20.131	-.000208	.48473	.07715	.00271	.00045	-.00132	-.00050	.42659	.23687
10.3000	25.285	-.001179	.66270	.08129	-.00379	.00082	-.00136	-.00023	.59174	.36916
10.3000	30.222	-.002682	.80260	.08628	-.07645	-.00032	-.00127	-.00046	.75393	.53311
10.3000	35.463	-.003401	1.16922	.08628	-.10226	-.00114	-.00121	-.00060	.91119	.75344
	GRADIENT		.00052	.00071	-.00090	-.00007	-.00000	-.00015	.03071	-.01346

LA-111, OPTIT 96, ROCKWELL-CO. 0000 WARD. NOSE

(OPT0074) (15 AUG 73)

REFERENCE DATA

```

SIGHT = 21.7000 50.1M. 100P = 6.2002 INCHES
        3.5611 INCHES 1MP = .0000 INCHES
        7.0251 INCHES 2MP = .0000 INCHES
SCALE = .0073

```

RUN NO. 23/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CA	CIN	CLN	CLR	CYN	CY	CD	CLD
10.3000	10.0000	-.000773	.15961	.07277	-.00299	.00056	.00067	.00704	.14440	.00759
10.3000	15.207	-.01454	.31322	.07514	-.00397	.00042	.00479	.03644	.28330	.15383
10.3000	20.086	-.03086	.49534	.07860	-.04249	.00245	.00991	.03472	.43646	.24347
10.3000	25.273	-.01093	.70759	.08155	-.05996	.00686	.00713	.03037	.60405	.37177
10.3000	30.225	-.04763	.93250	.08556	-.07403	.00737	.02949	.03717	.78266	.54334
10.3000	35.544	-.040256	1.19159	.08960	-.10373	.00700	.00714	.03051	.91700	.76564
	GRADIENT		.00459	.00033	-.00066	-.00005	.00000	.00014	.03073	-.01565